

LINE TECH INDUSTRIAL COMPANY LIMITED

**Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing
(CMP) Basis**

Environmental Management Plan (EMP) Report

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Annexure 11 BIBLIOGRAPHY

Reference

- Environmental Conservation Law 2012
- Environmental Conservation Rules 2014
- Environmental Impact Assessment Guidelines 2014
- Environmental Impact Assessment Procedure 2015
- Environmental Quality (Emission) Guideline 2015
- National Environmental Policy of Myanmar 2019
- Plant Species of IUCN Red List in Myanmar 2016, Forest Department
- Bago Township Profile 2018, General Administration Department
- Bago Township Report Oct 20, Department of Population
- Soil Types and Characteristic of Myanmar, Ministry of Agriculture and Irrigation

Acronyms and abbreviations

ALARP	As low as reasonably practicable
BOD	Board of Director
BRIC	Bago Region Investment Committee
CMP	Contract, Manufacturing, and Processing
CSR	Corporate Social Responsibility
DICA	Directorate of Investment and Company Administration
ECC	Environmental Compliance Certificate
ECD	Environmental Conservation Department
EHS	Environment, Health & Safety
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMMP	Environmental Management and Monitoring Program
GAD	General Administration Department
GDP	Gross Domestic Product
HSE	Health, Safety and Environment
LAeq	Equivalent Continuous Sound Level A-weighted
JICA	Japan International Cooperation Agency
LTICL	Line Tech Industrial Company Limited
MD	Managing Director
MFSD	Myanmar Fire Services Department
MIFER	Ministry of Investment and Foreign Economic Relations
MOECF	Ministry of Environmental Conservation and Forestry
MOEE	Ministry of Energy and Electricity
MONREC	Ministry of Natural Resources and Environmental Conservation
MOTC	Ministry of Transportation and Communications
NEQEG	National Environmental Quality Emission Guidelines
PPE	Personal Protective Equipment
TCU	True Color Unit
ToR	Terms of Reference
WHO	World Health Organization

1. Executive Summary

Environmental Management Plan (EMP) Report Executive Summary of The Consumer Electronics Manufacturing Project Using the Contract, Manufacturing, And Processing (CMP) System of Line Tech Industrial Co., Ltd. is present in here.

1.1 Introduction

The Project proponent and the Third-Party Environmental Experts are present briefly in this section is described more in Section 1.

1.1.1 Presentation of the Project Proponent

The following company incorporated in Taiwan is Parent Company to operate in accordance with the Foreign Investment Law for the proposed project “Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis”.

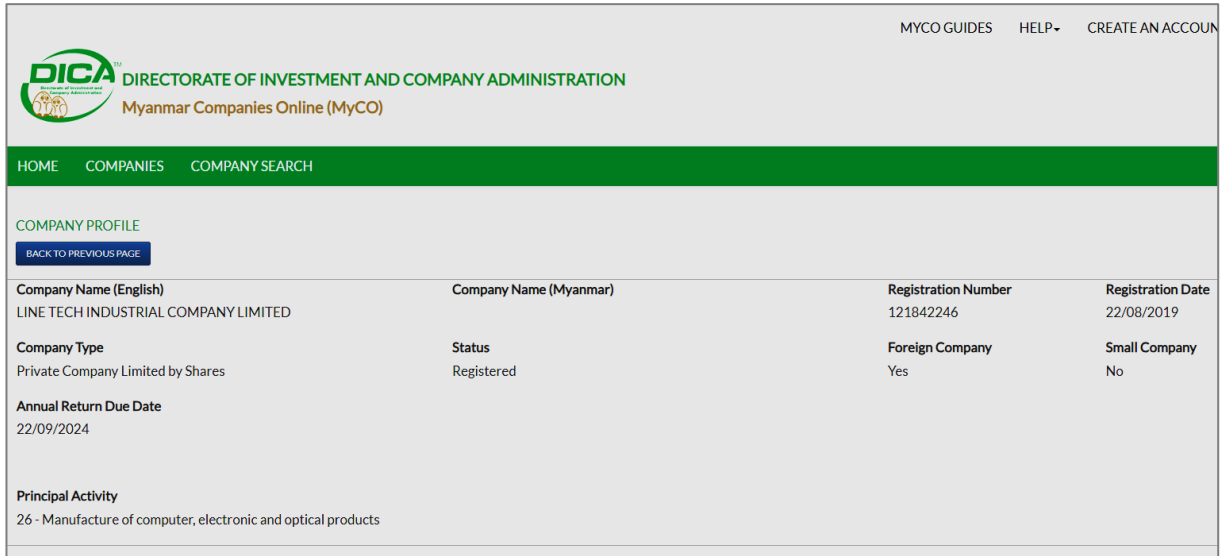
Company	Address
Line Tech Industrial Company Limited (Represented by) Mr. Wang, Chia-Long PP No. 302604671 (Taiwan) Mr. Jim Wang	No.82-7/2 Floor, Guang Xia Street, San Chong Quarter, Xing Bei State, Taiwan Email: jim@linetech.com.tw Tel: 886-2-2999-0290 Web Site: www.linetech.com.tw

The following company is solely proponent of the proposed Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

Company	Address
Line Tech Industrial Company Limited (Represented by) Mr. Wang, Chia-Long PP No. 302604671 (Taiwan) Mr. Jim Wang	Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region, Myanmar Email: jim@linetech.com.tw Tel: 09427495002 Web Site: www.linetech.com.tw
Line Tech Industrial Company Limited (Contact Person) U San Win Tun	Tel: 09 421127669

Line Tech Industrial Company Limited (LTICL) was incorporated under the Myanmar Companies Act with certification No.121842246 on 22.8.2019. LTICL has registered at Directorate of Investment and Company Administration (DICA), Ministry of Investment and Foreign Economic Relations (MIFER) for the business mentioned below accordingly under Myanmar Laws & Regulations:

26 – Manufacture of computer, electronic and optical products



The screenshot shows the Myanmar Companies Online (MyCO) website. The header includes the DICA logo and the text "DIRECTORATE OF INVESTMENT AND COMPANY ADMINISTRATION Myanmar Companies Online (MyCO)". The navigation bar has links for HOME, COMPANIES, and COMPANY SEARCH. The main content area is titled "COMPANY PROFILE" and includes a "BACK TO PREVIOUS PAGE" button. The company details are as follows:

Company Name (English) LINE TECH INDUSTRIAL COMPANY LIMITED	Company Name (Myanmar)	Registration Number 121842246	Registration Date 22/08/2019
Company Type Private Company Limited by Shares	Status Registered	Foreign Company Yes	Small Company No
Annual Return Due Date 22/09/2024			
Principal Activity 26 - Manufacture of computer, electronic and optical products			

The following company/personnel is investing capital equivalent in Kyat of foreign capital to be brought in US\$ 1.351 Million to promote the proposed project; the Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

Investor/Promoter	% of Investment Company	Country of Origin
Line Tech Industrial Co., Ltd. (Rep by) Mr. Wang, Chia-Long	100%	Taiwan

Line Tech Industrial Company Limited will be functioned as an administrative body of the Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis under the direction of investors of LTICL. The investors operate through appointed director and staff. The mentioned below investors are registered as directors in the certificate of incorporation according to Myanmar Companies Act.

Wholly foreign owned Company (Line Tech Industrial Company Limited)

Name	Nationality, Passport No.	Position
Mr. Wang, Chia-Long	Taiwan (PP No. 302604671)	Managing Director
Mr. Lin, Ta-Yuan	Taiwan (PP No. 31462051)	Director

Purpose and Scope of Proposed Project

Purpose to invest Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis operation.

Aim to get official's approval/permission order ECCD Certificate from ECD to operate under Myanmar laws which includes environmental laws, rules, regulations.

Scopes include preparing EMP Report for the proposed project with helps from by eligible Third-Party Environmental Study Team and submitting by proponent to get ECCD.

Project Implementation Time Schedules

Project implementation time is scheduled as below according to BRIC approval.

Phase	Commence	Duration	Note
Development	2019 Dec	1 Year	100% completed
Operation	2020 Dec	20 Year	On going
Abandonment	TBA	3 – 6 Month	N/A

1.1.2 Presentation of Third-Party Environmental Expert

LTICL has assigned environmental study team in May 2024 to conduct environmental assessment and to prepare environmental management plan for the Proposed Project according to EIA procedures. The following personnels are member of Environmental Study Team organized to conduct environmental assessment and to prepare on EMP of proposed project; Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis. Description detailed are present in Section 1.2.

Environmental Study Consultant Team & Schedule

Duration – May 2024 (commenced study on 9th May 2024)

Environmental Study Team –

Member –

Environmental Study Consultant Team Member		
No	Consultant Name	Expertise Field & Working Experience
1	U Khin Maung Myoe M.Sc. (Chemistry) M.S. (Environmental Science)	Risk Assessment and Hazard Management EIA-C 034/2023 (1.12.2023) Environmental Working experience since 1998
2	Dr. Zin Min Ph.D. (Environmental Science)	Ecology and Biodiversity EIA-C 033/2023 (1.12.2023) Environmental Working experience since 2000
3	Dr. Khun Hlaine Myint Ph.D. (Geology)	Geological Assessment EIA-C 032/2023 (1.12.2023) Environmental Working experience since 2000
4	Daw Nu Nu Aye M.Sc. (Analytical Chemistry)	Water Pollution Prevention, Control, Monitoring and Prediction of Impacts EIA-C 035/2023 (1.12.2023) Environmental Working experience since 2013
5	Dr. Tin Naing M.B.B.S., DTM&H	Health (Impact Studies and Analysis) EIA-AC 039/2023 (1.12.2023) Occupational & Industrial Health Working experience since 2013

Assisting Member		
No	Name	Roles Involved & Working Experience
1	Dr. Zeya PhD. (Chemistry)	Waste management; Occupational health; Substance use management. Environmental Working experience since 1983
2	Dr. Tin Aye Myint PhD (Engineering Chemistry)	Occupational health; Substance use management. Environmental Working experience since 1983
3	U Hein Thike B.Sc. (Botany), Dip. In GIS	Information gathering; Field Studies; Environmental quality survey; public meeting and discussion; Report writing. Environmental Working experience since 2014

4	U Saw Hti Moo B. E. (Textile), Dip. In GIS	Field studies; Survey of current environmental quality; Public Consultation and discussion; Report writing. Environmental Working experience since 2019
5	U Zaw Bala BBA (MIT), B.A. (English), Dip. In IT (NMC)	Field studies; Survey of environmental quality; Public Consultation. Environmental Working experience since 2023
6	U Hein Htet MB.A., M.Sc. (Sustainability Management), B.A. (IR)	Field studies; Public Consultation, Report writing. Environmental Working experience since 2018
7	U Khun Sai Wan B.E. (Mechanical)	Report writing Environmental Report Writing since 2014
8	Dr. Po Po Maung Ph.D. (Environmental Law), LLM (Cooperativism in Legal, Economic and Social Affairs), LLM (Civil Law), LLB	Report writing Environmental Report Writing since 2014
9	U Aung Chan Min B.A. (Geography)	Field studies; Survey of environmental quality; Environmental Working experience since 2018

1.2 Policy, Legal and Institutional Framework

Project's environmental, socio-economic and where relevant, health policies and commitments, legal requirements and institutional arrangements are present.

1.2.1 Project Required by Law

Under Section 3 of the Environmental Impact Assessment Procedure (2015), pursuant to section 21 of the law and Articles 52, 53 and 55 of the Environmental Conservation Rules, all projects and project expansions undertaken by any organization, which may cause impact on environmental quality that, are required to obtain prior permission. This is to be in accordance with section 21 of the Environmental Conservation Law, and Article 62 of the Environmental Conservation Rules, having the potential to cause adverse impacts,

that are required to undertake IEE or EIA or to develop an EMP, and to obtain an Environmental Compliance Certificate (ECC) in accordance with this EIA procedure.

Line Tech Industrial Co., Ltd.'s CONTRACT, MANUFACTURING, AND PROCESSING (CMP) system for the production of consumer electronics is required to prepare and submit Environmental Management Plan (EMP) to Ministry of Natural Resources and Environmental Conservation (MONREC), Naypyitaw through Department of Environmental Conservation (ECD), Bago Region in accordance with the EIA Procedure.

In article 76.- For Project types which require EMP according to the Article 55 (a) of the Rules or Article 24 of the Procedure, the Project Proponent may prepare an EMP by itself or may appoint a person or organization who/which is registered according to the Article 18.

In Article 77.- The Project Proponent shall issue a letter of endorsement in a format prescribed by the Ministry according to the Article 63. Such letter shall be submitted to the Department prepared either in the Myanmar language, or in the English language or both. The Project Proponent shall submit the EMP to the Department in both digital form and complete paper copies, together with the required service fee as prescribed by the Department, and confirming:

- a) the accuracy and completeness of the EMP;
- b) that the EMP has been prepared in strict compliance with applicable laws including this Procedure; and
- c) that the Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP.

1.2.2 Contractual and Other Commitments

According to the Article 77, the Project Proponent issues undertaking letter of endorsement which confirming that:

- a) the accuracy and completeness of the EMP;
- b) that the EMP has been prepared in strict compliance with applicable laws including this Procedure; and
- c) that the Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP.

LTICL commit to conduct Environmental Conservation Program in collaboration with Environmental Experts as necessary. In addition, LTICL commit to comply with Environmental Laws, Procedures, Orders, & Instruction issued from MONREC.

Project Proponent commits to perform its operation under applicable Myanmar Laws throughout project period (developing phase, operation phase, decommissioning, closure and post-closure).

Project Proponent commits to implement at all time fully with the commitments, mitigation measures, and plans in the EMP Report.

Project Proponent commit to perform CSR activities with reserved CSR budget (2% of annual net income money is planned) for the sustainable development of the local community but not limited to.

Line Tech Industrial Co., Ltd. shall be responsible for the implementation of environmental management and monitoring of proposed project as follows:

The investor understands importance of the project related environmental management system and undertaken to perform Environmental Management Plan of Proposed Project throughout project period

The investor to ensure Environmental Management and Monitoring Program performing with separate environmental budget as described in approved EMP Report.

Submitting environmental monitoring report six-monthly to ECD

Planning and implementation of CSR activities

To set up social welfare plan such as staff medical benefits, transport arrangement, personal skill development training program and internal knowledge sharing sessions and exercises covering environmental, health, safety, firefighting, emergency response drill, and anomaly reporting, etc.

To carry out fire safety assessment and ensure adequate and appropriate fire safety measures for employees in collaboration with Myanmar Fire Services Department (MFSD).

LTICL proposed project required to prepare EMP with (states to comply with requirements in conducting environmental conservation activities for proposed project mentioned below and report submit directly to Ministry of Natural Resources and Environmental Conservation (MONREC) through Bago Region ECD as advised by relevant authority which complying Myanmar EIA Procedures.

- (a) LTICL has to provide all proposed project data and has to use the systems which may cause minimum environmental impact only as low as reasonably practicable (ALARP) to reduce potential environmental, socio-eco, and health impacts in its proposed project activities. LTICL has to comply strictly in its commitments which including commitment to conduct Corporate Social Responsibility (CSR) activities by using 2% of annual net benefits.
- (b) LTICL has to prepare Environmental Management Plan (EMP) based on results come out from environmental assessment for proposed project, and LTICL has to comply as prepared EMP. Prepared EMP which compiled with Project Operation & Maintenance Plan that affecting zero (or) minimum impact to environment and socio-eco of local people, Waste (Solid/Water) Management Plan, Monitoring Plan, Budget for Environmental Conservation Tasks according to EIA Procedure and comply with it.
- (c) LTICL has to follow Myanmar enacted environmental laws, rules, regulations, guidelines (Environmental Conservation Law, Procedures, Environmental Impact Assessment Procedures, National Environmental Quality (Emission) Guidelines (NEQEG) in its IEE, EIA, & EMP preparations and has to submit the fulfilled form together with reports required by the submission procedure.

1.2.3 Policy and Legal Framework

LTICL undertakes to comply with relevant existing applicable laws and rules, International Conventions, Treaties and Agreements, and national and international standards and guidelines include in this section as Policy and Legal Framework for the proposed project are briefly presented below and detailed are also described in Section – 2.

1. Constitution 2008
2. Environmental Conservation Law, 30 March 2012
3. Environmental Conservation Rules, 2014
4. Environmental Impact Assessment Procedure (December 2015)
5. National Environmental Quality (Emission) Guideline (NEQG) (December 2015)
6. National Environmental Policy of Myanmar (2019)
7. Foreign Investment Law, 2012

8. Foreign Investment Rule, 2013
9. Myanmar Investment Rule, 2017
10. Myanmar Insurance Law (1993)
11. Payment of Wages Law (2016)
12. The Amended Law for Factories Act, 1951 (2016)
13. The Private Industrial Enterprise Law, 1990
14. The Export and Import Law (2012)
15. The Prevention of Hazard from Chemical and Related Substances Law, 2013
16. Underground Water Act
17. Myanmar Fire Brigade Law (2015)
18. The Electricity Law (2014)
19. Boiler Law (2015)
20. Labor Dispute Settlement Law (28 March 2012 replacing 1929 version)
21. The Social Security Law (2012)
22. The Employment and Skill Development (2013)
23. The Worker's Compensation Act, 1923
24. The Payment of Wages Act, 1936
25. The Leave and Holidays Act, (1951, partially revised in 2014)
26. The Minimum Wage Law (2013)
27. Public Health Law (1972)
28. Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)
29. Occupational Safety and Health Law (2019)
30. The Law on Standardization
31. The Motor Vehicles Law (2015)
32. The Conservation of Water Resources and River Law (2006)
33. The Commercial Tax Law (1990) Amended 2014

1.2.3.1 Environmental and Social Standards & Guidelines

LINE TECH INDUSTRIAL COMPANY LIMITED will follow all disciplines regarding maintenance of environment according to the Environmental Laws and Rules.

Line Tech Industrial Company Limited will follow National Environmental Quality Emission Guidelines; General Guidelines, in Air Emission (Gas & Particulate Matter), Produce Waste Water, Noise, and Offensive Smell.

Line Tech Industrial Company Limited will conduct (a) Environmental Impact Control (b) Environmental Monitoring Plan and (c) Environmental Management in the Facilities in accordance with Environmental Code.

Line Tech Industrial Company Limited, undertakes to pay all relevant taxes. LTICL will arrange social welfare of its employees.

Line Tech Industrial Company Limited, undertakes that 2% of net profit earned from our business will be contributed towards Corporate Social Responsibilities (CSR).

1.2.3.2 Health Standards & Guidelines

LINE TECH INDUSTRIAL COMPANY LIMITED will open medical clinic for health care of employees. FDA approved drinking water (which comply with WHO Drinking Water Standards Guideline) will be arranged for drinking purpose.

1.2.4 Institutional Framework

Line Tech Industrial Company Limited arranged to draw up the environmental management plan report of the consumer electronics manufacturing project using the Contract, Manufacturing, and Processing (CMP) system of Line Tech Industrial Company Limited in accordance with the EIA procedure.

LTICL appointed third party verified licensed personnels according to EIA Procedure no.18, to draw up the environmental management plan report

LTICL undertakes to implement successfully in EMP for the proposed project with EMP Management Team and EMP Implementation Team. Those teams will be organized and necessary trainings will be provided. Detailed is described in Section 2.

1.3 Project Description and Alternative Selection

The Project was reviewed in order to gain a full understanding of the project and to compile information on project activities. The Project description and alternatives is described in Section 3.

Project description and alternative selection is prepared in this as below: -

- Project background,
- Project location, overview map and site layout maps
- Description of the project size, installations, technology, infrastructure, production process, use of materials and resources and generation of waste, emissions and disturbances, all together with overview maps and site layout maps and design drawings for each Project phase
- Description of the selected Alternative(s) by Project phase
- Comparison and Selection of the preferred Alternatives

1.3.1 Project Background

LTICL is aimed to continue operation by total invested capital equivalent in Myanmar Kyat of USD 1.351 Million (inclusive amount of foreign capital USD 0.330 Million brought in within 1 year from the date of issuance of BRIC permit) for “Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis”.

The proposal of proposed Project has been submitted by identified Director of LTICL for approval from Bago Region Investment Committee (BRIC) in 29th November 2019. The proposed project has been approved with Permit Order No. BGO-031/2019 by Bago Region Investment Committee (BRIC) in 20th December 2019.

Proposed Project development has been commenced after MIC approval and it is currently commenced for pre-operation phase in Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis by wholly foreign owned Line Tech Industrial Company Limited, according to approved BRIC permit.

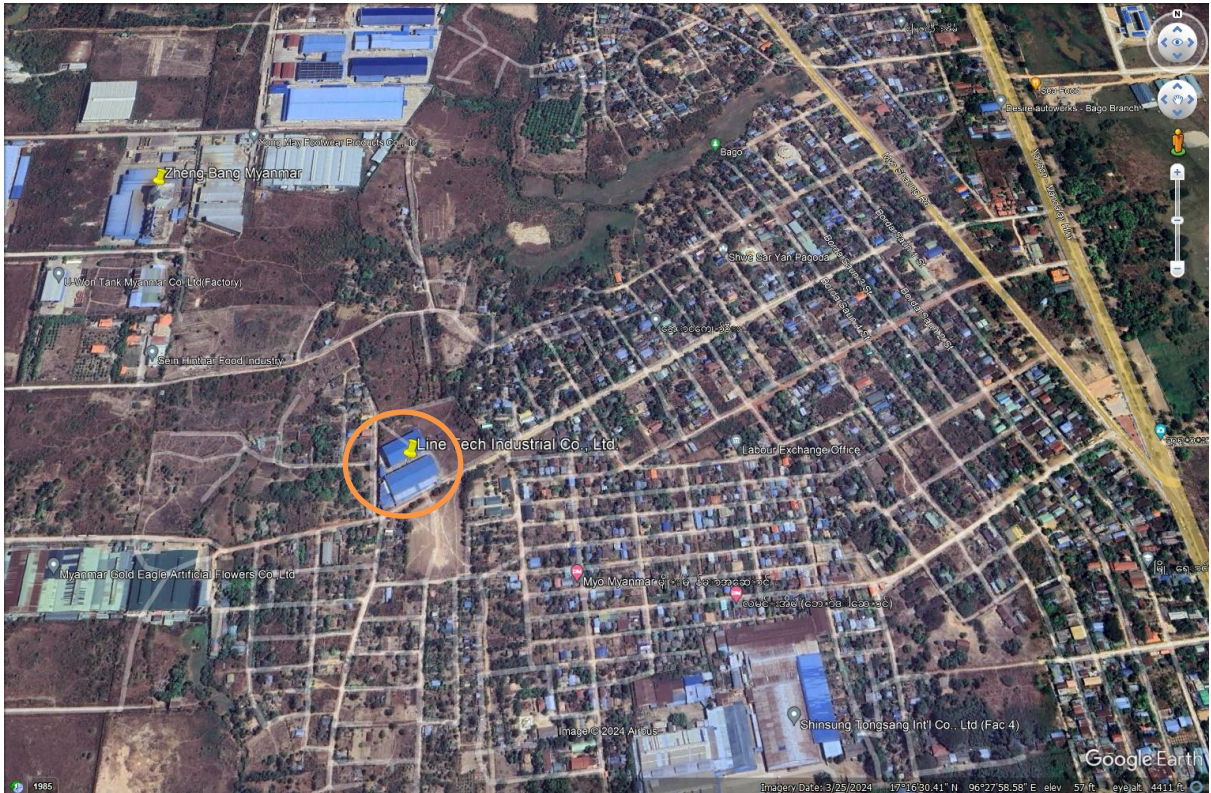
The proposed project is commenced since 2019 in the rented location; Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region, Myanmar, which mentioned in the BRIC permit under land & building facility rent/purchase

agreement with landlord. After completion of development phase as scheduled, it's processing operation phase in 2022.

1.3.2 Project Location, Overview Map and Site Layout Maps

Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Project location is at area 1.4 Acre ($17^{\circ}16'23.84''\text{N}$, $96^{\circ}27'33.80''\text{E}$) (above sea level 90 ft) in Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region, Myanmar.

Project Overview Map and Layout Maps are shown in below Figures.



Overview Map of Proposed Project Location ($17^{\circ}16'23.84''\text{N}$, $96^{\circ}27'33.80''\text{E}$)



Layout Map of Proposed Project (17°16'23.84"N, 96°27'33.80"E)

1.3.3 Project Land Use and Master Plan

Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region has been established as granted Townland. The land area is cleared by landlord.

The proposed project area excludes from forest reserve area and other local community land usage. Therefore, the proposed project area is cleared from land acquisition issue. The preferred granted industrial land is selected as alternative location for the proposed project; Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

The selected land area will be used continuously as immediate location for the proposed project; for the Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis. Master plan of the existing and proposed project land use in the concerning area covers 1.4 Acre has been described in below Table.

Table: Proposed Project Land Use in the Selected Land Area (1.4 Acre) (2019)

Land Use	Area in Acre	% To Total Area
Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Building	1.4	100.00
Total	1.4	100.00



Figure - Cleared Reserved Land Area Map in March 2019

Proposed granted Townland area (1.4) locating at Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region is selected for the proposed project; Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis. Existing land use of proposed Project Area covers 1.4 Acre as per Table 4.2.

Table 1.3.3.2: Existing Land Use in the Proposed Project Area (2024)

Land Use	Area in Acre	% To Total Area
Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Buildings	1.4	100.00
Total	1.4	100.00



Figure - Existing & Proposed Land Use in the selected Land Area Map in March 2024

proposed project master layout plan and the existing land use layout in the concerning area covers 1.4 Acre (51700 square feet) has been described in below Table and Figures.

Existing & Proposed Project Land Use in the Selected Land Area (1.4 Acre)

Land Use	Area in Acre	% To Total Area
Factory Building (2 nos.)	1.4	100.00
Generator House (1 no.)		
Staff House (1 no.)		
Guard House (1 no.)		
Car Parking (1 no.)		
Total	1.4	100.00

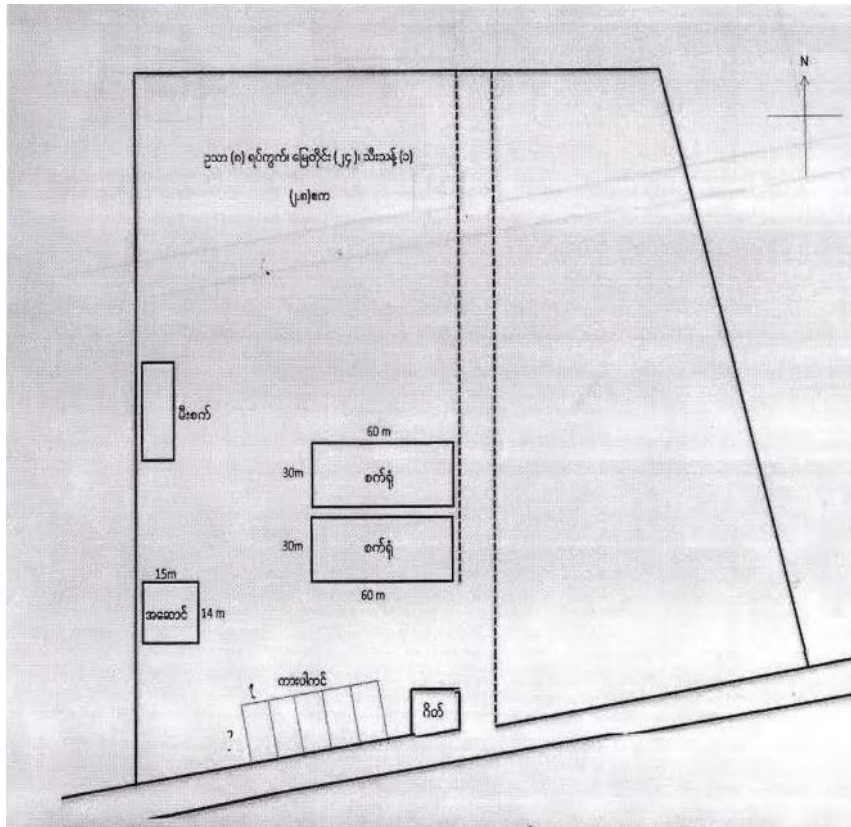


Figure - Proposed Project Land Use Master Layout Plan in the selected Land Area



Figure - Project Existing Land Use Layout Map in the preferred Land Area in March 2024

1.3.4 Project implementation schedule

Project implementation schedule for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis is present in below table.

Table: Project implementation schedule

Phase	Commence	Duration	Note
Development	2019 Aug	1 Year	100% completed
Operation	2020 Jan	20 Year	On going
Abandonment	TBA	3 – 6 Month	N/A

1.3.5 Project Description

1.3.5.1 Buildings & Facility Installation

Project development has been commenced in 2019 at preferred land area and completed as scheduled within One year. Now project is in operation stage and manufacturing is ongoing. Selected design and master layout plan prepared to suit with proposed project has been done in pre-construction stage. Prepared project building/ facility are listed as below:

Table: Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Building/Facility Descriptions

Sr. No.	Facility/Building Description
1.	Factory Building (2 nos.) + Staff House (1 no.) + Generator Room (1 no.) + Guard House + Car Parking + Groundwater Storage Tank + Concrete Fence + Concrete Floor
2.	Electrical & Auto Machinery Facility Installation
3.	Power Supply System for Normal Operation – 500 KVA 3PH 50, Transformer (1 no.) from ESB, MOEE Alternative Power Supply System (Back Up only)– 200 KVA Generator (2 nos.)
4.	Domestic use Water Supply System Water Source – Groundwater (1 nos.) Operation – Compressor Pump for 2-inch tube well and pump for storage tank Storage - Utility Water / Fire Water Tank System Drinking Water – Current Practice and plan to use approved drinking water products only
5.	Storm & rainwater drainage direct connect to public drain
6.	Wastewater treatment system (filtering) before dispose to public drain
7.	Sewage Treatment System (Septic Tank)
8.	General Solid Waste Management System (Collect at Waste Storage Area and Send to BTDC); Temporary waste storage area (1 no.)
9.	24 Hour Security (Guard) Service

10.	Fire Emergency & Disaster Management System

The LTICL proposed project development phase for construction and facility installation is completed as per schedule. Proposed Project Operation facility is installed with imported & locally purchased Machinery & Equipment in the building as per Process Master Plan (below Table) and (Annexure – 8) (Ref: BRIC proposal)

Table: List of Machinery & Equipment (to be imported from China)

Sr. No.	Machinery and Equipment Description	Unit	Quantity
1.	Horizontal Injection Machine (13 Nos.)	Lot	1
2.	Stand Injection Machine (15 Nos.)	Lot	1
3.	Blister Machine (5 Nos.)	Lot	1
4.	High Frequency Machine (3 Nos.)	Lot	1
5.	Pad Printing Machine (4 Nos.)	Lot	1
6.	Ultrasonic Machine (4 Nos.)	Lot	1
7.	Auto Wire Cutting Machine (2 Nos.)	Lot	1
8.	Wire Stripping Machine (10 Nos.)	Lot	1
9.	Mini Punching Machine (10 Nos.)	Lot	1
10	Terminal Crimping Machine (6 Nos.)	Lot	1
11	Cooling Water Machine (2 Nos.)	Lot	1
12	Mold Temperature Machine (3 Nos.)	Lot	1
13	Screw Air Compressor (2 Nos.)	Lot	1
14	Air Storage Tank (2 Nos.)	Lot	1
15	Freeze Dryer Machine (2 Nos.)	Lot	1
16	Mold Storage Rack MSG (3 Nos.)	Lot	1
17	Assembly Line 10-15 Meter (5 Nos.)	Lot	1
18	Power Generator 350 KW (1 Nos.)	Lot	1
19	Baking Line 10-15 Meter (1 No.)	Lot	1
20	Mixing Machine BLG (3 Nos.)	Lot	1
21	Plastic Crush machine FSG (2 Nos.)	Lot	1
22	Cooling Tower LCT (1 No.)	Lot	1
23	Hydraulic Elevator WL-A (1 No.)	Lot	1
24	Engine Forklift HELI (1 No.)	Lot	1
25	Forklift HC-A (6 Nos.)	Lot	1
26	Water Cabinet (2 nos.)	Lot	1

Table: List of Construction Materials (to be imported)

Sr. No.	Description	Unit	Quantity
1.	Structural Steel (Various Size) (400 Ton)	Lot	1

Table: List of Office Equipment (to be purchased locally)

Sr. No.	Description	Unit	Quantity
1.	Computer (10 Set)	Lot	1
2.	Fan USD17 (100 Set)	Lot	1
3.	Table and Chair (10 Set)	Lot	1
4.	Air Conductor (15 Set)	Lot	1
5.	Water Cooler (10 Set)	Lot	1

1.3.5.2 Annual Raw Material required for Project Operation

Annual Raw Material will be required for Project Operation are listed as below: -

Table 1.3.5.2.7: List of Raw Material (to be imported from Taiwan, China, Malaysia, India)

Sr. No.	Description	Unit	Quantity				
			Y-1	Y-2	Y-3	Y-4	Y-5
1.	Brass Copper Roll	Kg	200,000	200,000	200,000	200,000	200,000
2.	Iron Roll	Kg	200,000	200,000	200,000	200,000	200,000
3.	Phosphor Copper Roll	Kg	200,000	200,000	200,000	200,000	200,000
4.	Stainless Steel Roll	Kg	200,000	200,000	200,000	200,000	200,000
5.	ABS	Kg	200,000	200,000	200,000	200,000	200,000
6.	ABS + PE	Kg	200,000	200,000	200,000	200,000	200,000
7.	AS	Kg	200,000	200,000	200,000	200,000	200,000
8.	HDPE	Kg	200,000	200,000	200,000	200,000	200,000
9.	HIPS	Kg	200,000	200,000	200,000	200,000	200,000
10.	PC	Kg	200,000	200,000	200,000	200,000	200,000
11.	PE	Kg	200,000	200,000	200,000	200,000	200,000
12.	PET	Kg	200,000	200,000	200,000	200,000	200,000
13.	PMMA	Kg	200,000	200,000	200,000	200,000	200,000
14.	POM	Kg	200,000	200,000	200,000	200,000	200,000
15.	PP	Kg	200,000	200,000	200,000	200,000	200,000
16.	PS	Kg	200,000	200,000	200,000	200,000	200,000
17.	PVC	Kg	200,000	200,000	200,000	200,000	200,000
18.	TPE	Kg	200,000	200,000	200,000	200,000	200,000
19.	Modular Plug	Kg	200,000	200,000	200,000	200,000	200,000

Sr. No.	Description	Unit	Quantity				
			Y-1	Y-2	Y-3	Y-4	Y-5
20.	Material Terminal	Kg	200,000	200,000	200,000	200,000	200,000
21.	Computer Plug	Kg	200,000	200,000	200,000	200,000	200,000

1.3.5.3 Manufacturing Process

- **Manufacturing Process of Computer Cable Products (by Auto Machinery)**
 - Wire Stripping
 - Copper Wire Stripping
 - Soldering
 - Over molding
 - Testing
 - Packing

- **Manufacturing Process of Telephone Cable Products (by Auto Machinery)**
 - Stripping
 - Wire Installation to the Plug
 - Crimping
 - Testing
 - Packing

The Manufacturing Process Flow Charts are shown in Annexure - 6

1.3.5.4 Annual Manufacturing Plan

LTICL aims to operate Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis and expect to earn in Oversea Market targeting for international clients (Ref: BRIC proposal)

Annual Manufacturing Plan for the Products of Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis are shown below Table. (Ref: BRIC Proposal)

Table 1.3.5.4.7: List of Products Plan (to be exported to USA, Japan, China, Europe Countries, Malaysia, Singapore, Korea, and Asia Countries)

Sr. No.	Description	Unit	Quantity (in Thousand Unit)				
			Y-1	Y-2	Y-3	Y-4	Y-5
1.	Computer Cable	Pcs.	600	600	600	600	600
2.	Telephone Cable	Pcs	300	300	300	300	300
3.	LED Tealight	Pcs	12,000	13,200	13,200	13,800	13,800
4.	LED Waterproof Tealight	Pcs	1,200	1,320	1,320	1,380	1,380
5.	LED Tealight SATA	Pcs	1,200	1,320	1,320	1,380	1,380
6.	LED Tealight Butterfly	Pcs	1,200	1,320	1,320	1,380	1,380
7.	LED Tealight Transparent	Pcs	1,200	1,320	1,320	1,380	1,380
8.	LED Solar Tealight	Pcs	600	660	660	690	690
9.	LED Votive Tealight Candle	Pcs	1,200	1,320	1,320	1,380	1,380
10.	LED Plastic Skull Candle Light	Pcs	1,200	1,320	1,320	1,380	1,380
11.	LED Pillar Candle Light	Pcs	1,200	1,320	1,320	1,380	1,380
12.	LED Taper Candle	Pcs	1,200	1,320	1,320	1,380	1,380
13.	LED Halloween Taper Candle	Pcs	1,200	1,320	1,320	1,380	1,380
14.	LED ER Taper Candle	Pcs	1,200	1,320	1,320	1,380	1,380
15.	LED Crystal Lamp	Pcs	1,200	1,320	1,320	1,380	1,380
16.	LED Lantern Light	Pcs	1,200	1,320	1,320	1,380	1,380
17.	LED Lantern Light	Pcs	1,200	1,320	1,320	1,380	1,380
18.	BO String Light	Pcs	1,200	1,320	1,320	1,380	1,380
19.	Lamp String Datab Cable	Pcs	240	264	264	276	276
20.	LED Necklace Light	Pcs.	1,200	1,320	1,320	1,380	1,380
21.	Light Up Bulb Earrings	Pcs	1,200	1,320	1,320	1,380	1,380
22.	LED Necklace Light	Pcs	240	264	264	276	276
23.	Luminous Mask	Pcs	1,200	1,320	1,320	1,380	1,380
24.	Light Helmet	Pcs	1,200	1,320	1,320	1,380	1,380
25.	Emergency Charger	Pcs	600	660	660	690	690
26.	Car Charger	Pcs	600	660	660	690	690
27.	Plastic Mobile Phone Cover	Pcs	600	660	660	690	690
28.	Mobile Phone Stand	Pcs	1,200	1,320	1,320	1,380	1,380
29.	Mobile Phone Stand	Pcs	1,200	1,320	1,320	1,380	1,380
30.	Headset	Pcs	1,200	1,320	1,320	1,380	1,380
31.	Printing Headphones	Pcs	1,200	1,320	1,320	1,380	1,380
32.	Audio	Pcs	600	660	660	690	690
33.	Light Sound	Pcs	240	264	264	276	276
34.	Watch Sheath	Pcs	600	660	660	690	690

Sr. No.	Description	Unit	Quantity (in Thousand Unit)				
			Y-1	Y-2	Y-3	Y-4	Y-5
35.	Solid Watch Band	Pcs	600	660	660	690	690
36.	Watch Stents	Pcs	600	660	660	690	690
37.	Audio Splitter	Pcs	240	264	264	276	276
38.	Audio Line	Pcs	1,200	1,320	1,320	1,380	1,380
39.	Luminescent Data Cable	Pcs.	600	660	660	690	690
40.	Induction Lamp	Pcs	600	660	660	690	690
41.	Flashlight	Pcs	120	132	132	138	138
42.	Flashlight	Pcs	120	132	132	138	138
43.	Book Reading lamp	Pcs	240	264	264	276	276
44.	Night Light	Pcs	600	660	660	690	690
45.	USB Light	Pcs	600	660	660	690	690
46.	Holding a Fan	Pcs	240	264	264	276	276
47.	Mini Desk Fan	Pcs	240	264	264	276	276
48.	Holding a Fan	Pcs	240	264	264	276	276
49.	Solar Flower Electronic Gift	Pcs	240	264	264	276	276
50.	Mobile Phone Gift	Pcs	240	264	264	276	276
51.	Cliop Sound Girt	Pcs	600	660	660	690	690

1.3.5.5 Annual Chemical/Fuel Consumption

Annual chemical/fuel consumption from project operation and maintenance activity estimated majority which may come out from transportation activity by using vehicles as most consumption while other activities (i.e., fuel consumption for backup generator operation) may be considered low consumption as follows and actual consumption will be updated in future routing (six monthly) Environmental Report to ECD.

Annual Chemical/Fuel Consumption (Unit – Gallon)

Sr. No.	Chemical/Fuel Description	Annual Consumption
1.	Octane (30x3x12)	1,080
2.	Premium Diesel (30x3x12)	1,080
3.	Engine Oil/Gear Oil/Grease/Lubricant (5x2)	10

1.3.5.6 Annual Power Consumption

Annual power consumption from project operation is mainly from power supply source from National Power Line via installed private transformers under permission of relevant Bago Region Authority and consumed electricity from national power grid will be counted monthly as unit for billing purpose. LTICL has installed Diesel Generator as backup power supply system to be used for public area lighting purpose when main power supply system does not work temporarily. LTICL commits to pay timely for monthly electricity bill settlement and annual power consumption is estimated as follows and actual consumption will be updated in future routing (six monthly) Environmental Report to ECD.

Annual Power Consumption (Unit – Meter Unit)

Sr. No.	Power Source Description	Consumption (Unit)
1	Transformer (1 no.) Main Source for Daily Normal Operation Power Supply from National Grid Line	70,180 2
2	Diesel Generator Set (2 nos.) Alternative Source for Backup Essential Operation Power Supply from LTICL	100

1.3.5.7 Annual Water Consumption

Annual water consumption from project operation is operation use and utility use. Water resources are ground water via 2 inches tube-well. Ground water will be pumped out to storage tank, treat, and then utilize for daily domestic usage and operation utility water usage whilst reserving for emergency usage for firefighting. Annual water consumption is estimated as follow and actual consumption will be updated in future routing (six monthly) Environmental Report to ECD.

Annual Water Consumption (Unit – Gallon)

Sr. No.	Water Usage Description	Annual Consumption

1.	Domestic Usage from worker (180x365x2)	131,400
2.	Operation Utility Water Usage (500x365)	182,500
3.	Firewater Usage Reserved for Firefighting (Training & Emergency)	45,000

1.3.5.8 Investment Budget for Proposed Project

LTICL invests for proposed operation using total capital USD 1.351 Million equivalent to Myanmar Kyat (to be brought in within 1 year from the date of issuance of BRIC endorsement) for proposed project, Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

1.3.5.9 Man Power Consumption

Total human resources (180 nos.); local personnel manpower (174 nos.) and foreign manpower; (6 nos.), will be appointed in proposed project to be operated by LTICL. Detailed list is described in section – 3 and Annexure .7.

1.3.5.10 Summary of Project Description for Each Project Phase

Summary of Project description for each Project phase is present in here.

A. Development Phase

Category	Description
Project Size & Location	Land area (1.4) Acre (17°16'23.84"N, 96°27'33.80"E) in Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township
Investment	US\$1.351Million
Infrastructure	2 Factory Building, 1 Staff House, 1 Generator Room, 1 Security Gate, 1 Roofed Car Park, Brick wall fence, drain, EPC Power Supply, Power Generator, Self-water supply from tubewell groundwater, Water Treatment System
Installations	Imported Machinery & Equipment from China
Technology	Steel Structure Building Constructing
Development Processes	Land Clearance, Building Construction, Facility Installation, Commissioning
Use of Material and Resources	Construction Material to be imported Structural Steel (Various Size), Office Equipment (Local)

Category	Description
Generation of Waste	General Construction Waste, discharge water
Emissions	Smoke, Particulate Matter and Dust
Disturbances	Noise

Land rented in 2019. Construction commenced in December 2019. Purchase of key machinery commenced in May 2020.

B. Operation Phase

Category	Description
Technology	Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis (by Auto Machinery)
Man Power	180 – 250 Nos.
CMP Operation Process	Receiving consumer electronics contract from overseas. Manufacturing of Consumer Electronic according to Contract Export Final Products to USA, Japan, Europe Countries, Malaysia, Singapore, Korea and all Asia Countries according to Contract
Manufacturing Processes	Manufacturing Processes of Computer Cable (by auto machinery) Wire stripping – Copper wire stripping – Soldering – Over-molding – Testing – Packing
	Manufacturing Processes of Telephone Cable (by auto machinery) Stripping – Wire installation to the plug – Crimping – Testing – Packing
Use of Material and Resources	Raw Materials imported from Taiwan, China, Malaysia, India. Brass copper roll, Iron roll, Phosphor copper roll, Stainless steel roll, ABS, ABS+PE, AS, HDPE, HIPS, PC, PE, PET, PMMA, POM, PP, PS, PVC, TPE, Modular Plug, Material terminal, Computer Plug
Maintenance	Maintenance for project's assets (buildings & facility; Machinery & Equipment)
Generation of Waste	General office Waste, domestic waste, canteen waste, discharge water
Emissions	Smoke and Particulate Matter
Disturbances	Noise from Generator

Operation phase commenced in December 2020.

C. Abandonment Phase

Category	Description
Abandonment Processes	Land ownership clearance, Building and Facility deinstallation, Decommissioning, Compensation to project staff & workers, close-out reporting, fade-out of project CSR activities

Category	Description
Generation of Waste	General Waste, discharge water
Emissions	Smoke, Particulate Matter and Dust
Disturbances	Noise

1.3.6 Description of the Selected Alternatives

In this study, LTICL has considerably practiced comparison and selection of alternative based on location, marketing demand, affordable products, efficiency of Equipment & Machinery, investment and return benefit ratio before commencing the proposed project and decision make internally.

The comprehensive study has been made by the investor for the proposed project since preparation stage to invest capital for the proposed project which covering site location, investment type, building design, quantity and capacity of marketable products, etc., and then proposal has been prepared with final outcome from studied.

There is currently no alternative site for the proposed project and the proposed site is intended to serve as an immediate location to be used for project. There is no alternative for building design, construction & installation procedure, project period and the proposed project aim to proceed as per officially permitted project proposal with exception in alternative site.

Any alternative/changes will be presented if there is any project activity requires changes throughout project period which deviate from officially approved original project proposal.

1.3.7 Comparison and Selection of Alternative

Category	Description	
	Project Description	Alternative
Location	Yes	-
Design	Yes	-
Construction	Yes	-
Operation & Maintenance	Yes	-
Abandonment	Yes	-

Technical Description of the Selected Alternative

LTICL has prepared project proposal to operate Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Project to suit with Myanmar laws and submitted to MIC for permit approval. There is no alternative site now (2024) to compare with selected site mentioned in proposal intended to serve as an immediate location to be used for project in 2024. There is no alternative data for comparison in building design, construction & installation procedure, project operation, & maintenance and the proposed project aim to proceed in the preferred location with BRIC permission.

1.4 Description of the Surrounding Environment

Description of the surrounding environment section is present in this section.

1.4.1 Setting Study Limit

The project of Line Tech Industrial Company Limited is situated in Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region. The existing environment of the project area within selected industrial land area and its surrounding environment within 100-meter radius from proposed project area is focus to explore baseline environmental data to refer in environmental study for the proposed operation activity.

1.4.2 Methodology and objectives

Base line data collection for the EMP of proposed project to be operated by Line Tech Industrial Co., Ltd. has been made by field-based study and referring on Data of General Administration Department Bago Township. Field based study covering for existing environmental & socio-economic quality monitoring, sample collection to be analyzed at certified laboratory and public consultation with relevant local authority, representative and head of local community, presenting about proposed project by the proponent and getting advice, feedback, answering the question, etc., from officials and representative

of local community. Collected data are screened for accuracy, analyzed for record, and compiled in this section.

1.4.3 Existing Environmental Quality

Field survey has been done on 9 May 2024 to monitor values of existing environmental quality; Soil quality, Water quality, Air Quality, Noise Level, etc., Main purpose of Existing environmental quality values monitoring is recording existing environmental quality values to include in impact assessment to surrounding environment from project activity. It's observed that the values (Air, Water, and Noise) are within general guidelines

1.4.3.1 Soil

Soil sample were taken and tested at certified lab, Department of Agriculture (Land Use). Soil Interpretation Results are recorded as existing base line soil quality.

Table 1.4.3.1.1: Soil Interpretation Results for LTICL Soil Sample

Sr. No.	Test	Interpretation Result
1	pH	Extremely Acid
2	EC	Very Low
3	Texture	Sandy Loam
4	Organic Matter	Very Low
5	Total N	Very Low
6	Exchangeable Cations (Ca^{2+})	Low
7	Exchangeable Cations (Mg^{2+})	Medium
8	Exchangeable Cation (K^+)	Very Low
9	P	Low
10	K_2O	Low

1.4.3.2 Water

Water samples (Ground water and project discharge water sample were taken and tested at certified lab. Results are compared with relevant guidelines and recorded as existing water quality.

Table.1.4.3.2.1:World Health Organization Drinking Water guideline value (Geneva-1993)

Location – One point at ground water Tank (13° 5'2.78"N 98°16'44.70"E)

Test	Unit	Maximum Permissible Limit	Ground Water Value
Color	TCU	15	Nil
Turbidity	NTU	5	4
Total Dissolved Solvent	mg/l	1000	30
Chloride	mg/l	250	3
Lead	mg/l	0.01	-
Total Hardness (as CaCO ₃)	mg/l	500	20
Iron	mg/l	0.3	0.29
pH	S.U.	6.5 – 8.5	7.3
Sulphate (as SO ₄)	mg/l	500	Nil
Zinc	mg/l	5	-
Calcium	mg/l	200	-
Magnesium	mg/l	150	-
Nitrate	mg/l	50	-
Arsenic (As)	mg/l	≤0.01	Nil
Fluoride	mg/l	1.5	0.3
Total Solids	mg/l	1500	42

It is observed that Tested results of ground water quality is within WHO maximum permissible limits.

Table.1.4.3.2.2: Wastewater, Storm water Runoff, Effluent and Sanitary Discharge (General)

Location – One point near wastewater treatment system effluent (13° 5'2.78"N 98°16'44.70"E)

Parameter	Unit	Guideline Value	Wastewater Value
5-day BOD	mg/l	50	8
COD	mg/l	250	32
pH	S.U.	6-9	7.4
Color	TCU		5
Turbidity	NTU		13
Conductivity	μS/cm		88
Total Solids	mg/l		54
Phosphate	mg/l		4.6
Salinity	ppt		0.1
Temperature (°C)	(°C)		25
Nitrate (N.NO ₃)	mg/l		4.0

Parameter	Unit	Guideline Value	Wastewater Value
Dissolved Oxygen (DO)	mg/l		6.8

It is observed that Tested results of project discharged water quality is within NEQEG General Guidelines Wastewater Value.

1.4.3.3 Air

Air quality (air emission) was monitored on site and results are compared with NEQEG General guidelines Air Emissions value and recorded as existing air quality.

Table.3: Air Emissions (General)

Date - May 2024				
Location – One point Near Generator Room and Factory Building within Project Area (13° 7'35.20"N 98°16'46.50"E)				
Sixth Monthly (Twice a Year) (Dec 2023 – May 2024)		EQEG	Monitoring Results	Note (Status of Compliance with EQEG)
PM _{2.5} (µg/m ³)	1-year	10	-	Pass (24- hour measuring result))
	24-hour	25	21.46	
PM ₁₀ (µg/m ³)	1-year	20	-	Pass (24- hour measuring result))
	24 – hour	50	32.81	
SO ₂ (ppb)	24 – hour	20	0	Pass (both 24- hour and 10 min measuring result))
	10- minute	500	-	
NO ₂ (ppb)	1-year	40	-	Pass (1- hour measuring result))
	1- hour	200	38.48	
Ozone	8-hour daily maximum	100	0	Pass
CO (ppb)	-	-	1.67	-
RH (%)	-	-	51.67	-
T (°C)	-	-	33.38	-

1.4.3.4 Noise

Air quality (noise emission) was monitored on site and results are compared with NEQEG General guideline value and recorded as existing air quality.

Table 1.4.3.4.1:Noise Emission Level

Noise Level Measurement

Date	Time	Average Result of Project Area	EQEG Standard		Weight	Day/Night
			Daytime	Nighttime		
9.5.2024	09:05:30- 10:05:00	52	55	45	A	Day
	10:05:30-11:05:00	52	55	45	A	Day
	11:05:30-12:05:00	52	55	45	A	Day
	12:05:00-13:05:00	54	55	45	A	Day
	13:05:30-14:05:00	56	55	45	A	Day
	14:05:30-15:05:00	55	55	45	A	Day
	15:05:30-16:05:00	55	55	45	A	Day
	16:05:30-17:05:00	35	55	45	A	Day
	17:05:30-18:05:00	33	55	45	A	Day
	18:05:30-19:05:00	35	55	45	A	Day
	19:05:30-20:05:00	32	55	45	A	Day
	20:05:30-21:05:00	31	55	45	A	Day
	21:05:30-22:05:00	30	55	45	A	Day
	22:05:30-23:05:00	32	55	45	A	Night
	23:05:30-00:05:00	30	55	45	A	Night
10.5.2024	00:05:00-01:05:00	35	55	45	A	Night
	01:05:30-02:05:00	35	55	45	A	Night
	02:05:30-03:05:00	37	55	45	A	Night
	03:05:30-04:05:00	35	55	45	A	Night
	04:05:30-05:05:00	33	55	45	A	Night
	05:05:30-06:05:00	39	55	45	A	Night
	06:05:30-07:05:00	39	55	45	A	Night
	07:05:30-08:05:00	37	55	45	A	Day
	08:05:30-09:05:00	35	55	45	A	Day

1.4.4 Physical Components

Bago Township, located in the Bago Region of Myanmar, lies on the eastern foothills of the Bago Yoma mountains. The area is naturally heavily forested, with the northern part of the township featuring higher hills and thicker forests. Additionally, the average elevation in Bago Township is approximately 31 feet, with a minimum elevation of -1 meter and a maximum elevation of 10 meters. The township area is 1121.66 square miles

and length is 21 miles from east to west and 43 miles from south to north. Elevation of the township is average above 100-feet.

The Bago River flows through the eastern part of the township and flows into the Yangon River. The Township has tropical climate, mean highest temperature is 39.8°C and lowest temperature is 16.40°C. Annual Rainfall and temperature is as below: -

No.	Year	Rainfall		Temperature	
		Rainy Day	Total Rainfall (inches)	Summer	Winter
				Highest (°C)	Lowest(°C)
1	2019-2020	124	107.68	42.2	14.0
2	2020-2021	115	95.16	34.1	22.3
3	2021-2022	129	100.91	32.1	21.2
4	2022-2023	37	23.94	41.2	10.2

(Refer: Bago Township profile 2023, General Administrative Department Information)

Bago Township is locating low land flat area and facing flood caused by monsoon storm rain during rainy season. Recorded natural disaster from 1st January 2022 to 31st December 2023 for Bago Township are; Storm (5) times, Tsunami (0) times, earthquake (0) times, flood (0) times, Fire (8) times, Lightening (1) times.

1.4.5 Biological Components

According to the data of GAD, the natural vegetation in the township includes Kyun, Pyin Ka Toe, Pi Tauk, Thityar, Ingyin, Thinkan, Ma Kyi, Tamar, Kokko, Malzali, Kinpunchin, and Htinshuu, etc. As for wildlife, the area is home to elephants, leopards, hogs, bears, buffaloes, wild cats, and various species of monkeys, etc.

As reserved forest and wildlife sanctuary; There is eight reserved forests in Bago township with total area 381042 acres. Moeyungyi Wetland Wildlife Sanctuary is a designated wildlife reserve in Myanmar. Located in the Bago Region, it covers an area of 100 square kilometers (40 square miles) and was established in 1986 as a Ramsar Site. The sanctuary lies between north latitudes 17°30' and 17°36' and east longitudes 96°33' and 96°39'. It is situated approximately 21 miles from the project area.

There are no protected habitats live in proposed project site. The proposed project site is not located within an area of protected habitats of endangered species designed by the country's law and international treaties and conventions.

1.4.6 Socio-Economic Components

Bago Township is one of economically centered townships in Bago Region. Plantation, Farming and services business is main business of local people whilst two industrial zones are steadily developing. Major product of Bago Township is rice and transport for sale in Yangon Region.

1.4.6.1 Occupation and Income

Net local income from production, services and trading of Bago Township is (957,246.1) Million Kyat and net income for a person is (3,352,758) Kyat in 2022-2023. The township's unemployment rate stands at 4.95%. The table below illustrates the number of employed individuals by occupation in 2022-2023.

Employment

Sr. No.	Category	Quantity
1	Government	4602
2	Services	3651
3	Agricultural	21604
4	Farming	4485
5	Trading	27684
6	Industrial	27279
7	Fishing	4568
8	Random	39429
9	Others	34888

1.4.6.2 Infrastructure, Living conditions, public services, and natural resources

Bago Township serves as a vital transportation hub, situated 91 kilometers northeast of Yangon. The railway station in Bago Township connects to various other parts of the country. Additionally, the Ayeyarwady River plays a crucial role as a transport artery, and

major railway lines crisscross the region. Notably, the upcoming “Hanthawady International Airport” near Bago aims to become Myanmar’s primary international gateway.

The main source of water supply for the daily usage Domestic water is from Bago Township Development Committee water supply system and its own tube well. Drinking water supply is from registered drinking water supply private sector such as Alpine, PMG, Designer, etc.,

Power supply from National grid line is covering electricity for the Bago Region including Industrial Zones. Electricity serves as the primary energy source for cooking and lighting, although some households also use LPG, kerosene, and other alternatives.

Waste Management: Garbage discarded from residences is collected by the Bago Township Municipality and appropriately disposed of in designated areas. Bago Township Development Committee is monitoring on the quality of water discharged from the industries and households, managing to comply good practices as per standing instruction accordingly not to impact environment via rivers and creeks from developing. Sewage disposal from the propose project will be its own with proper treatment system through septic tanks and soak pits within its location.

Education of Bago Township is well organized for local people as listed below

Category	Description	Primary
Higher Education	University	1
Basic Education	High School	22
	High School (Branch)	12
	Middle School	13
	Middle School (Branch)	64
	Primary (Beyond)	114
	Primary	5
	Pre-School	15
	Monastic School	28

Bago General Hospital (500 bedded), four station hospital (16 bedded) and five private specialist clinics are situated in Bago Township.

Company (12 nos.), Distributor (9 nos.), Trading/Merchant (15 nos.), Market (14 nos.), Supermarket (1 no.), and Banks (20 nos.) are running at Bago Township as 2022-2023 record.

Services under Bago Township Development Committee include Market, Water Supply, Cleansing, and Road & Bridge.

Bago township has publicly assetsible football field (1 no.), Cinema (1 no.), and Park (2 nos.) for Sports & Recreation.

1.4.6.3 Population

The population of Bago Township is about 462,743 presents with major eight races (Kachin, Kaya, Karen, Chin, Bamar, Mon, Rakhine, Shan), Bamar is most with (421,444). Total household in the Bago Township is 116,187 and male/female ratio is 1:1.1.

1.4.6.4 Health Information

Based on data from the General Administration Department for Bago Township, there were 9,612 births and 648 deaths in 2023. The most common health issue in the township is Diarrhea.

1.4.6.5 Religion and Cultural Components

The population of Bago Township by religion is as follows:

Table: Population of Bago Township by religion

No.	Buddhism	Christianity	Hinduism	Islamism	Other Religions	Total
1	431,473	18,313	7,142	3,590	2,225	462,743

(Ref: General Administration Department Bago Township Data 2022-2023)

There are many famous Buddhist Pagoda, Shrine, and Stupa (16 nos. out of 85 nos.), many famous Monasteries (14 nos. out of 620 nos.), Nunnery (106 nos.), and 20 Temples are recorded. Other religious buildings apart from Buddhism are Christian Church (20 nos.), Islam Mosque (14 nos.), Hindu Temple (29 nos.), and Chinese Temple (8 nos.).

Kanbawzathadi Golden Palace locating at Nantawyar Ward is recorded as one and only historical building and place within the Bago Township as protected cultural heritage area and/or protected archaeological area and/or area of historical significance. There is no record of visual component established in Bago Township.

1.5 Impact and Risk Assessment and Mitigation Measures

Impact and risk assessment and mitigation measures are present detailed in Section – 5.

1.5.1 Impact and Risk Assessment Methodology

1.5.1.1 Impact Definition

An environmental impact is defined as a change in the environment or a violation of an environmental standard that results from an action or event that interact with it. The impact can be either positive or negative and actual or potential, and has been described in terms of the following:

- F – Frequency of impact occurrence;
- L – Likelihood of the impact occurring;
- M – Magnitude of size of the impact in the relation to set standards;
- E – Extent or spatial extent of the impact;
- D – Duration of the impact;
- S – Significance - overall importance of the impact

1.5.1.2 Identification and Assessment of Environmental Impacts

Once an environmental impact is identified, the significance must be assessed before an attempt can be made to mitigate negative environmental impacts, the ultimate aim of the EIA process. The steps involved in the assessment involve the following steps:

- Step 1: Identify activity;
- Step 2: Identify environmental aspect;
- Step 3: Identify environmental impact;
- Step 4: Assess significance of environmental impact

The significance of each impact is the product of Frequency x Magnitude x Likelihood of the Impact Occurring) ranking is divided into Six orders of SIGNIFICANCE, CRITICAL, HIGH, MEDIUM, LOW and NEGLIGIBLE.

1.5.2 Impact and Risk Identification, Assessment and Mitigation

1.5.2.1 Identification and Assessment of Potential Environmental Impacts

Identification of potential impacts and identified impacts which may outcome from the proposed project are listed as below: -

Activity	Potential Impact	Identified Impact
Development		
Location	Social, Biological, Historical, Cultural,	No
Design	Physical, Historical, Cultural,	No
Construction	Physical, Environmental, Climate Change, Social, Health	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation
Installation	Physical, Environmental, Climate Change, Social, Health	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation
Operation		
Operation	Physical, Environmental, Climate Change, Social, Health	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation
Maintenance	Physical, Environmental, Climate Change, Social, Health	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation
Abandonment		
Deinstallation	Physical, Residual Environmental, Climate Change, Health	Residual Environmental
Closeout of project	Social	Social

Ambient Environmental Quality Component

The measured ambient environmental quality result during project operation period shows within NEQEG General Guidelines Value means no impact from the project normal operation activity (detailed in Section 4).

Socio-Economic Component

There is no record of complaints received from the local community as well as local authority regarding proposed project activities (detailed in Section 8). LTICL keen to collaborate with local authority to support sustainable development of local community by performing CSR activity as and when necessity (detailed in Section 9).

1.5.2.2 The Design, Layout, Functioning, Management and Implementation of Appropriate Impact and Risk Mitigation Measures

Activity	Risk	Impact	Mitigation Measure
Development			
Location	Land Acquisition Force Relocation Conflict	Social, Biological	Cleared from land acquisition issue. Locate outside protected areas. Land rented under agreement.
Design	View	Historical, Cultural	Designed not to cover the historical and cultural view
Construction	Waste and wastewater, generator operation	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Managed not to impact environmental and social by LTICL during development phase
Installation	Waste and wastewater, generator operation	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Managed not to impact environmental and social by LTICL during development phase
Operation			
Operation	Waste Conflict,	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Environmental Management Plan implementation
Maintenance	Noise, Dust, Pollution, Waste	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise	Environmental Management Plan implementation

	Conflict	& Air Pollution from generator operation	
Abandonment			
Deinstallation & Closeout of project	Noise, Dust, Pollution, Waste, Conflict,	Residual Environmental, Social	LTICL to manage no impact to environmental and social

1.5.2.3 Characterization and Assessment of Any Residual Impacts and Risks and Comparison with Applicable Regulations, Standards and Guidelines

For the process of Characterization and assessment of any residual impacts and risks and comparison with applicable regulations, standards and guidelines, identification and comparison with applicable guidelines include and detail are present in section 5.2.3.

1.5.2.4 Comprehensive Monitoring Plan

Comprehensive environmental monitoring plan covers ambient environmental quality monitoring to ensure no impacts and risks from proposed project operation to the surrounding environment. More detailed are described in Section 5.

Activity	Risk	Impact	Monitoring
Development			
Location	Land Acquisition Force Relocation Conflict	Social, Biological	Location Change
Design	View	Historical, Cultural	Design Change
Construction	Waste and wastewater, generator operation	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Waste Management System Soil Condition Wastewater Quality Noise Level Air Quality
Installation	Waste and wastewater,	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise	Waste Management System Soil Condition Wastewater Quality

	generator operation	& Air Pollution from generator operation	Noise Level Air Quality
Operation			
Operation	Waste Conflict,	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Procedure Change EMP implementation Waste Management System Soil Condition Wastewater Quality Noise Level Air Quality
Maintenance	Noise, Dust, Pollution, Waste Conflict	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	EMP implementation Waste Management System Soil Condition Wastewater Quality Noise Level Air Quality
Abandonment			
Deinstallation & Closeout of project	Noise, Dust, Pollution, Waste, Conflict	Residual environmental, Social	EMP implementation Waste Management System Soil Condition Wastewater Quality Noise Level Air Quality

1.5.3 Relevant maps, aerial photos, satellite images in proper scale clearly indicating the location of sources of Adverse Impacts, the spatial and temporal distribution of such impacts and with reference to the Description of the Surrounding Environment, the components that are likely to be impacted and the nature of impacts.

It is observed that the proposed project activity and the components with suitable mitigation measures that are unlikely to be impacted to the surrounding environment.

1.5.4 Summary of Environmental Risk & Impacts Assessment

The potential impacts arising from the proposed project can be categorized as having Low residual risk levels. No residual risks were assessed as Medium, High or Severe.

Attachment 1 presents a summary of the assessed level of residual (post-mitigation) environmental risk associated with the project activity. Table 6.3 also summarizes the key mitigation strategies and measures that LTICL and the contractor(s) will implement throughout the project period (please note that development phase is already completed and currently is operation phase operating) to ensure that impacts are either eliminated or reduced to levels that are environmentally sound and acceptable.

1.6 Cumulative Impact Assessment

The location of proposed project preferred land area is in settled residential area and not relating with Bago Industrial Zone, and no other industries or factories operating within study area. There is settled town plan already in the study area and no changes to be made according to Bago Township General Administration Department. Hence it is considered that further study is not necessary at this time for characterization and assessment of any residual impacts and risks.

1.7 Environmental Management Plan EMP

Environmental Management Plan and the persons, organizations and budgets needed for implementation of the EMP. for the proposed project is presented in Section 7.

Purpose and Scope

Purpose to fulfill the requirement of project proponent to submit EMP of proposed project in getting ECCD for the proposed project by preparation EMP of the proposed project.

Aim to prepare suitable environmental management plan to minimize impacts as low as reasonably practicable level (ALARP) by means of prevention, mitigation, and monitoring measures based on the identified impacts (of both positive and negative) affected to the environment, human use values, quality of life and health, etc., which may come out from the project activities throughout proposed project operation.

Scope to conduct environmental assessment study working process includes project proponent, required laws, policy, legal and institutional framework, project proposal and alternatives, surrounding environment background information and

existing environmental quality data, Impact & Risk Assessment & Mitigation Measures, Cumulative Impact assessment, Environmental Management Plan, Public Consultation and information Disclosure, etc., for the preparation of EMP of proposed project.

Scope to prepare EMP for the proposed project preparing process includes Identifying all planned activities and potential unplanned events, establishing an environmental baseline of the project area, Identifying and assessing potentially significant impacts based on existing environmental description, Identifying and recommending mitigation measures to minimize potential impacts, recommending a monitoring plan that can track changes in the environment issues and to ensure compliance with Myanmar legislation, etc., for the submitting of EMP of proposed project.

1.7.1 Project Description by Project Phases (Pre-Construction, Construction, Operation, Decommissioning, Closure and Post Closure)

The project proponent and the environmental experts are Identified in Section 1. Project description in reasonable detail with description of the project size, installations, technology, infrastructure, production processes, use of materials and resources, generation of waste, emissions and disturbances together with overview maps and site layout maps for each Project phase and, where relevant, project alternatives for each Project phase are present in Section 3. The surrounding environmental and social conditions of the Project including maps of all relevant physical, biological, social, socioeconomic and cultural features are described in Section 4.

1.7.2 Policy and Objective of EMP

Applicable laws, decrees, regulations, standards, guidelines and corporate policies related to environmental and social matters of the Project together with the relevant government agencies involved and their roles and responsibilities vis-à-vis the Project are described in Section 2.

A Project-specific Environmental Management Plan (EMP) has been prepared for the proposed project. The EMP aims to provide an environmental management framework by outlining the compliance requirements, mitigation measures and monitoring programs to be undertaken throughout the project period.

Roles and Responsibilities

The key roles and responsibilities for all personnel (LTICL and contractors) who will be involved in the EMP implementation for the Proposed Project are described below and in the Section 2 & 7.

- Managing Director – Responsible for Managing EMP Implementation of LTICL
- Director –Responsible for effective implementation of the EMP across all operating units
- Manager – Management Champion for EMP Implementation
- Environmental Coordinator – EMP Champion, to be the key person to coordinate with all levels involved in implementation of EMP

The Persons and Organizations for EMP Implementation

LTICL EMP Management Team and LTICL EMP Implementation Team has been organized to perform EMP of proposed project which to comply strictly with required laws. The following personnel have been identified as key person as Project EMP Management Team to the implementation of EMP:

- Managing Director –EMP Management Team Leader
- Director – EMP Management Team Member
- Manager – EMP Management Team Member

The following personnel have been identified as key person as Project EMP Implementation Team to the implementation of EMP:

- Manager –EMP Implementation Team Leader
- Environmental Coordinator – EMP Implementation Team Coordinator
- LTICL Staff – EMP Implementation Team Member

Planning and Implementation

Based on the findings of environmental assessment for EMP for the proposed project, environmental management measures designed are described to mitigate potential environmental impacts of the proposed project and associated to levels that are considered to be and acceptable. EMP Management Team plans to manage, on Implementation of approved EMP implementing by EMP Implementation Team to suit with required laws. EMP Implementation Team has to perform task on implementation of approved EMP.

Monitoring, Record Keeping and Reporting

The implementation of EMP will be monitored, recorded, and reported to relevant authority; ECD, which includes detailed project activity data, environmental quality monitoring data, CSR performance data, any changes/deviates from original proposed project proposal, etc., but not limited to for the proposed project associated activities in the project area.

Auditing and Review

Environmental Management Plan performance auditing will be undertaken to confirm that all significant environmental aspects of the project activity are covered by the EMP. It will also confirm that the standards to achieve environmental performance are being implemented and identify opportunities for continuous improvement and potential non-conformances.

1.7.3 Summary of Impacts and Mitigation Measures

Identification and assessment of potential Environmental Impacts including assessment and description of Adverse Impacts and Residual Impacts with presentation of the spatial and temporal characteristics of the impacts using maps, images, aerial photos and satellite images are presented in Section 5.

Identification and assessment of Cumulative Impact relating with proposed project are presented in Section 5.

Activity	Risk	Impact	Mitigation Measure
Development			
Location	Land Acquisition Force Relocation Conflict	Social, Biological	Cleared from land acquisition issue. Locate outside protected areas. Land rented under agreement.
Design	View	Historical, Cultural	Designed not to cover the historical and cultural view
Construction	Waste and wastewater, generator operation	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Managed not to impact environmental and social by LTICL during development phase
Installation	Waste and wastewater, generator operation	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Managed not to impact environmental and social by LTICL during development phase
Operation			
Operation	Waste Conflict,	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Environmental Management Plan implementation
Maintenance	Noise, Dust, Pollution, Waste Conflict	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Environmental Management Plan implementation
Abandonment			
Deinstallation & Closeout of Project	Noise, Dust, Pollution, Waste, Conflict	Residual Environmental, Social	LTICL to manage no impact to environmental and social

The identified impacts which may arising from the proposed project activities can be categorized as having Low residual risk levels. No residual risks were assessed as Medium, High or Severe. Attachment 1 presents a summary of the assessed level of residual (post-mitigation) environmental risk associated with the project activity. Above Table also summarizes the key mitigation strategies and measures that LTICL and the contractor(s) to implement throughout the project period (please note that development phase is already completed and currently is operation phase operating) to ensure that impacts are either eliminated or reduced to levels that are environmentally sound and acceptable.

1.7.4 Overall Budget for Implementation of the EMP

Overall budget (estimated 3000 USD) will approve yearly to implement EMP for LTICL Proposed Project without fail which complying with existing laws & regulation of Myanmar. In addition, the separated budget will be used by the operator, if necessary, apart from approved overall budget to implement EMP.

1.7.5 Management and Monitoring Sub-Plans by Project Phase (Pre-Construction, Construction, Operation, Decommissioning, Closure and Post Closure)

Management and monitoring sub-plans by project phase are present in Section 7.

1.7.6 Content of Each Sub-Plan

Content of each sub-plan is compiled to include its objective, legal requirement, overview maps and site layout maps, implementation schedule, management action, monitoring plan, and projected budget and responsibility. Detailed are present in Section 7.

1.7.6.1 Objectives

The principal objective of the EMP is to develop an effective management tool that will ensure that the diverse range of management and monitoring tasks and activities originally defined in the Environmental Management Plan can be systematically and efficiently performed.

1.7.6.2 Legal Requirements

Legal requirements are described in Section 2 & 7.

1.7.6.3 Implementation Schedule

Overall EMP Implementation for the proposed project and frequency for reporting is tentatively scheduled as below and sub-plans are described in Section 7.

Project Phase	Period	EMP Implementation Schedule	Frequency
Development	1 Year	1 Year	6 Monthly
Operation	20 Year	20 Year	6 monthly
Abandonment	3 – 6 Month	6 Month	6 monthly

1.7.6.4 Management Action

EMP Management Team to ensure in complying with required laws in EMP implementation by setting EMP implementation team, approving EMP Budget yearly, and conduct and assist in monitoring, recording, reporting, & auditing on EMP implementation. Detailed are described in Section 7.

1.7.6.5 Monitoring Plans

Monitoring plan is set to record and report to the relevant authority; ECD, for the proposed project which covers managing & practicing in EMP Implementation, environmental quality monitoring (soil, discharge water, noise level, air emission) with reference to NEQEG General Guidelines. Detailed are described in Section 7.

1.7.6.6 Projected Budgets and Responsibilities

LTICL (MD & Director) has taken fully responsibility in Managing EMP Implementation by approving EMP budget in yearly basis. The separated and dedicated budget will be reserved by the operator to implement effective environmental management plan EMP. LTICL Factory Manager has taken fully responsibility in Implementing EMP successfully. Yearly based, estimated Projected Budgets and Responsibilities for the implementation of EMP for proposed project operation activities is present in section 7.6.6.

1.8 Public Consultation and Information Disclosure

Public consultation and Information Disclosure is described detailed in Section – 8.

1.8.1 Methodology and Approach

Consultations with stakeholders on environmental issues have been taken up as an integral part of the process. These consultations provided inputs to the various sector specialists in identification of the felt needs of the communities, and the relevant stakeholders.

1.8.2 Summary of Public Consultation Activities Undertaken

Consultation has been done separately with focus stakeholder during developing phase by LTICL to get permission for the proposed project with officials of Union Government Departments, Officials of Regional Government Departments, Officials of Township Government Departments, local community LTICL staff, and local community from adjacent/around the project factory area.

1.8.3 Results of Public Consultation

The outputs of the consultation sessions are documented in Stakeholder Consultations.

BRIC has approved the proposed project to invest and operate by following rules & regulations, and procedures & standing instructions. MONREC provided details on the regulatory submission and approvals process.

There is no objection from the authorities of host country in general as well as no complaint received from staff regarding the proposed project operation while study team consulting during assessment period. Providing necessary skill factory training as of voluntary nomination system for the eligible staff to develop local staff is built in as ongoing process throughout project period.

Any possible issues which may arise from public consultation, together with the findings of the baseline data gathering, have been considered when compiling the EMP.

1.8.4 Further Ongoing Consultations

Public consultation with all stakeholder is scheduled to conduct in 2024 to share update information about proposed project and related environmental & social condition to get comment, advise, request, etc., from the public consultation.

1.8.5 Disclosure

As per Myanmar regulations, this prepared EMP Report will be made available for public comment. The full report will be made available to the public in English and a non-technical summary will be made available in Myanmar.

Prepared EMP Report of LTICL Project (summary) will be displayed at LTICL factory while full report can be found at Head Office. LTICL and ECD will include EMP info in their website respectively.

1.9 CSR Activity

The Proposed Project CSR program has been outlined in sponsoring educational sector, healthcare of local community staff by arranging clinic, providing necessary equipment & training, creating necessary recreation which relating to project throughout operational period without fail to promote CSR.

1.9.1 Budget for CSR Plan

LTICL has undertaken to spend 2% of annual net profit in CSR program. LTICL plans to cooperate with local community employee as part of CSR programs to be supported by LTICL is as below:

- Providing 25% in Education Sector for the education of local community employees from workshop
- Providing 25% in health care service sector by opening medical clinic for the healthcare of local community employee
- 50% for creating necessary recreations of factory employee's peace and harmony

1.10 Findings and Recommendations

The proposed Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis project will support improvements in flow of local currency & foreign currency from its Consumer Electronics Manufacturing Sector. Detailed benefits accrued due to the present project components are described in Section 10.

The significance of the environmental impacts shall be due to the normal operation of the LTICL relate to the activities and emissions associated with areas of rich environmental sensitivity. It is to be noted that the resultant potential impacts from these proposals can be offset through provision of proven mitigation measures by environmental management plan.

It is recommended that the mitigation measures included in the Environmental Management Plan (EMP) report be followed to avoid the identified impacts and risks which may occurred from the project operation activities.

1.11 Conclusion

It may be emphasized that the present EMP report, which identifies potential impacts and suggests appropriate mitigation measures, is sufficient enough to safeguard the environment. There are no significant adverse impacts, which are irreversible or may lead to considerable loss/destruction of environment, envisaged. Proven mitigation measures exist to minimize/mitigate the same. Mitigation measures for abandonment phase will prevent residual impacts from project activity. There will be no cumulative impact relating with project and other industrial activity and future town plan.

As such, an Environmental study has been conducted, and no significant adverse impact from normal operation activity has been envisaged, as mentioned above. To further mitigate as preventive measures any environmental impacts, an Environmental Management Plan (EMP) is included.

1. အစီရင်ခံစာ အကျဉ်းချုပ်

လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ်ကုမ္ပဏီလီမိတက်၏ CONTRACT, MANUFACTURING, AND PROCESSING (CMP) စနစ်ဖြင့် လူသုံးကုန် လျှပ်စစ်ပစ္စည်းများ ထုတ်လုပ်ခြင်းလုပ်ငန်း စီမံကိန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အစီရင်ခံစာအကျဉ်းချုပ်ကို တင်ပြအပ်ပါသည်။

1.1 နိဒါန်း

စီမံကိန်းဆောင်ရွက်သူနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာကျွမ်းကျင်သူ လိုင်စင်ရ ပညာရှင်များ / တတိယအဖွဲ့အစည်းကို ဤအခန်းတွင် တင်ပြထားပါသည်။

1.1.1 စီမံကိန်းဆောင်ရွက်သူ

အောက်ပါကုမ္ပဏီမှာ ထိုင်ဝမ်ရှိမူလကုမ္ပဏီဖြစ်ပြီး အဆိုပြုစီမံကိန်းအား နိုင်ငံခြား ရင်းနှီးမြှုပ်နှံမှု ဥပဒေနှင့်အညီ ဆောင်ရွက်လုပ်ကိုင်နေသည့် “လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ် ကုမ္ပဏီ လီမိတက်” အမည်ရှိ ကုမ္ပဏီ၏ မိခင်အဖွဲ့အစည်းဖြစ်သည်။

Company	Address
Line Tech Industrial Company Limited (Represented by) Mr. Wang, Chia-Long PP No. 302604671 (Taiwan) Mr. Jim Wang	No.82-7/2 Floor, Guang Xia Street, San Chong Quarter, Xing Bei State, Taiwan Email: jim@linetech.com.tw Tel: 886-2-2999-0290 Web Site: www.linetech.com.tw

အောက်ဖော်ပြပါ ကုမ္ပဏီသည် အဆိုပြုစီမံကိန်းလုပ်ငန်း၏ အဓိကအဖွဲ့အစည်း ဖြစ်ပါသည် -

ကုမ္ပဏီ	လိပ်စာ
လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ် ကုမ္ပဏီလီမိတက် မှတ်ပုံတင်အမှတ် ၁၁၅၄၀၃၉၃၁	မြေကွက်အမှတ်-သီးသန့်(၁)၊ အကွက်အမှတ်-မြေတိုင်း(၂၄)၊ ဥဿာ(စ)ရပ်ကွက်၊ ပဲခူးမြို့နယ်၊ ပဲခူးတိုင်းဒေသကြီး အီးမေးလ်၊ jim@linetech.com.tw Tel: 09427495002 Web Site: www.linetech.com.tw
လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ် ကုမ္ပဏီလီမိတက် (ဆက်သွယ်ရန် ပုဂ္ဂိုလ်) ဦးစန်းဝင်းထွန်း	Tel: 09 421127669

LTICL ကို မြန်မာကုမ္ပဏီအက်ဥပဒေအရ ၂၀၁၉ ခုနှစ် ဇန်နဝါရီလ ၂၁ ရက် နေ့တွင် ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီစီမံခန့်ခွဲရေး ညွှန်ကြားရေးဌာနတွင် အဓိကဆောင်ရွက်လုပ်ကိုင်မှု - ၂၆ - ကွန်ပျူတာ၊ လျှပ်စစ်နှင့် မျက်မှန်ပစ္စည်း ထုတ်လုပ်ရေးလုပ်ငန်းအတွက် မှတ်ပုံတင်ထားပြီး မှတ်ပုံတင်အမှတ် (၁၂၀၄၂၂၄၆) နှင့် ရှယ်ယာများဖြင့်စုဖွဲ့ထားသော နိုင်ငံခြားသားပိုင် ဖက်စပ်ကုမ္ပဏီတစ်ခု အဖြစ် ဆောင်ရွက်လုပ်ကိုင်လျက်ရှိပါသည်။

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DIRECTORATE OF INVESTMENT AND COMPANY ADMINISTRATION
 Myanmar Companies Online (MyCO)

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COMPANY PROFILE
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Company Name (English)	Company Name (Myanmar)	Registration Number	Registration Date
LINE TECH INDUSTRIAL COMPANY LIMITED		121842246	22/08/2019
Company Type	Status	Foreign Company	Small Company
Private Company Limited by Shares	Registered	Yes	No
Annual Return Due Date 22/09/2024			
Principal Activity 26 - Manufacture of computer, electronic and optical products			

စီမံကိန်းဆောင်ရွက်ရန်အတွက် အောက်ဖော်ပြပါ အဖွဲ့အစည်း/ပုဂ္ဂိုလ်သည် ရင်းနှီးမြှုပ်နှံမှု ပြုထားသူများ ဖြစ်ကြပါသည်-

Investor/Promoter	% of Investment Company	Country of Origin
Line Tech Industrial Co., Ltd. (Rep by) Mr. Wang, Chia-Long	100%	Taiwan

လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ်ကုမ္ပဏီလီမိတက်သည် ရင်းနှီးမြှုပ်နှံသူများ ထိန်းကြောင်းမှု ဖြင့် Contract, Manufacturing, and Processing (CMP) စနစ်ဖြင့် လူသုံးကုန် လျှပ်စစ်ပစ္စည်းများ ထုတ်လုပ်ခြင်းလုပ်ငန်း စီမံကိန်း၏ အုပ်ချုပ်ရေးအဖွဲ့အဖြစ် ဆောင်ရွက်သွားမည်ဖြစ်သည်။ ရင်းနှီးမြှုပ်နှံသူများသည် ခန့်အပ်ထားသည့် ဒါရိုက်တာနှင့် ဝန်ထမ်းများမှတစ်ဆင့် စီမံကိန်းအားလည်ပတ်မည်ဖြစ်သည်။ ဒါရိုက်တာအဖွဲ့အား အောက်ပါအတိုင်း ဖော်ပြအပ်ပါသည်-

နိုင်ငံခြားသားပိုင်ကုမ္ပဏီ (လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ်ကုမ္ပဏီလီမိတက်)

အမည်	နိုင်ငံကူးလက်မှတ်	ရာထူး
Mr. Wang, Chia-Long	Taiwan (PP No. 302604671)	အုပ်ချုပ်မှုဒါရိုက်တာ
Mr. Lin, Ta-Yuan	Taiwan (PP No. 31462051)	ဒါရိုက်တာ

စီမံကိန်း ရည်ရွယ်ချက်နှင့်နယ်ပယ်

Contract, manufacturing, and processing (CMP) စနစ်ဖြင့် လူသုံးကုန် လျှပ်စစ်ပစ္စည်းများ ထုတ်လုပ်ခြင်းလုပ်ငန်း စီမံကိန်းအား နိုင်ငံခြားငွေရင်းနှီးမြှုပ်နှံဆောင်ရွက်သွားပါမည်။ မြန်မာနိုင်ငံ၏ ဥပဒေ၊ နည်းဥပဒေများ၊ လုပ်ထုံးလုပ်နည်းများနှင့်အညီ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာနမှ စီမံကိန်းဆောင်ရွက်သူအား ထုတ်ပေးမည့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဆိုင်ရာလိုက်နာဆောင်ရွက်မှု သက်သေခံလက်မှတ်ရရှိနိုင်ရန် ရည်ရွယ်ထားပါသည်။ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဆိုင်ရာလိုက်နာ ဆောင်ရွက်မှုသက်သေခံလက်မှတ် ရရှိနိုင်ရန် လုပ်ငန်းလိုင်စင် ရယူထားသော တတိယအဖွဲ့အစည်း/ ပုဂ္ဂိုလ်များ၏ အကူအညီဖြင့် အဆိုပြုစီမံကိန်းအတွက် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ ပြုစု၍ စီမံကိန်းဆောင်ရွက်သူက တင်ပြသွားမည် ဖြစ်ပါသည်။

1.1.2 တတိယအဖွဲ့အစည်း ပတ်ဝန်းကျင်ဆိုင်ရာကျွမ်းကျင်သူများ၏ အကြောင်းအရာ ဖော်ပြချက်
လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ် ကုမ္ပဏီလီမိတက်သည် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံး လုပ်နည်းများနှင့်အညီ ပတ်ဝန်းကျင်ဆိုင်ရာလေ့လာ၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ ပြုစုရေးဆွဲခြင်း အတွက် လိုင်စင်ရ တတိယအဖွဲ့အစည်း/ပုဂ္ဂိုလ်များအား မေလ ၂၀၂၄ခုနှစ်တွင် ငှားရမ်းဆောင်ရွက်ခဲ့ပါသည်။

အောက်ဖော်ပြပါ လိုင်စင်ရ ပုဂ္ဂိုလ်များက ပတ်ဝန်းကျင်ဆိုင်ရာလေ့လာ၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် အစီရင်ခံစာ ပြုစုရေးဆွဲခြင်း ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။ လေ့လာဆောင်ရွက်မည့် ပုဂ္ဂိုလ်များအကြောင်းနှင့် ပတ်သက်၍ အခန်း-၁.၂ တွင် ပြည့်စုံစွာဖော်ပြထားပါသည်။

ပတ်ဝန်းကျင်လေ့လာမှုအဖွဲ့နှင့် အစီအစဉ်ဇယား

ကြာချိန် - မေလ ၂၀၂၁ (၂၀၂၂ မေလ ၄ ရက်နေ့တွင် စတင်လေ့လာမှု စတင်ခဲ့)
လေ့လာရေးအဖွဲ့ -
အဖွဲ့ဝင်များ -

ပတ်ဝန်းကျင်ဆိုင်ရာလေ့လာမည့် အကြံပေးအဖွဲ့ဝင် ပုဂ္ဂိုလ်များ		
စဉ်	အကြံပေး ပုဂ္ဂိုလ်	ကျွမ်းကျင်နယ်ပယ် နှင့် လုပ်ငန်းအတွေ့အကြုံ
1	ဦးခင်မောင်မျိုး	Risk Assessment and Hazard Management

	M.Sc. (Chemistry) M.S. (Environmental Science)	EIA-C 034/2023 (1.12.2023) Environmental Working experience since 1998
2	ဒေါက်တာဇင်မင်း Ph.D. (Environmental Science)	Ecology and Biodiversity EIA-C 033/2023 (1.12.2023) Environmental Working experience since 2000
3	ဒေါက်တာခွန်လှိုင်မြင့် Ph.D. (Geology)	Geological Assessment EIA-C 032/2023 (1.12.2023) Environmental Working experience since 2000
4	ဒေါ်နုနု M.Sc. (Analytical Chemistry)	Water Pollution Prevention, Control, Monitoring and Prediction of Impacts EIA-C 035/2023 (1.12.2023) Environmental Working experience since 2013
5	ဒေါက်တာတင်နိုင် M.B.B.S., DTM&H	Health (Impact Studies and Analysis) EIA-AC 039/2023 (1.12.2023) Health working experience since 1993, Occupational & Industrial Health Working experience since 2013

ပတ်ဝန်းကျင်ဆိုင်ရာလေ့လာမည့် အထောက်အကူပြုအဖွဲ့ဝင် ပုဂ္ဂိုလ်များ		
No	အထောက်အကူပြု ပုဂ္ဂိုလ်	ပါဝင်သည့် ကဏ္ဍ နှင့် လုပ်ငန်းအတွေ့အကြုံ
1	ဒေါက်တာဇေယျ PhD. (Chemistry)	Waste management; Occupational health; Substance use management. Environmental Working experience since 1983
2	ဒေါက်တာတင်အေးမြင့် PhD (Engineering Chemistry)	Occupational health; Substance use management. Environmental Working experience since 1983
3	ဦးဟိန်းသိုက် B.Sc. (Botany), Dip. In GIS	Information gathering; Field Studies; Environmental quality survey; public meeting and discussion; Report writing. Environmental Working experience since 2013
4	ဦးစောထီးမူး B. E. (Textile), Dip. In GIS	Field studies; Survey of current environmental quality; Public Consultation and discussion; Report writing.

		Environmental Working experience since 2018
5	ဦးဇော်ဗလ BBA (MIT), B.A. (English), Dip. In IT (NMC)	Field studies; Survey of environmental quality; Public Consultation. Environmental Working experience since 2023
6	ဦးဟိန်းထက် MB.A., M.Sc. (Sustainability Management), B.A. (IR)	Field studies; Public Consultation, Report writing. Environmental Working experience since 2018
7	ဦးခွန်စိုင်းဝမ် B.E. (Mechanical)	Report writing Environmental Report Writing since 2014
8	ဒေါက်တာပိုပိုမောင် Ph.D. (Environmental Law), LLM (Cooperativism in Legal, Economic and Social Affairs), LLM (Civil Law), LLB	Report writing Environmental Report Writing since 2014
9	ဦးအောင်ချမ်းမင်း B.A. (Geography)	Field studies; Survey of environmental quality;

1.2 စီမံကိန်း၏ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့် လူမှုစီးပွားရေးဆိုင်ရာ မူဝါဒ၊ ကတိကဝတ်၊ ဥပဒေဆိုင်ရာ လိုအပ်ချက်နှင့် ဖွဲ့စည်းမှုဆိုင်ရာ စီစဉ်ဆောင်ရွက်မှုများ

စီမံကိန်း၏ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့် လူမှုစီးပွားရေးဆိုင်ရာ မူဝါဒ၊ ကတိကဝတ်၊ ဥပဒေဆိုင်ရာ လိုအပ်ချက်နှင့် ဖွဲ့စည်းမှုဆိုင်ရာ စီစဉ်ဆောင်ရွက်မှုများကို တင်ပြထားပါသည်။

1.2.1 ဥပဒေဆိုင်ရာ လိုအပ်ချက်

နည်းဥပဒေ ၅၂၊ ၅၃၊ ၅၅ အရ စီမံကိန်း အသစ် စတင်ခြင်း နှင့် လက်ရှိ စီမံကိန်းကို ချဲ့ထွင်ခြင်း စသည့် စီမံကိန်း အားလုံးသည် ပတ်ဝန်းကျင်အရည်အသွေးကို ထိခိုက်မှု ဖြစ်စေနိုင်စွမ်းရှိသောကြောင့် လုပ်ဆောင်မည့် အဖွဲ့အစည်းတိုင်း ကြိုတင်ခွင့်ပြုချက် ရယူရန် လိုအပ်သည်။ နည်းဥပဒေ ၆၂ အရ ပတ်ဝန်းကျင်အရည်အသွေးကို ထိခိုက်မှု ဖြစ်စေနိုင်စွမ်းရှိနေသော စီမံကိန်းတိုင်း ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းလုပ်ထုံးလုပ်နည်း နှင့်အညီ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာ ဆောင်ရွက်မှု သက်သေခံလက်မှတ် ရရှိနိုင်ရန် ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း (သို့မဟုတ်)

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (သို့မဟုတ်) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ကို လုပ်ဆောင်ရန် လိုအပ်သည်။

လိုင်းတက်(ခ်)အင်ဒပ်စရိယယ်ကုမ္ပဏီလီမိတက်၏ CONTRACT, MANUFACTURING, AND PROCESSING (CMP) စနစ်ဖြင့် လူသုံးကုန် လျှပ်စစ်ပစ္စည်းများ ထုတ်လုပ်ခြင်းလုပ်ငန်း စီမံကိန်းသည် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်းပါ အချက်အလက်များနှင့်အညီ ပဲခူးတိုင်းဒေသကြီး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှတစ်ဆင့် သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဝန်ကြီးဌာန၊ နေပြည်တော် သို့ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် အစီရင်ခံစာ ရေးဆွဲ တင်ပြရန်နှင့် ယင်းအစီရင်ခံစာနှင့် ပတ်သက်၍ ညွှန်ကြားချက်များအတိုင်း လိုက်နာဆောင်ရွက်ရန် ပဲခူးတိုင်းဒေသကြီး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ သဘောထားမှတ်ချက်ကို ပဲခူးတိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီအား စာအမှတ်၊ ပဲခူး/အီးအိုင်အေ(၂၂၈၈/၂၀၁၉) ရက်စွဲ၊ ၂၀၁၉ခုနှစ်၊ ဒီဇင်ဘာလ (၄)ရက်၊ ဖြင့် အစီရင်ခံ တင်ပြထားပါသည်။

နည်းဥပဒေ ၇၇ အရ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို အပိုဒ် ၆၃ (ဇ) ပါ သတ်မှတ်သည့် ပုံစံဖြင့် အောက်ပါ အချက်အလက်များမှန်ကန်ကြောင်း အတည်ပြုဝန်ခံချက်နှင့် အတူ စာရွက်စာတမ်း အပြည့်အစုံဖြင့်လည်းကောင်း၊ ဒီဂျီတယ်ပုံစံဖြင့်လည်းကောင်း ဦးစီးဌာနသို့ တင်ပြရမည်။

- (က)ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်သည် တိကျခိုင်မာကြောင်းနှင့် ပြည့်စုံကြောင်း၊
- (ခ)ဤလုပ်ထုံးလုပ်နည်းအပါအဝင် သက်ဆိုင်ရာဥပဒေများကို တိကျစွာလိုက်နာ၍ ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်ကို ရေးဆွဲထားကြောင်း၊
- (ဂ)စီမံကိန်းသည် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ပါကတိကဝတ်၊ ပတ်ဝန်းကျင်ထိခိုက်မှုလျှော့ချ ရေးလုပ်ငန်းများနှင့် အစီအစဉ်များကို အပြည့်အဝအစဉ်အမြဲလိုက်နာဆောင်ရွက်မည် ဖြစ်ကြောင်း။

1.2.2 မှန်ကန်ကြောင်းအတည်ပြုတာဝန်ခံကတိပြုစာ

နည်းဥပဒေ အပိုဒ် ၇၇ အရ အောက်ပါ အချက်အလက်များ မှန်ကန်ကြောင်း စီမံကိန်းဆောင်ရွက်သူက အတည်ပြုဝန်ခံစာ ရေးသားတင်ပြထားပါသည်။

- (က) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်သည် တိကျခိုင်မာ၍ ပြည့်စုံပါသည်
- (ခ) ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းလုပ်ထုံးလုပ်နည်း အပါအဝင် သက်ဆိုင်ရာဥပဒေများအား တိကျစွာလိုက်နာ၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ရေးဆွဲထားပါသည်။

(ဂ) စီမံကိန်းသည် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ပါ ကတိကဝတ်၊ ပတ်ဝန်းကျင်ထိခိုက်မှု လျှော့ချရေးလုပ်ငန်းများနှင့် အစီအစဉ်များကို အပြည့်အဝအစဉ်အမြဲ လိုက်နာဆောင်ရွက် ပါမည်။

စီမံကိန်းဆောင်ရွက်သူ အနေဖြင့် ဤအစီရင်ခံစာပါ အချက်အလက်များအား ပြည့်စုံကြောင်း နှင့် စီမံကိန်းဆောင်ရွက်သည့်ကာလတစ်လျှောက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား အကောင် အထည်ဖော် ဆောင်ရွက်သွားမည်ဖြစ်ကြောင်း ကတိပြုပါသည်။

ဤအစီရင်ခံစာရေးသားသည့် တတိယအဖွဲ့အစည်း/အကြံပေးသူများအနေဖြင့် စုစည်းရရှိ သည့် အချက်အလက်များအပေါ် အခြေခံ၍ ဤအစီရင်ခံစာအား ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်း နှင့်အညီ ရေးသားပြုစုထားပါသည်။

1.2.3 လိုက်နာဆောင်ရွက်မည့် ဥပဒေ၊ ဒီကရီ၊ စည်းမျဉ်းစည်းကမ်း၊ စံချိန်စံညွှန်း၊ လမ်းညွှန်ချက်များ

လုပ်ငန်းနှင့်သက်ဆိုင်သော မြန်မာနိုင်ငံ၏ ပတ်ဝန်းကျင်ဆိုင်ရာနှင့် အခြား တည်ဆဲဥပဒေ၊ ဒီကရီ၊ စည်းမျဉ်းစည်းကမ်း၊ စံချိန်စံညွှန်း၊ လမ်းညွှန်ချက်များနှင့် လုပ်ငန်းနှင့်သက်ဆိုင်သည့် နိုင်ငံတကာ သို့မဟုတ် ဒေသဆိုင်ရာ သဘောတူညီချက်များကို စီမံကိန်းက လိုက်နာဆောင်ရွက်သွားပါမည်။

မြန်မာနိုင်ငံတွင် အကောင်အထည်ဖော်ရန် အဆိုပြုထားသော စီမံကိန်းအတွက် ဥပဒေဆိုင်ရာ စီမံကိန်းနှင့် သက်ဆိုင်လိုက်နာဆောင်ရွက်မည့် မြန်မာနိုင်ငံ၏ တည်ဆဲ ဥပဒေ၊ စည်းမျဉ်းများ၊ လုပ်ထုံးလုပ်နည်းများ၊ ညွှန်ကြားချက်များနှင့် စီမံကိန်းနှင့် သက်ဆိုင်သည့် နိုင်ငံတကာ သို့မဟုတ် ဒေသဆိုင်ရာ သဘောတူညီချက်များကို အောက်တွင် အတိုချုံး တင်ပြထားပါသည်။ အသေးစိတ်ကို အခန်း-၂ တွင်လည်း ဖော်ပြထားပါသည်။

1. Constitution 2008
2. Environmental Conservation Law, 30 March 2012
3. Environmental Conservation Rules, 2014
4. Environmental Impact Assessment Procedure (December 2015)
5. National Environmental Quality (Emission) Guideline (NEQG) (December 2015)
6. National Environmental Policy of Myanmar (2019)
7. Foreign Investment Law, 2012
8. Foreign Investment Rule, 2013

9. Myanmar Investment Rule, 2017
10. Myanmar Insurance Law (1993)
11. Payment of Wages Law (2016)
12. The Amended Law for Factories Act, 1951 (2016)
13. The Private Industrial Enterprise Law, 1990
14. The Export and Import Law (2012)
15. The Prevention of Hazard from Chemical and Related Substances Law, 2013
16. Underground Water Act
17. Myanmar Fire Brigade Law (2015)
18. The Electricity Law (2014)
19. Boiler Law (2015)
20. Labor Dispute Settlement Law (28 March 2012 replacing 1929 version)
21. The Social Security Law (2012)
22. The Employment and Skill Development (2013)
23. The Worker's Compensation Act, 1923
24. The Payment of Wages Act, 1936
25. The Leave and Holidays Act, (1951, partially revised in 2014)
26. The Minimum Wage Law (2013)
27. Public Health Law (1972)
28. Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)
29. Occupational Safety and Health Law (2019)
30. The Law on Standardization
31. The Motor Vehicles Law (2015)
32. The Conservation of Water Resources and River Law (2006)
33. The Commercial Tax Law (1990) Amended 2014

1.2.3.1 ပတ်ဝန်းကျင်ဆိုင်ရာနှင့် လူမှုဆိုင်ရာ စံချိန်စံညွှန်း၊ လမ်းညွှန်ချက်များ

စီမံကိန်းဆောင်ရွက်သူ အနေဖြင့် ထုတ်ပြန်ထားသည့် ဥပဒေ၊ နည်းဥပဒေ၊ အမိန့်၊ ညွှန်ကြားချက်များနှင့်အညီ ပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာ ကောင်းမွန်သည့် အလေ့အကျင့်များ ကျင့်သုံး၍ စီမံကိန်းအား လည်ပတ်သွားမည်ဖြစ်ပါသည်။

အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ ၏ အထွေထွေလမ်းညွှန်ချက်များမှ ထုတ်လွှတ် အခိုးအငွေ၊ စွန့်ပစ်ရေ၊ ဆူညံသံ၊ နှင့် အနံ့ ဆိုင်ရာ လမ်းညွှန်ချက်များနှင့် အညီ စီမံကိန်းက လိုက်နာဆောင်ရွက်သွားပါမည်။ အသေးစိတ်ကို အခန်း (၂) ၌ ဖော်ပြထားပါသည်။

စီမံကိန်းဆောင်ရွက်သူအနေဖြင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာဆောင်ရွက်မှု သက်သေခံလက်မှတ်ရရှိထားသော အတည်ပြုပြီးဖြစ်သည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို စီမံကိန်းကာလတလျှောက်လုံး အကောင်အထည်ဖော်လုပ်ဆောင်နိုင်ရန် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး သီးသန့်ရန်ပုံငွေစာရင်းထား၍ စီမံကိန်းကာလတလျှောက်လုံး ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို မပျက်မကွက် လုပ်ဆောင်သွားပါမည်။

စီမံကိန်းဆောင်ရွက်သူ အနေဖြင့် စီမံကိန်းဆိုင်ရာ အခွန်အခအားလုံးအား ပေးဆောင်သွား ရမည် ဖြစ်ကြောင်း နားလည်သဘောပေါက်ပြီး ဖြစ်ပါသည်။ စီမံကိန်းဝန်ထမ်းများ၏ သက်သာ ချောင်ချိရေးအတွက် သက်သာချောင်ချိရေးအစီအစဉ်များအား ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

ကုမ္ပဏီလီမိတက်အနေဖြင့် စီမံကိန်းလုပ်ငန်းလည်ပတ်ရာမှ ရရှိလာမည့် နှစ်စဉ်အသားတင် အကျိုးအမြတ် ဝင်ငွေ၏ (၂) ရာခိုင်နှုန်း ကို လူမှုစီးပွား သီးသန့်ရန်ပုံငွေ အဖြစ် လျာထားပြီး စီမံကိန်းတည်ရှိရာ ဒေသ (ဥဿာ(၈)ရပ်ကွက်၊ ပဲခူးမြို့နယ်) ၏ လူမှုစီးပွားဖွံ့ဖြိုးရေး လုပ်ငန်းများတွင် CSR အစီအစဉ်အား အကောင်အထည်ဖော်ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။

1.2.3.2 ကျန်းမာရေးဆိုင်ရာ စံချိန်စံညွှန်း၊ လမ်းညွှန်ချက်များ

လုပ်ငန်းခွင်အတွင်း လုပ်ကိုင်နေသူများ၏ ကျန်းမာရေးစောင့်ရှောက်ပေးရန် ဆေးခန်းဖွင့်ပေးပါမည်။ ကမ္ဘာ့ကျန်းမာရေးအဖွဲ့စံချိန်စံညွှန်းနှင့်ညီသော FDA မှ အသိအမှတ်ပြုသည့် သောက်ရေသန့်ကို သောက်သုံးနိုင်ရန် စီစဉ်ထားပါသည်။

1.2.4 ဖွဲ့စည်းမှုဆိုင်ရာ စီစဉ်ဆောင်ရွက်မှုများ

လိုင်းတက်(ခ်) အင်ဒပ်စရီယယ်ကုမ္ပဏီလီမိတက်၏ CONTRACT, MANUFACTURING, AND PROCESSING (CMP) စနစ်ဖြင့် လူသုံးကုန်လျှပ်စစ်ပစ္စည်းများထုတ်လုပ်ခြင်းလုပ်ငန်း စီမံကိန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် အစီရင်ခံစာကို လုပ်ထုံးလုပ်နည်းပါ အချက်အလက်များနှင့်အညီ အညီ ရေးဆွဲရန် လိုင်းတက်(ခ်) အင်ဒပ်စရီယယ်ကုမ္ပဏီလီမိတက်က ဆောင်ရွက်ထားပါသည်။

CONTRACT, MANUFACTURING, AND PROCESSING (CMP) စနစ်ဖြင့် လူသုံးကုန် လျှပ်စစ်ပစ္စည်းများထုတ်လုပ်ခြင်းလုပ်ငန်းစီမံကိန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲခြင်းကို ဆောင်ရွက်ရန် လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ်ကုမ္ပဏီလီမိတက် (စီမံကိန်းအဆိုပြုသူ)က ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်း အပိုဒ် ၁၈ နှင့်အညီ လုပ်ငန်းလိုင်စင် ရယူထားသော ပုဂ္ဂိုလ်များကို ခန့်အပ်ထားပါသည်။

လိုင်းတက်(ခ်) အင်ဒပ်စရီယယ်ကုမ္ပဏီလီမိတက်၏ CONTRACT, MANUFACTURING, AND PROCESSING (CMP) စနစ်ဖြင့် လူသုံးကုန်လျှပ်စစ်ပစ္စည်းများထုတ်လုပ်ခြင်းလုပ်ငန်း စီမံကိန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်ကို အကောင်အထည်ဖော် လုပ်ဆောင်ရာတွင် အောင်မြင်မှု အပြည့် ရရှိနိုင်ရန် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်စီမံခန့်ခွဲရေးအဖွဲ့ နှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် လုပ်ဆောင်ရေးအဖွဲ့များဖြင့် လုပ်ဆောင်သွားပါမည်။ ထိုအဖွဲ့များကို ဖွဲ့စည်းပြီး လိုအပ်သည့် ပညာပေးသင်တန်းများ သင်ကြားပေးသွားပါမည်။ အသေးစိတ်ကို အခန်း (၂) ၌ ဖော်ပြထားပါသည်။

1.3 စီမံကိန်းအကြောင်းအရာဖော်ပြချက် နှင့် အခြားနည်းအကြောင်းအရာဖော်ပြချက်

စီမံကိန်းကိုအပြည့်အဝ သိရှိနားလည်နိုင်ရန်နှင့် စီမံကိန်းလုပ်ဆောင်မှုများနှင့်ပတ်သက်၍ သတင်းအချက်အလက်များကို စုစည်းနိုင်ရန်အတွက် စီမံကိန်းအကြောင်းအရာများကို ပြန်လည်လေ့လာသုံးသပ်ခဲ့ပါသည်။ စီမံကိန်းအကြောင်းအရာဖော်ပြချက်ကို အခန်း (၃) တွင် ရေးသားဖော်ပြထားပါသည်။

1.3.1 စီမံကိန်းနောက်ခံအကြောင်းအရာ

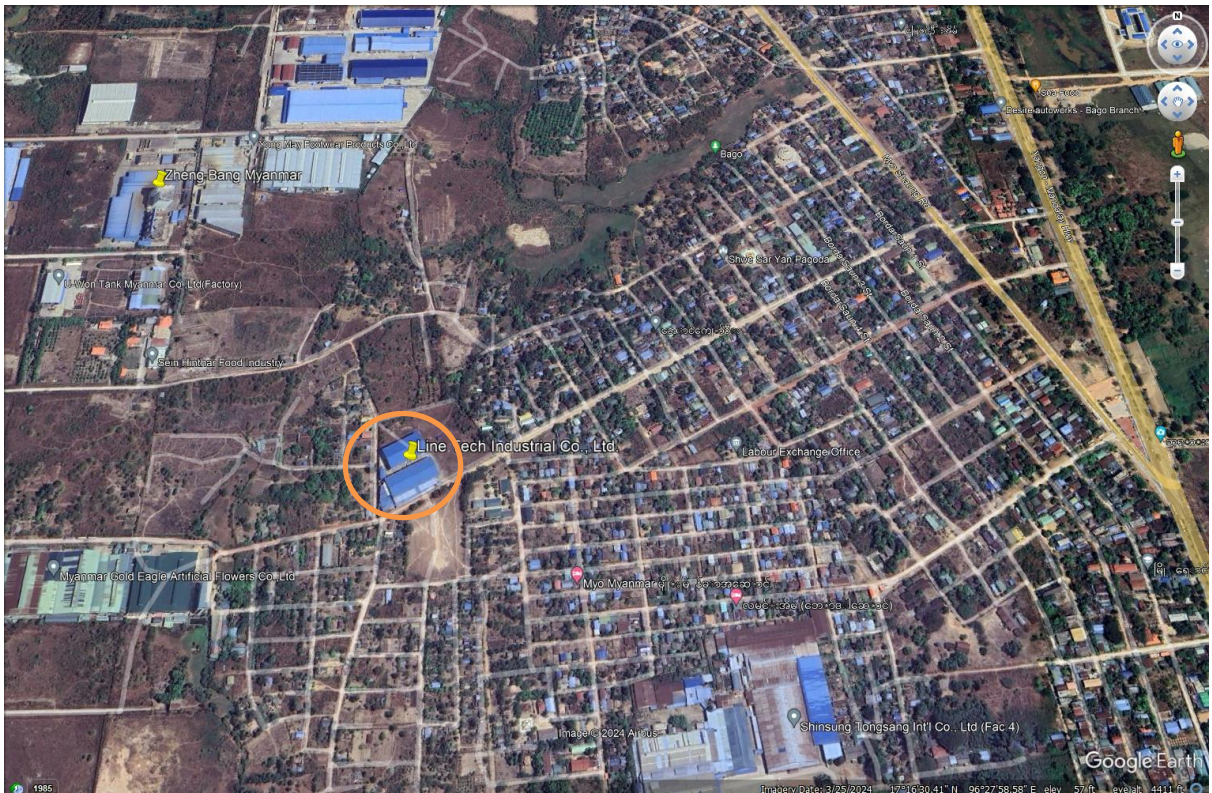
လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ် ကုမ္ပဏီလီမိတက်သည် အဆိုပြုစီမံကိန်းကို အကောင်အထည် ဖော်ဆောင်ရွက်နိုင်ရန် ပဲခူးတိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ၏ အတည်ပြုမိန့် (အတည်ပြုမိန့် အမှတ် ပခတ-၀၃၁/၂၀၁၉ ရက်စွဲ ၂၀၁၉ ခုနှစ်၊ ဒီဇင်ဘာလ၊ ၂၀ ရက်) ရရှိခဲ့ပြီးဖြစ်ပါသည်။

စီမံကိန်းအတွက် စုစုပေါင်းရင်းနှီးမြှုပ်နှံမှု ယူအက်စ်ဒေါ်လာ ၁.၃၅၁ သန်း (ပဲခူးတိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီ၏ အတည်ပြုမိန့် ထုတ်ပေးသည့်ရက်စွဲမှ ၁ နှစ် အတွင်း နိုင်ငံခြားငွေ ယူအက်စ်ဒေါ်လာ ၁.၃၅၁ သန်း ယူဆောင်လာခဲ့ပါသည်) ဖြင့် စတင်၍ အဆိုပြုစီမံကိန်း တည်ဆောက်မှု/ပြင်ဆင်မှုကာလ (၁ နှစ်) အတွင်း စက်ရုံတည်ဆောက်ခြင်းနှင့် စက်ပစ္စည်းကရိယာ တပ်ဆင်ခြင်း လုပ်ငန်းများ လုပ်ဆောင်ပြီးစီးခဲ့ပြီး ဖြစ်ပါသည်။

အဆိုပြုစီမံကိန်း၏ ခွင့်ပြု လုပ်ငန်းလည်ပတ်မှုကာလ ၂၀၂၀ ဒီဇင်ဘာလမှ စ၍ CONTRACT, MANUFACTURING, AND PROCESSING (CMP) စနစ်ဖြင့် လူသုံးကုန် လျှပ်စစ်ပစ္စည်းများ ထုတ်လုပ်ခြင်းလုပ်ငန်းအား စတင်လုပ်ဆောင်ခဲ့ပြီး လက်ရှိ ၂၀၂၄ ခုနှစ်တွင် ဆက်လက်၍ လုပ်ငန်းလည်ပတ်မှုအဆင့် အနေဖြင့် လုပ်ဆောင်နေပါသည်။

1.3.2 စီမံကိန်းတည်နေရာပြမြေပုံ

စီမံကိန်းသည် ကိုဩဒိနိတ်အမှတ် (17°16'23.84"N, 96°27'33.80"E) မြေကွက်အမှတ်- သီးသန့်(၁)၊ အကွက်အမှတ်-မြေတိုင်း(၂၄)၊ ဥဿာ(၈)ရပ်ကွက်၊ ပဲခူးမြို့နယ်၊ ပဲခူးတိုင်းဒေသကြီး၌ တည်ရှိပါသည်။



စီမံကိန်းတည်နေရာပြမြေပုံ (17°16'23.84"N, 96°27'33.80"E)

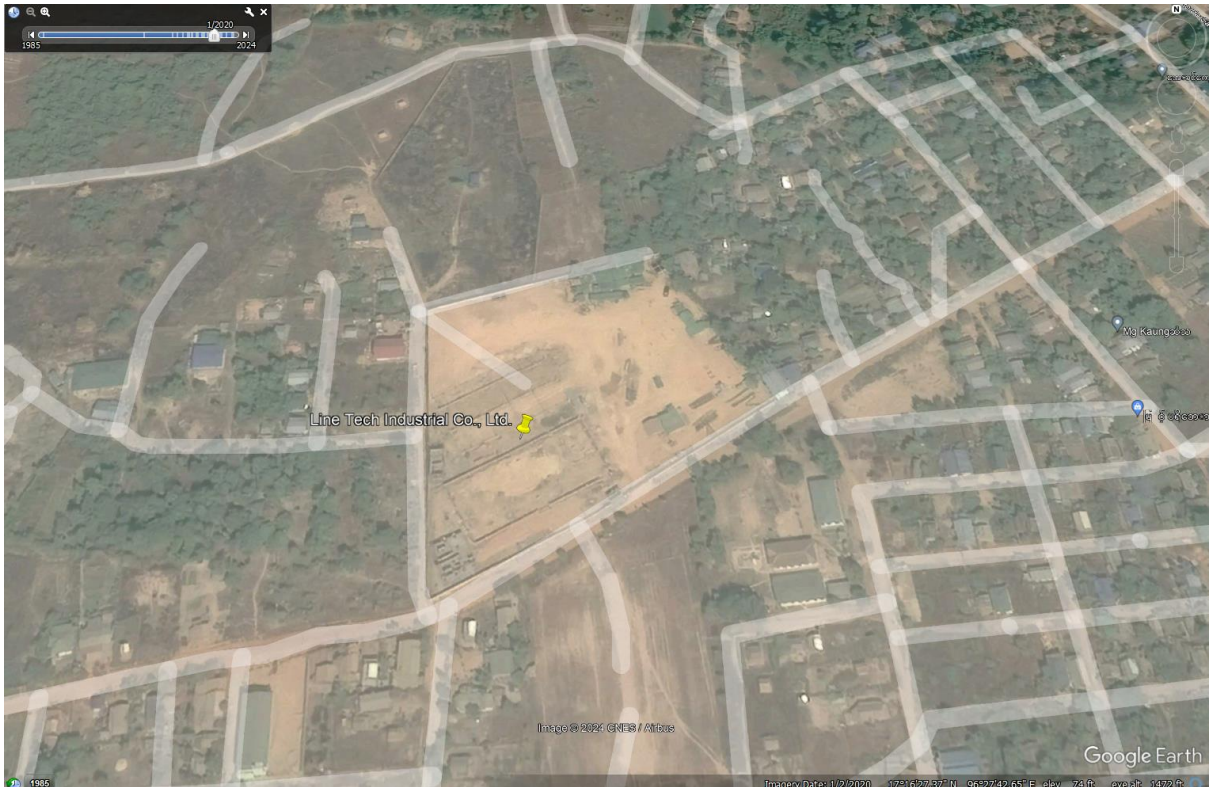


စီမံကိန်းတည်နေရာပြမြေပုံ (17°16'23.84"N, 96°27'33.80"E)

1.3.3 စီမံကိန်း မြေအသုံးချမှု နှင့် နေရာချထားမှု အစီအစဉ်

မြေကွက်အမှတ်-သီးသန့်(၁)၊ အကွက်အမှတ်-မြေတိုင်း(၂၄)၊ ဥဿာ(၈)ရပ်ကွက်၊ ပဲခူးမြို့နယ်၊ ပဲခူးတိုင်းဒေသကြီး၌တည်ရှိသည့် မြို့မြေ၏ (၂.၈)ဧက (၁၁၃၃၀)စတုရန်းမီတာ အနက်မှ (၁.၄)ဧက (၅၆၆၅)စတုရန်းမီတာပေါ်တွင် အဆိုပြုစီမံကိန်းလုပ်ဆောင်နိုင်ရန် မြေပိုင်ရှင် (ဒေါ်နွယ်နွယ်အောင်၊ မြန်မာ ၇/ပခန(နိုင်)၀၉၃၉၇၀) နှင့် ငှားရမ်းသူ (Mr. Wang, Chia-Long, Taiwan passport no.302604671) (Line Tech Industrial Co., Ltd.) တို့ ၂၀၁၉ တွင် နှစ်ဦးနှစ်ဘက် သဘောတူမြေငှားစာချုပ် ချုပ်ဆိုငှားရမ်းထားပါသည်။

စီမံကိန်းမြေဧရိယာသည် လူနေရပ်ကွက်အတွင်း သီးသန့်မြေနေရာဖြစ်ပြီး၊ သစ်တောမြေနှင့် အခြားဒေသအစုအဖွဲ့ပိုင်မြေပိုင်ဆိုင်မှုများမှ လွတ်ကင်းပါသည်။ ထို့ကြောင့် စီမံကိန်း၏ မြေပိုင်ဆိုင်မှု သည် ရှင်းလင်းမှုရှိပါသည်။ ရွေးချယ်ထားသော သီးသန့်မြေဧရိယာကို လိုင်းတက်(ခ်)အင်ဒပ်စရီယယ် ကုမ္ပဏီလီမိတက်၏ CONTRACT, MANUFACTURING, AND PROCESSING (CMP) စနစ်ဖြင့် လူသုံးကုန် လျှပ်စစ်ပစ္စည်းများ ထုတ်လုပ်မှုအတွက် စီမံကိန်းနေရာအဖြစ် အသုံးပြုသွားမည်ဖြစ်သည်။



Cleared Reserved Land Area Map in January 2020

စီမံကိန်းသည် မြေဧရိယာ (၁.၄) ဧက၌ ဆောင်ရွက်ခြင်း ဖြစ်ပြီး၊ မြေကွက်အမှတ်-သီးသန့်(၁)၊ အကွက်အမှတ်-မြေတိုင်း(၂၄)၊ ဥဿာ(၈)ရပ်ကွက်၊ ပဲခူးမြို့နယ်၊ ပဲခူးတိုင်းဒေသကြီး (ကိုဩဒိနိတ် အမှတ် 17°16'23.84"N, 96°27'33.80"E) ၌ တည်ရှိပါသည်။

စီမံကိန်းမြေ အသုံးချမှုကို အောက်ပါ ဇယားဖြင့် ရှင်းလင်းဖော်ပြအပ်ပါသည်-

လက်ရှိမြေအသုံးချမှုအခြေအနေ (၂၀၂၄ ခုနှစ်)

မြေအသုံးချမှု	ဧက	မြေအသုံးချမှု ရာခိုင်နှုန်း
အဆိုပြုစီမံကိန်းအတွက် အသုံးချမှု	၁.၄	၁၀၀.၀၀
စုစုပေါင်း	၁.၄	၁၀၀.၀၀

စီမံကိန်းမြေဧရိယာ (၁.၄) ဧကကို အောက်ပါအတိုင်း အသုံးချသွားပါမည်-

စီမံကိန်းမြေဧရိယာ (၁.၄)ဧက မြေအသုံးချမှု

မြေအသုံးချမှု	ဧက	မြေအသုံးချမှု ရာခိုင်နှုန်း
LTICL အဆောက်အဦ	၁.၁၈၅	၁၀၀

စုစုပေါင်း	၁.၁၈၅	၁၀၀



Existing & Proposed Project Land Use Layout in the selected Land Area in March 2024

1.3.4 စီမံကိန်းအကောင်အထည်ဖော်ရေးအချိန်ဇယား

ပဲခူးတိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မရှင်က အတည်ပြုထားချက်အတိုင်း စီမံကိန်း အကောင်အထည်ဖော်ရေး အချိန်ဇယားကို အောက်ပါအတိုင်း တင်ပြအပ်ပါသည်-

ကာလ	စတင်ခြင်း	ကာလ	ပြီးဆုံးမှု %
ဖွံ့ဖြိုးရေး	၂၀၁၉ ဩဂုတ်လ	၁၂ လ	၁၀၀%
လည်ပတ်ရေး	၂၀၂၀ ဇန်နဝါရီ	၂၀ နှစ်	ဆောင်ရွက်လျက်ရှိ
ဖျက်သိမ်းရေး	TBA	၃ လ မှ ၆ လ	တင်ပြရန်မရှိပါ

1.3.5 စီမံကိန်းအပိုင်း

1.3.5.1 စီမံကိန်းစက်ရုံတည်ဆောက်ခြင်းနှင့် စက်ကရိယာတပ်ဆင်ခြင်း

စီမံကိန်းဖွံ့ဖြိုးရေးအစီအစဉ်ကို လျာထားသော မြေနေရာတွင် ၂၀၁၉ တွင် စတင် အကောင်အထည် ဖော် ဆောင်ရွက်ခဲ့ရာ သတ်မှတ်ကာလ (တနှစ်) အတွင်း ပြီးစီးခဲ့ပြီး ဖြစ်၍ စီမံကိန်းကုန်ထုတ်လုပ်ငန်း အစီအစဉ်ကို ယခုအခါ ဆက်လက် ဆောင်ရွက်နေပြီ ဖြစ်ပါသည်။ စီမံကိန်းဖွံ့ဖြိုးရေးအစီအစဉ်၏ အကြိုတည်ဆောက်ရေး ဒီဇိုင်းအဆင့်တွင် လုပ်ငန်းနှင့် သင့်လျော်မည့် အခြေခံအဆောက်အအုံနှင့် အဆောက်အအုံပုံစံ၊ တပ်ဆင်မည့် လျှပ်စစ်နှင့် စက်ပစ္စည်း ကိရိယာများ၊ လုပ်ငန်းအသုံးအဆောင် ကိရိယာများ ရွေးချယ်ခြင်း၊ တို့ပါဝင်ပြီး တည်ဆောက်ရေးအဆင့်တွင် ရွေးချယ်ထားသော ဒီဇိုင်း ပုံစံအရ အခြေခံအဆောက်အအုံနှင့် အဆောက်အအုံဆောက်လုပ်ခြင်း၊ လျှပ်စစ်နှင့် စက်ပစ္စည်း ကိရိယာများ၊ လုပ်ငန်းအသုံးအဆောင် ကိရိယာများ တပ်ဆင်ခြင်း၊ လုပ်ငန်းအတွက် လိုအပ်သလို စီမံခန့်ခွဲနိုင်ရန် ပြင်ဆင်ထားသော အစီအစဉ်ကို အောက်ပါဇယားတွင် ဖော်ပြထားပါသည် -

LTICL အဆောက်အအုံ/စက်ကရိယာ ဖော်ပြချက်များ

စဉ်	အဆောက်အအုံ/စက်ကရိယာ ဖော်ပြချက်
၁	စက်ရုံ (၂ ခု) + ဝန်ထမ်းအိမ် (၁ ခု)၊ မီးစက်ခန်း (၁ ခု)၊ လုံခြုံရေးဂိတ် (၁ ခု)၊ ကားရပ်နားရန်နေရာ၊ မြေအောက်ရေလှောင်ကန်၊ အုတ်တံတိုင်း၊ ကွန်ကရစ်ကြမ်းခင်း တည်ဆောက်ခြင်း
၂	လျှပ်စစ်နှင့် စက်ကရိယာများ တပ်ဆင်ခြင်း
၃	ပုံမှန် လျှပ်စစ် ဓါတ်အားပေးစနစ် - 500 KVA 3PH 50, RESB, Transformer (1 no.) အရေးပေါ်လျှပ်စစ် ဓါတ်အားပေးစနစ် - KVA Generator 200 KVA Generator
၄	အထွေထွေအသုံးပြုသော ရေထောက်ပံ့ရေးစနစ် ရေအရင်းအမြစ် - မြေအောက်ရေ (၁ တွင်း) လုပ်ငန်းလည်ပတ်မှု - ၂ လက်မရေတွင်းမှ ရေစုပ်စက်ဖြင့် သိုလှောင်ကန်အတွက် စုပ်ယူ သိုလှောင်မှု - သုံးရေ / မီးသတ်ရေ ကန်စနစ် သောက်ရေ - လက်ရှိအလေ့အကျင့်နှင့် ခွင့်ပြုထားသော သောက်သုံးရေထုတ်ကုန်များကိုသာ အသုံးပြုရန် စီစဉ်
၅	မုန်တိုင်း နှင့် မိုးရေ စီဆင်းမှုအာ အများပြည်သူရေမြောင်းသို့ တိုက်ရိုက်ချိတ်ဆက်ထား
၆	အများသုံးရေမြောင်းသို့မစွန့်ပစ်မီ စွန့်ပစ်ရေသန့်စင်မှုစနစ် (စစ်ထုတ်ခြင်း)

၇	အညစ်အကြေးသန့်စင်စနစ်(မိလ္လာကန်)
၈	အထွေထွေ အမှိုက် စီမံခန့်ခွဲရေးစနစ် (အမှိုက် စုဆောင်း၍ BTDC သို့ပေးပို့စွန့်ပစ်ခြင်း);
၉	၂၄ နာရီ လုံခြုံရေး (အစောင့်) ဝန်ဆောင်မှု
၁၀	အရေးပေါ်မီးနှင့် ဘေးအန္တရာယ်စီမံခန့်ခွဲရေးစနစ်

လုပ်ငန်း အပြင်အဆင်အစီအစဉ် အရ ပြည်ပမှတင်သွင်းခဲ့သော စက်ပစ္စည်းများ နှင့် ပစ္စည်းကိရိယာများ ကို အောက်တွင်ဖော်ပြထားပါသည်။

စက်နှင့် ပစ္စည်းကိရိယာစာရင်း (ပြည်ပမှ တင်သွင်းခဲ့သော)

စဉ်	စက်နှင့် ပစ္စည်းကိရိယာ ဖော်ပြချက်	ယူနစ်	ပမာဏ
1.	Horizontal Injection Machine (13 Nos.)	Lot	1
2.	Stand Injection Machine (15 Nos.)	Lot	1
3.	Blister Machine (5 Nos.)	Lot	1
4.	High Frequency Machine (3 Nos.)	Lot	1
5.	Pad Printing Machine (4 Nos.)	Lot	1
6.	Ultrasonic Machine (4 Nos.)	Lot	1
7.	Auto Wire Cutting Machine (2 Nos.)	Lot	1
8.	Wire Stripping Machine (10 Nos.)	Lot	1
9.	Mini Punching Machine (10 Nos.)	Lot	1
10.	Terminal Crimping Machine (6 Nos.)	Lot	1
11.	Cooling Water Machine (2 Nos.)	Lot	1
12.	Mold Temperature Machine (3 Nos.)	Lot	1
13.	Screw Air Compressor (2 Nos.)	Lot	1
14.	Air Storage Tank (2 Nos.)	Lot	1
15.	Freeze Dryer Machine (2 Nos.)	Lot	1
16.	Mold Storage Rack MSG (3 Nos.)	Lot	1
17.	Assembly Line 10-15 Meter (5 Nos.)	Lot	1
18.	Power Generator 350 KW (1 Nos.)	Lot	1
19.	Baking Line 10-15 Meter (1 No.)	Lot	1
20.	Mixing Machine BLG (3 Nos.)	Lot	1
21.	Plastic Crush machine FSG (2 Nos.)	Lot	1
22.	Cooling Tower LCT (1 No.)	Lot	1
23.	Hydraulic Elevator WL-A (1 No.)	Lot	1
24.	Engine Forklift HELI (1 No.)	Lot	1
25.	Forklift HC-A (6 Nos.)	Lot	1
26.	Water Cabinet (2 nos.)	Lot	1

1.3.5.2 နှစ်အလိုက် ပြည်ပမှ တင်သွင်းမည့် ကုန်ကြမ်း ပစ္စည်းများ

LTICL စီမံကိန်း ကုန်ထုတ်လုပ်ငန်းတွင် အသုံးပြုရန် နှစ်အလိုက် ပြည်ပမှ တင်သွင်းမည့် ကုန်ကြမ်း ပစ္စည်းများကို အောက်ပါဇယားတွင် ဖော်ပြထားပါသည်။

နှစ်အလိုက် ပြည်ပမှ တင်သွင်းမည့် ကုန်ကြမ်းပစ္စည်းစာရင်း

စဉ်	ကုန်ကြမ်းအမျိုးအစား	ယူနစ်	ပမာဏ				
			နှစ်-၁	နှစ်-၂	နှစ်-၃	နှစ်-၄	နှစ်-၅
1.	Brass Copper Roll	Kg	200,000	200,000	200,000	200,000	200,000
2.	Iron Roll	Kg	200,000	200,000	200,000	200,000	200,000
3.	Phosphor Copper Roll	Kg	200,000	200,000	200,000	200,000	200,000
4.	Stainless Steel Roll	Kg	200,000	200,000	200,000	200,000	200,000
5.	ABS	Kg	200,000	200,000	200,000	200,000	200,000
6.	ABS + PE	Kg	200,000	200,000	200,000	200,000	200,000
7.	AS	Kg	200,000	200,000	200,000	200,000	200,000
8.	HDPE	Kg	200,000	200,000	200,000	200,000	200,000
9.	HIPS	Kg	200,000	200,000	200,000	200,000	200,000
10.	PC	Kg	200,000	200,000	200,000	200,000	200,000
11.	PE	Kg	200,000	200,000	200,000	200,000	200,000
12.	PET	Kg	200,000	200,000	200,000	200,000	200,000
13.	PMMA	Kg	200,000	200,000	200,000	200,000	200,000
14.	POM	Kg	200,000	200,000	200,000	200,000	200,000
15.	PP	Kg	200,000	200,000	200,000	200,000	200,000
16.	PS	Kg	200,000	200,000	200,000	200,000	200,000
17.	PVC	Kg	200,000	200,000	200,000	200,000	200,000
18.	TPE	Kg	200,000	200,000	200,000	200,000	200,000
19.	Modular Plug	Kg	200,000	200,000	200,000	200,000	200,000
20.	Material Terminal	Kg	200,000	200,000	200,000	200,000	200,000
21.	Computer Plug	Kg	200,000	200,000	200,000	200,000	200,000

1.3.5.3 ကုန်ထုတ်လုပ်ခြင်း နည်းစဉ်

- အလိုအလျောက်စက် အသုံးပြု၍ ကွန်ပျူတာကြိုး ထုတ်လုပ်ခြင်းနည်းစဉ်
 - ဝါယာကြိုးမျှင် ထုတ်ယူခြင်း

- ကြေးဝါယာကြိုးမျှင် ထုတ်ယူခြင်း
- ဂဟေဆက်ခြင်း
- ပုံသွင်းခြင်း
- စမ်းသပ်ခြင်း
- ထုတ်ပိုးခြင်း

- အလိုအလျောက်စက် အသုံးပြု၍ တယ်လီဖုန်းကြိုး ထုတ်လုပ်ခြင်းနည်းစဉ်
 - ဝါယာကြိုးမျှင် ထုတ်ယူခြင်း
 - ပလပ်အတွင်း ဝါယာကြိုးထည့်သွင်းခြင်း
 - ဝါယာကြိုး ပလပ်တွင် ခိုင်မြဲစေရန် ဖိညှပ်ခြင်း
 - စမ်းသပ်ခြင်း
 - ထုတ်ပိုးခြင်း

ကုန်ထုတ်လုပ်ငန်းနည်းစဉ်ပုံကို နောက်ဆက်တွဲ -၆ တွင် ဖော်ပြထားပါသည်။

1.3.5.4 နှစ်အလိုက်ကုန်ထုတ်လုပ်မှုအစီအစဉ်

LTICL ၏ နှစ်အလိုက် မျှော်မှန်းထုတ်လုပ်မှုစာရင်းမှာအောက်ပါအတိုင်းဖြစ်ပါသည် -

ပြည်ပဈေးကွက်အတွက် ထုတ်ကုန်များ

စဉ်	ထုတ်ကုန်အမျိုးအစား	ယူနစ်	ပမာဏ (ထောင်ပေါင်း)				
			နှစ်-၁	နှစ်-၂	နှစ်-၃	နှစ်-၄	နှစ်-၅
1.	Computer Cable	Pcs.	600	600	600	600	600
2.	Telephone Cable	Pcs	300	300	300	300	300
3.	LED Tealight	Pcs	12,000	13,200	13,200	13,800	13,800
4.	LED Waterproof Tealight	Pcs	1,200	1,320	1,320	1,380	1,380
5.	LED Tealight SATA	Pcs	1,200	1,320	1,320	1,380	1,380
6.	LED Tealight Butterfly	Pcs	1,200	1,320	1,320	1,380	1,380
7.	LED Tealight Transparent	Pcs	1,200	1,320	1,320	1,380	1,380
8.	LED Solar Tealight	Pcs	600	660	660	690	690
9.	LED Votive Tealight Candle	Pcs	1,200	1,320	1,320	1,380	1,380
10.	LED Plastic Skull Candle Light	Pcs	1,200	1,320	1,320	1,380	1,380
11.	LED Pillar Candle Light	Pcs	1,200	1,320	1,320	1,380	1,380
12.	LED Taper Candle	Pcs	1,200	1,320	1,320	1,380	1,380

စဉ်	ထုတ်ကုန်အမျိုးအစား	ယူနစ်	ပမာဏ (ထောင်ပေါင်း)				
			နှစ်-၁	နှစ်-၂	နှစ်-၃	နှစ်-၄	နှစ်-၅
13.	LED Halloween Taper Candle	Pcs	1,200	1,320	1,320	1,380	1,380
14.	LED ER Taper Candle	Pcs	1,200	1,320	1,320	1,380	1,380
15.	LED Crystal Lamp	Pcs	1,200	1,320	1,320	1,380	1,380
16.	LED Lantern Light	Pcs	1,200	1,320	1,320	1,380	1,380
17.	LED Lantern Light	Pcs	1,200	1,320	1,320	1,380	1,380
18.	BO String Light	Pcs	1,200	1,320	1,320	1,380	1,380
19.	Lamp String Datab Cable	Pcs	240	264	264	276	276
20.	LED Necklace Light	Pcs.	1,200	1,320	1,320	1,380	1,380
21.	Light Up Bulb Earrings	Pcs	1,200	1,320	1,320	1,380	1,380
22.	LED Necklace Light	Pcs	240	264	264	276	276
23.	Luminous Mask	Pcs	1,200	1,320	1,320	1,380	1,380
24.	Light Helmet	Pcs	1,200	1,320	1,320	1,380	1,380
25.	Emergency Charger	Pcs	600	660	660	690	690
26.	Car Charger	Pcs	600	660	660	690	690
27.	Plastic Mobile Phone Cover	Pcs	600	660	660	690	690
28.	Mobile Phone Stand	Pcs	1,200	1,320	1,320	1,380	1,380
29.	Mobile Phone Stand	Pcs	1,200	1,320	1,320	1,380	1,380
30.	Headset	Pcs	1,200	1,320	1,320	1,380	1,380
31.	Printing Headphones	Pcs	1,200	1,320	1,320	1,380	1,380
32.	Audio	Pcs	600	660	660	690	690
33.	Light Sound	Pcs	240	264	264	276	276
34.	Watch Sheath	Pcs	600	660	660	690	690
35.	Solid Watch Band	Pcs	600	660	660	690	690
36.	Watch Stents	Pcs	600	660	660	690	690
37.	Audio Splitter	Pcs	240	264	264	276	276
38.	Audio Line	Pcs	1,200	1,320	1,320	1,380	1,380
39.	Luminescent Data Cable	Pcs.	600	660	660	690	690
40.	Induction Lamp	Pcs	600	660	660	690	690
41.	Flashlight	Pcs	120	132	132	138	138
42.	Flashlight	Pcs	120	132	132	138	138
43.	Book Reading lamp	Pcs	240	264	264	276	276
44.	Night Light	Pcs	600	660	660	690	690
45.	USB Light	Pcs	600	660	660	690	690
46.	Holding a Fan	Pcs	240	264	264	276	276
47.	Mini Desk Fan	Pcs	240	264	264	276	276
48.	Holding a Fan	Pcs	240	264	264	276	276
49.	Solar Flower Electronic Gift	Pcs	240	264	264	276	276

စဉ်	ထုတ်ကုန်အမျိုးအစား	ယူနစ်	ပမာဏ (ထောင်ပေါင်း)				
			နှစ်-၁	နှစ်-၂	နှစ်-၃	နှစ်-၄	နှစ်-၅
50.	Mobile Phone Gift	Pcs	240	264	264	276	276
51.	Cliop Sound Girt	Pcs	600	660	660	690	690

1.3.5.5 နှစ်စဉ် လောင်စာ/ဓါတုပစ္စည်း သုံးစွဲမှု

နှစ်စဉ် လောင်စာ/ဓါတုပစ္စည်း သုံးစွဲရာတွင် စီမံကိန်းလည်ပတ်မှုနှင့် ပြုပြင်ထိန်းသိမ်းမှုတွင် အများစုအသုံးပြုပြီး၊ သယ်ယူပို့ဆောင်ရန် မော်တော်ယာဉ်များ သုံးစွဲခြင်းတို့ပါဝင်ပါသည်။ (ဥပမာ - မီးစက်မောင်းနှင်ခြင်း၊ အိမ်သုံးဓာတုပစ္စည်းအသုံးပြုခြင်း)

နှစ်စဉ် လောင်စာ/ဓါတုပစ္စည်းသုံးစွဲမှု ခန့်မှန်းခြေ

စဉ်.	လောင်စာ/ဓါတုပစ္စည်း	နှစ်စဉ်အသုံးပြုမှု (ဂါလံ)
၁	အော့တိုနိုးဇျ (၃၀x၃x၁၂)	၁,၀၈၀
၂	ပရီမီယံဒီဇယ် (၃၀x၃x၁၂)	၁,၀၈၀
၃.	အင်ဂျင်/ဂီယာ/စက်ဆီ/ချောဆီ (၅x၂)	၁၀

1.3.5.6 နှစ်စဉ်လျှပ်စစ်သုံးစွဲမှု

လျှပ်စစ်ဓါတ်အား သုံးစွဲရာတွင် ပဲခူးမြို့နယ်လျှပ်စစ်ဓါတ်အားပေးရေးလုပ်ငန်း ၏ ဓါတ်အားဖြန့်ဖြူးရေးမှ ရယူသုံးစွဲသွားပါမည်။ လျှပ်စစ်မီးပြတ်တောက်ချိန်တွင် သုံးစွဲနိုင် ရန် ဒီဇယ်ဆီသုံးအရံမီးစက် အသင့်ထားရှိပါသည်။ လစဉ်လျှပ်စစ်သုံးစွဲမှုများအတွက် ကျသင့်ငွေများ ပေးဆောင်သွားမည်ဖြစ်ပြီး၊ သုံးစွဲမှု ခန့်မှန်းခြေအား အောက်ပါအတိုင်း တွက်ချက်ဖော်ပြအပ်ပါသည်-

နှစ်စဉ်လျှပ်စစ်ဓါတ်အားသုံးစွဲမှု (ယူနစ်- မီတာယူနစ်)

စဉ်	လျှပ်စစ်သုံးစွဲမှု	နှစ်စဉ်သုံးစွဲမှု
၁	ထရန်စဖော်မာ (၁) လုံး ဓါတ်အားဖြန့်ဖြူးရေးမှ ရယူသုံးစွဲခြင်း (ပုံမှန်လည်ပတ်ခြင်း)	၇၀,၁၈၀
၂	ဒီဇယ်ဆီသုံးမီးစက် (အရံစနစ်မှသုံးစွဲခြင်း)	၁၀၀
စုစုပေါင်း		၁၂၀၁၀၀

1.3.5.7 နှစ်စဉ်ရေသုံးစွဲမှု

နှစ်စဉ်ရေသုံးစွဲရာတွင် စက်ရုံစီမံကိန်းလည်ပတ်ရန် နှင့် ဝန်ထမ်းများအတွက် အဓိကထားသုံးစွဲမည်ဖြစ်ပြီး၊ မြေအောက်ရေအား ပဲခူးမြို့နယ်စည်ပင်သာယာရေးကော်မတီ၏ သတ်မှတ်ချက်နှင့်အညီ သုံးစွဲသွားမည်ဖြစ်ပါသည်။ မြေအောက်ရေအား အဝီစိတွင်းမှ မော်တာဖြင့်စုပ်ယူ၍ သိုလှောင်ကန်များတွင် သိုလှောင်ပြီးနောက် စီမံကိန်းအတွင်း နေ့စဉ်သုံးစွဲနိုင်ရန် ဖြန့်ဖြူးသွားမည်ဖြစ်ပြီး၊ စီမံကိန်းလည်ပတ်ခြင်း သုံးစွဲရန်နှင့် အရေးပေါ်မီးငြိမ်းသတ်ရန်အတွက်လည်း အရံသင့် ထားရှိပါမည်။ ရေသုံးစွဲမှု ခန့်မှန်းခြေအား အောက်ပါအတိုင်း ဖော်ပြအပ်ပါသည်-

နှစ်စဉ် ရေသုံးစွဲမှု (ဂါလံ)

စဉ်	ရေသုံးစွဲသည့်နေရာ	ရေသုံးစွဲမှုပမာဏ
၁	ဝန်ထမ်းများ အထွေထွေအိမ်သုံးအတွက် သုံးစွဲခြင်း (၁၈၀x၃၆၅x၂)	၁၃၁,၄၀၀
၂	စီမံကိန်းလည်ပတ်ရာတွင် သုံးစွဲခြင်း (၅၀၀x၃၆၅)	၁၈၂,၅၀၀
၃	မီးငြိမ်းသတ်ရန် အသင့်ထား သုံးစွဲခြင်း (မီးသတ်သင်တန်း နှင့် အရေးပေါ်)	၄၅,၀၀၀

1.3.5.8 စီမံကိန်းရင်းနှီးမြှုပ်နှံမှုပမာဏ

စီမံကိန်းဆောင်ရွက်ရန်အတွက် အမေရိကန်ဒေါ်လာ ၀.၆၀၀ သန်းအား ရင်းနှီးမြှုပ်နှံ သွားမည်ဖြစ်ပါသည်။

1.3.5.9 ဝန်ထမ်းလိုအပ်ချက်

စီမံကိန်းလည်ပတ်ရန် ဝန်ထမ်း (၁၈၀) ဦးခန့် လိုအပ်မည် ဖြစ်ပါသည်။

1.3.5.10 စီမံကိန်းကာလတစ်ခုစီအတွက် အချက်အလက်များ အကျဉ်းချုပ်ဖော်ပြချက်

စီမံကိန်းကာလတစ်ခုချင်းစီအတွက် အချက်အလက်များကို အောက်တွင် အကျဉ်းချုပ်၍ ဖော်ပြထား ပါသည်။

A. တည်ဆောက်ရေးကာလ

အမျိုးအစား	ဖော်ပြချက်
စီမံကိန်းအရွယ်အစား၊ တည်နေရာ	မြေဧရိယာ (1.4)ဧက၊ (17°16'23.84"N, 96°27'33.80"E) မြေကွက်အမှတ်- သီးသန့်(၁)၊ အကွက်အမှတ်-မြေတိုင်း(၂၄)၊ ဥဿာ(၈)ရပ်ကွက်၊ ပဲခူးမြို့နယ်၊

အမျိုးအစား	ဖော်ပြချက်
ရင်းနှီးမြှုပ်နှံမှု	အမေရိကန်ဒေါ်လာ ၁.၃၅၁သန်း
အခြေခံ အဆောက်အအုံ တည်ဆောက်ခြင်း	စက်ရုံ အဆောက်အအုံ (၂)၊ ဝန်ထမ်းနေအိမ် (၁)၊ မီးစက်ရုံ (၁)၊ လုံခြုံရေးဂိတ် (၁)၊ ရေလှောင်ကန် (၁)၊ ကားရပ်နားရန်နေရာ၊ လျှပ်စစ်မီးလှိုင်း၊ မီးစက်၊ ကိုယ်ပိုင်မြေအောက်ရေ၊ ရေသန့်စင်စနစ်၊
စက်ပစ္စည်းများ တပ်ဆင်ခြင်း	China မှ တင်သွင်းလာသော စက်ပစ္စည်းများ တပ်ဆင်ခြင်း
နည်းပညာ	သံမဏိဘောင်များသုံး၍ အဆောက်အအုံကို ဖွဲ့စည်းတည်ဆောက်ခြင်း
တည်ဆောက်ခြင်းလုပ်ငန်းစဉ်	မြေနေရာရှင်းလင်းခြင်း၊ အခြေခံ အဆောက်အအုံ တည်ဆောက်ခြင်း၊ စက်ပစ္စည်းများ တပ်ဆင်ခြင်း၊ စက်ပစ္စည်းများ စမ်းသပ်စစ်ဆေးခြင်း
ကုန်ကြမ်းနှင့် အရင်းအမြစ်	အခြေခံ အဆောက်အအုံ တည်ဆောက်ရန် သံမဏိဘောင် အရွယ်အမျိုးမျိုးကို နိုင်ငံခြားမှတင်သွင်းသည်။ ရုံးသုံး ပစ္စည်းကရိယာများကို ပြည်တွင်းမှ ဝယ်ယူသည်။
ထွက်ရှိ အမှိုက်	ဆောက်လုပ်ရေး အထွေထွေ အမှိုက်များ၊ စွန့်ပစ်ရေ
ထုတ်လွှတ်ခြင်း	မီးခိုး ဓါတ်ငွေ့များ၊ အမှုန်များ၊ ဖုန်များ၊
အနှောင့်အယှက်များ	ဆူညံသံ

၂၀၁၉ တွင် မြေငှားခဲ့သည်။ ဒီဇင်ဘာ ၂၀၁၉ တွင် ဆောက်လုပ်ရေးလုပ်ငန်းများ စတင်ဆောင်ရွက်ခဲ့သည်။ အဓိက ကျသော စက်ပစ္စည်းများကို မေလ ၂၀၂၀ တွင် စတင် ဝယ်ယူခဲ့သည်။

B. တည်ဆောက်ရေးကာလ

အမျိုးအစား	ဖော်ပြချက်
နည်းပညာ	နိုင်ငံခြားမှ စာချုပ်၍မှာယူသော လူသုံးလျှပ်စစ်ပစ္စည်းများကို အလိုအလျောက်စက်ယန္တရားများ ဖြင့် ထုတ်လုပ်၍ နိုင်ငံခြားမှမှာယူသူထံ တင်ပို့ခြင်း
ဝန်ထမ်းအင်အား	၁၈၀ - ၂၅၀ ဦး
CMP လုပ်ငန်းစဉ်	နိုင်ငံခြားမှ စာချုပ်၍မှာယူသော လူသုံးလျှပ်စစ်ပစ္စည်းများ အတွက် ကုန်ကြမ်းကို Taiwan, China, Malaysia, India နိုင်ငံတို့မှ တင်သွင်းသည်။ စာချုပ် အမှာစာ အရ လူသုံးလျှပ်စစ်ပစ္စည်းများ ထုတ်လုပ်သည်။ Manufacturing of Consumer Electronic on Contract ထုတ်လုပ်ထားသည့် လူသုံးလျှပ်စစ်ပစ္စည်းများကို စာချုပ် အမှာစာ အရ။ USA, Japan, Europe Countries, Malaysia, Singapore, Korea and all Asia Countries သို့ တင်ပို့သည်
ကုန်ထုတ်လုပ်ငန်းစဉ်	အလိုအလျောက်စက်ယန္တရားများသုံး၍ ကွန်ပျူတာကြိုးထုတ်လုပ်ခြင်း ဝါယာကြိုးမျှင်ထုတ်ခြင်း - ကြေးဝါယာကြိုးမျှင်ထုတ်ခြင်း - ဂဟေဆက်ခြင်း - ပုံသွင်းခြင်း - အရည်အသွေးစစ်ဆေးခြင်း - ထုပ်ပိုးခြင်း အလိုအလျောက်စက်ယန္တရားများသုံး၍ တယ်လီဖုန်းကြိုးထုတ်လုပ်ခြင်း ဝါယာကြိုးမျှင်ထုတ်ခြင်း - ပလပ်ခေါင်းတွင်းဝါယာကြိုးထည့်သွင်းခြင်း - ခိုင်မြဲစေရန် ဖိညှပ်ခြင်း - အရည်အသွေးစစ်ဆေးခြင်း - ထုပ်ပိုးခြင်း

အမျိုးအစား	ဖော်ပြချက်
ကုန်ကြမ်းနှင့် အရင်းအမြစ်	အောက်ပါ ကုန်ကြမ်းများကို Taiwan, China, Malaysia, India နိုင်ငံတို့မှ တင်သွင်းသည်။ Brass copper roll, Iron roll, Phosphor copper roll, Stainless steel roll, ABS, ABS+PE, AS, HDPE, HIPS, PC, PE, PET, PMMA, POM, PP, PS, PVC, TPE, Modular Plug, Material terminal, Computer Plug
ပြုပြင်ထိန်းသိမ်းရေး	လုပ်ငန်းသုံး ပစ္စည်းများ ပြုပြင်ထိန်းသိမ်းခြင်း
ထွက်ရှိ အမှိုက်	စက်ရုံ အထွေထွေ အမှိုက်၊ ဝန်ထမ်းများစွန့်ပစ် အမှိုက်၊ မီးဖိုချောင်အမှိုက်၊ စွန့်ပစ်ရေ
ထုတ်လွှတ်ခြင်း	မီးခိုး ဓာတ်ငွေ့များ၊ အမှုန်များ၊
အနှောင့်အရှက်များ	ဆူညံသံ (မီးစက်)

CMP လုပ်ငန်းစဉ်ကို ဒီဇင်ဘာ ၂၀၂၀ တွင် စတင်သည်။

C. ရပ်ဆိုင်းကာလ

Category	Description
စီမံကိန်း ရပ်တန့် ထွက်ခွာခြင်း လုပ်ငန်းစဉ်	Land ownership clearance, Building and Facility deinstallation, Decommissioning, Compensation to project staff & workers, close-out reporting, fade-out of project CSR activities
ထွက်ရှိ အမှိုက်	အထွေထွေအမှိုက်၊ စွန့်ပစ်ရေ
ထုတ်လွှတ်ခြင်း	မီးခိုး ဓာတ်ငွေ့များ၊ အမှုန်များ၊ ဖုန်များ၊
အနှောင့်အရှက်များ	ဆူညံသံ

1.3.6 အခြားဆောင်ရွက်နိုင်သည့်နည်းလမ်း

တည်နေရာ၊ ရင်းနှီးမြှုပ်နှံမှုအမျိုးအစား၊ ဈေးကွက်အခြေအနေ စသည်တို့ကို အကျုံးဝင်သည့် အဆိုပြုထားသော စီမံကိန်းအတွက် ဒေသတွင်း အရင်းအနှီးမြှုပ်နှံရန် ပြင်ဆင်သည့် အဆင့်မှစတင်၍ အဆိုပြုထားသော ပရောဂျက်အတွက် ရင်းနှီးမြှုပ်နှံမှုမှ ကျယ်ကျယ်ပြန့်ပြန့် လေ့လာမှုကို ပြုလုပ်ခဲ့ပါသည်။ အဆောက်အဦမှာ ဆောက်လုပ်ပြီးစီးပြီး ဖြစ်သဖြင့် ဆောက်လုပ်ခြင်းအတွက် အခြားဆောင်ရွက်နိုင်သည့် နည်းလမ်းအား ထပ်မံဆောင်ရွက်နိုင်ခြင်းမရှိပါ။

အဆောက်အဦဒီဇိုင်း၊ ဆောက်လုပ်မှုနှင့် တပ်ဆင်မှုလုပ်ငန်းစဉ်၊ စီမံကိန်းကာလနှင့် တရားဝင်ခွင့်ပြုထားသည့် ပရောဂျက်အဆိုပြုချက်အတိုင်း ဆက်လက်ဆောင်ရွက်ရန် အဆိုပြုထားသော စီမံကိန်းရည်ရွယ်ချက်များအတွက် အခြားရွေးချယ်စရာမရှိသေးပါ။

တရားဝင်ခွင့်ပြုထားသော မူလပရောဂျက်အဆိုပြုချက်မှလွဲ၍ ပရောဂျက်ကာလတလျှောက် အပြောင်းအလဲများ လိုအပ်ပါက အခြားရွေးချယ်စရာ/ပြောင်းလဲမှုများကို တင်ပြပါ မည်။

1.3.7 ရွေးချယ်ထားသည့်နည်းလမ်း

စီမံကိန်းတည်နေရာ၊ ဈေးကွက်လိုအပ်ချက်၊ ဝန်ဆောင်ပေးနိုင်မှု၊ စက်ပစ္စည်းကိရိယာများ၏ စွမ်းဆောင်ရည်၊ ထောက်ပံ့ပို့ဆောင်ရေးနှင့်ငွေပေးချေခြင်း၊ ရင်းနှီးမြှုပ်နှံမှု နှင့် ပြန်လည်ရရှိမည့် အကျိုးအမြတ် တို့အပေါ် မူတည်၍ လက်တွေ့ကျသည့် နည်းလမ်းအားရွေးချယ်ထားပါသည်။

1.4 စီမံကိန်းအနီး ပတ်ဝန်းကျင်ဆိုင်ရာ အခြေခံအချက်အလက်များ

အဆိုပြုထားသော စီမံကိန်း၏ အခြေခံပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်ကို အောက်တွင် အတိုချုံး၍ ဖော်ပြထားပြီး အသေးစိတ်မှာ အစီရင်ခံစာ အခန်း - ၄ တွင် ပါရှိပါသည် -

- ရုပ်ပိုင်းဆိုင်ရာအကြောင်းအချက်များ
- ဇီဝပိုင်းဆိုင်ရာအကြောင်းအချက်များ
- လက်ရှိပတ်ဝန်းကျင်အရည်အသွေးဆိုင်ရာအကြောင်းအချက်များ
- လူမှုဆိုင်ရာအကြောင်းအချက်များ

1.4.1 ဧရိယာနယ်နိမိတ်သတ်မှတ်ခြင်း

စီမံကိန်းတည်ရှိရာ၊ စီမံကိန်းဧရိယာ ၁.၄ ဧက (ကိုဩဒိနိတ်အမှတ် 17°16'23.84"N, 96°27'33.80"E)မှ မီတာ ၁၀၀ အချင်းဝက်အတွင်းရှိ ဧရိယာနယ်နိမိတ်သတ်မှတ်၍ လက်ရှိ အခြေခံ လူမှု-ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များကို လေ့လာသွားပါမည်။

1.4.2 နည်းလမ်းနှင့် ရည်ရွယ်ချက်

ကွင်းဆင်း လေ့လာခြင်း၊ ဒေသခံများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း၊ အင်တာနက်မှ ဒေသဆိုင်ရာ အချက်အလက်များစုဆောင်း ရယူခြင်း၊ မှန်ကန်သော အချက်အလက်များ ဖြစ်စေရန် တိုက်ဆိုင်စစ်ဆေး အတည်ပြုပြီး လက်ရှိ အခြေခံ လူမှု-ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များကို ရှာဖွေဖော်ထုတ်၍ အဆိုပြုစီမံကိန်းအတွက် အခြေခံပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက် ပြုစုရာတွင် ကိုးကား အသုံးပြုသွားပါမည်။

1.4.3 လက်ရှိပတ်ဝန်းကျင်အရည်အသွေးဆိုင်ရာအကြောင်းအချက်များ

၂၀၂၄ ခုနှစ် မေလ ၉ ရက်နေ့တွင် လက်ရှိပတ်ဝန်းကျင်အရည်အသွေး (မြေအရည်အသွေး၊ ရေအရည်အသွေး၊ လေထုအရည်အသွေး၊ ဆူညံသံထွက်ရှိမှု စသည်တို့) ကို သိရှိနိုင်ရန် စီမံကိန်းဧရိယာတွင် ကွင်းဆင်း လေ့လာခဲ့ပါသည်။ ပတ်ဝန်းကျင်အရည်အသွေးစောင့်ကြည့်ရေးအစီအစဉ်အဓိကရည်ရွယ်ချက်မှာ လက်ရှိပတ်ဝန်းကျင်၏ အခြေခံကိန်းဂဏန်းဆိုင်ရာအချက်အလက်များကို မှတ်တမ်းတင်ထားပြီး၊ စီမံကိန်းလုပ်ဆောင်ချက်ကြောင့် အနီးပတ်ဝန်းကျင်အပေါ်အကျိုးသက်ရောက်နိုင်မှုအား တွက်ချက်နိုင်ရန် ဖြစ်သည်။ လက်ရှိပတ်ဝန်းကျင်အရည်အသွေး (ရေ၊ လေ၊ ဆူညံသံ) တို့သည် အထွေထွေလမ်းညွှန်ချက်များအတွင်း ရှိကြောင်း တွေ့ရှိရပါသည်။

1.4.3.1 မြေအရည်အသွေး

Table.: Soil Interpretation Results for LTICL Soil Sample

Sr. No.	Test	Interpretation Result
1	pH	Extremely Acid
2	EC	Very Low
3	Texture	Sandy Loam
4	Organic Matter	Very Low
5	Total N	Very Low
6	Exchangeable Cations (Ca^{2+})	Low
7	Exchangeable Cations (Mg^{2+})	Medium
8	Exchangeable Cation (K^{+})	Very Low
9	P	Low
10	K_2O	Low

1.4.3.2 ရေအရည်အသွေး

Table.:World Health Organization Drinking Water guideline value (Geneva-1993)

Location – One point at ground water Tank ($13^{\circ} 5'2.78''\text{N } 98^{\circ}16'44.70''\text{E}$)

Test	Unit	Maximum Permissible Limit	Ground Water Value
Color	TCU	15	Nil
Turbidity	NTU	5	4
Total Dissolved Solvent	mg/l	1000	30
Chloride	mg/l	250	3
Lead	mg/l	0.01	-
Total Hardness (as CaCO_3)	mg/l	500	20

Iron	mg/l	0.3	0.29
pH	S.U.	6.5 – 8.5	7.3
Sulphate (as SO ₄)	mg/l	500	Nil
Zinc	mg/l	5	-
Calcium	mg/l	200	-
Magnesium	mg/l	150	-
Nitrate	mg/l	50	-
Arsenic (As)	mg/l	≤0.01	Nil
Fluoride	mg/l	1.5	0.3
Total Solids	mg/l	1500	42

Table.: Wastewater, Storm water Runoff, Effluent and Sanitary Discharge (General)

Location – One point near wastewater treatment system effluent (13° 5'2.78"N 98°16'44.70"E)

Parameter	Unit	Guideline Value	Wastewater Value
5-day BOD	mg/l	50	8
COD	mg/l	250	32
pH	S.U.	6-9	7.4
Color	TCU		5
Turbidity	NTU		13
Conductivity	μS/cm		88
Total Solids	mg/l		54
Phosphate	mg/l		4.6
Salinity	ppt		0.1
Temperature (°C)	(°C)		25
Nitrate (N.NO ₃)	mg/l		4.0
Dissolved Oxygen (DO)	mg/l		6.8

1.4.3.3 လေထုအရည်အသွေး**Table.: Air Emissions (General)**

Date - May 2024				
Location – One point Near Generator Room and Factory Building within Project Area (13° 7'35.20"N 98°16'46.50"E)				
Sixth Monthly (Twice a Year) (Dec 2023 – May 2024)		EQEG	Monitoring Results	Note (Status of Compliance with EQEG)
PM _{2.5} (μg/m ³)	1-year	10	-	Pass (24- hour measuring result))
	24-hour	25	21.46	

PM ₁₀ (µg/m ³)	1-year	20	-	Pass (24- hour measuring result))
	24 – hour	50	32.81	
SO ₂ (ppb)	24 – hour	20	0	Pass (both 24- hour and 10 min measuring result))
	10- minute	500	-	
NO ₂ (ppb)	1-year	40	-	Pass (1- hour measuring result))
	1- hour	200	38.48	
Ozone	8-hour daily maximum	100	0	Pass
CO (ppb)	-	-	1.67	-
RH (%)	-	-	51.67	-
T (°C)	-	-	33.38	-

1.4.3.4 ဆိုက်သံ

Table:Noise Emission Level

Noise Level Measurement

Date	Time	Average Result of Project Area	EQEG Standard		Weight	Day/Night
			Daytime	Nighttime		
9.5.2024	09:05:30- 10:05:00	52	55	45	A	Day
	10:05:30-11:05:00	52	55	45	A	Day
	11:05:30-12:05:00	52	55	45	A	Day
	12:05:00-13:05:00	54	55	45	A	Day
	13:05:30-14:05:00	56	55	45	A	Day
	14:05:30-15:05:00	55	55	45	A	Day
	15:05:30-16:05:00	55	55	45	A	Day
	16:05:30-17:05:00	35	55	45	A	Day
	17:05:30-18:05:00	33	55	45	A	Day
	18:05:30-19:05:00	35	55	45	A	Day
	19:05:30-20:05:00	32	55	45	A	Day
	20:05:30-21:05:00	31	55	45	A	Day
	21:05:30-22:05:00	30	55	45	A	Day
	22:05:30-23:05:00	32	55	45	A	Night
	23:05:30-00:05:00	30	55	45	A	Night
10.5.2024	00:05:00-01:05:00	35	55	45	A	Night
	01:05:30-02:05:00	35	55	45	A	Night
	02:05:30-03:05:00	37	55	45	A	Night
	03:05:30-04:05:00	35	55	45	A	Night

	04:05:30-05:05:00	33	55	45	A	Night
	05:05:30-06:05:00	39	55	45	A	Night
	06:05:30-07:05:00	39	55	45	A	Night
	07:05:30-08:05:00	37	55	45	A	Day
	08:05:30-09:05:00	35	55	45	A	Day

1.4.4 ရုပ်ပိုင်းဆိုင်ရာအကြောင်းအချက်များ

ပဲခူးမြို့နယ်သည် ပဲခူးတိုင်းဒေသကြီး ပဲခူးမြစ်ကိုအခြေခံ၍ တည်ရှိပြီး၊ ဧရိယာ (၇၁၇၈၆၁)ဧက (၁၁၂၁.၆၆)စတုရန်းမိုင် ကျယ်ဝန်းပါသည်။ ပဲခူးမြစ်သည် ပဲခူးရိုးမပေါ်ရှိ ဆင်နှာမောင်းတောင် တွင် မြစ်ဖျားခံ၍ တောင်ဘက်ရှိ ရန်ကုန်မြစ်အတွင်းသို့ စီးဝင်ပါသည်။ ပဲခူးမြို့နယ်သည် ပင်လယ်ရေပြင်အထက် ပျမ်းမျှအမြင့် (၃၁) ပေ ဌာတည်ရှိပါသည်။

ပဲခူးမြို့နယ်သည် ပူအိုက်စွတ်စိုသော ရာသီဥတုရှိပြီး အမြင့်ဆုံးအပူချိန်မှာ (၃၉.၈၀) ဒီဂရီစင်တီဂရိတ်နှင့် အနိမ့်ဆုံးအပူချိန်မှာ (၁၆.၄၀) ဒီဂရီစင်တီဂရိတ် ဖြစ်သည်။ နှစ်အလိုက် ဖြစ်ပေါ်ခဲ့သော မိုးရေချိန်နှင့် အပူချိန်မှာ အောက်ပါအတိုင်း ဖြစ်ပါသည်။

စဉ်	ခုနှစ်	မိုးရေချိန်		အပူချိန်	
		မိုးရွာရက်	စုစုပေါင်း မိုးရေချိန် (လက်မ)	နွေရာသီ (°C)	ဆောင်းရာသီ (°C)
၁	၂၀၁၉-၂၀၂၀	၁၂၄	၁၀၇.၆၈	၄၂.၂	၁၄.၀
၂	၂၀၂၀-၂၀၂၁	၁၁၅	၉၅.၁၆	၃၄.၁	၂၂.၃
၃	၂၀၂၁-၂၀၂၂	၁၂၉	၁၀၀.၉၁	၃၂.၁	၂၁.၂
၄	၂၀၂၂-၂၀၂၃	၃၇	၂၃.၉၄	၄၁.၂	၁၀.၂

ပဲခူးမြို့နယ်သည် မြေနိမ့်ပိုင်းဒေသအတွင်းတွင်တည်ရှိသဖြင့် မုန်တိုင်းမိုးကြောင့် မြစ်ရေ ကြီးခြင်း ဘေးအန္တရာယ် ကျရောက်လေ့ရှိပါသည်။ ပဲခူးမြို့နယ်အတွင်း ပဲခူးမြစ်၏ စိုးရိမ်ရေမှတ် (၈၈၀)စင်တီမီတာ ဖြစ်ပြီး သဘာဝဘေးအန္တရာယ် ကျရောက်မှုမှာ ၂၀၂၂ခုနှစ် ဇန်နဝါရီလ (၁)ရက်မှ ၂၀၂၂ခုနှစ် ဒီဇင်ဘာလ (၃၁)ရက် အထိ မုန်တိုင်းဘေး (၅)ကြိမ်၊ ဆူနာမီဘေး (-)ကြိမ်၊ ငလျင်ဘေး (-) ကြိမ်၊ ရေဘေး (-)ကြိမ်၊ မီးဘေး (၈)ကြိမ်၊ မိုးကြိုး (၁)ကြိမ် ရင်ဆိုင်ကြုံတွေ့ခဲ့ရပါသည်။

1.4.5 ဇီဝပိုင်းဆိုင်ရာအကြောင်းအချက်များ

ပဲခူးမြို့နယ်အတွင်း ပေါက်ရောက်သည့် သဘာဝပေါက်ပင်များမှာ ကျွန်း၊ ပျဉ်းကတိုး၊ ပိတောက်၊ သစ်ယာ၊ အင်ကြင်း၊ သင်္ကန်း၊ တမလန်း၊မန်ကျည်း၊ တမာ၊ ကုက္ကို၊ မယ်ဇေလီ၊ ထင်းရှူး၊ စသည်တို့

ဖြစ်ပါသည်။ ပဲခူးမြို့နယ်တွင် တွေ့ရှိရသော တောရိုင်းတိရစ္ဆာန်များမှာ ဆင်၊ ကျားသစ်၊ တောဝက်၊ ဝက်ဝံ၊ တောကွဲ၊ တောင်ဆိတ်၊ တောကြောင်၊ မျောက်အမျိုးမျိုး စသည်တို့ ဖြစ်ပါသည်။

ပဲခူးမြို့နယ်တွင် သစ်တောကြိုးဝိုင်း (၈)ခု ရှိပြီး ဧရိယာ (၃၈၁၀၄၂)ဧက 17°36' သဘာဝ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနယ်မြေအဖြစ် ၁၉၈၆ ခုနှစ်တွင် သတ်မှတ်ခဲ့သည့် မိုးယွန်းကြီးအင်းသည် ၄၀ စတုရန်းမိုင် ကျယ်ဝန်းပြီး ပဲခူးမြို့နယ်အတွင်း မြောက်လတ္တီတွဒ် 17°30' နှင့် 17°36' အရှေ့လောင်ဂျီတွဒ် 96°33' and 96°39' တွင် တည်ရှိပါသည်။

အဆိုပြုထားသောစီမံကိန်းဧရိယာသည် ဇီဝမျိုးစုံမျိုးကွဲ အကာအကွယ်ပေးထားသော နေရာများ အတွင်း၌ မတည်ရှိပဲ သစ်တောကြိုးဝိုင်းများ နှင့် မိုးယွန်းကြီးအင်း သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်း ရေး နယ်မြေတို့နှင့်လည်း ဝေးကွာပါသည်။

1.4.6 လူမှုစီးပွားဆိုင်ရာအကြောင်းအချက်များ

ပဲခူးမြို့နယ်သည် ပဲခူးတိုင်းဒေသကြီးအတွင်း တည်ရှိပြီး စီးပွားရေးအရ အချက်အခြာကျသော မြို့နယ်တစ်ခုဖြစ်ပါသည်။ မြို့နယ်အတွင်းရှိ ဒေသခံပြည်သူလူထုသည် စိုက်ပျိုးရေးလုပ်ငန်း၊ ဝန်ဆောင်မှုလုပ်ငန်းကို အဓိက လုပ်ကိုင်ဆောင်ရွက်ကြပါသည်။ ပဲခူးမြို့နယ်သည် ကုန်းလမ်း၊ ရေလမ်းကြောင်း၊ လမ်းများဆုံရာ လမ်းမပေါ်တွင် တည်ရှိ၍ လမ်းပန်းဆက်သွယ်ရေး ကောင်းမွန်သော မြို့နယ်ဖြစ်ပါသည်။ မြို့နယ်၏ အဓိကထွက်ကုန်မှာ ဆန်စပါးဖြစ်ပြီး ရန်ကုန်တိုင်းဒေသကြီးသို့ အများဆုံးတင်ပို့ရောင်းချပါသည်။

1.4.6.1 အသက်မွေးဝမ်းကျောင်းလုပ်ငန်းအလိုက် အလုပ်လုပ်သူဦးရေ

ပဲခူးမြို့နယ်၏ ၂၀၂၂-၂၀၂၃ နှစ် အတွက် ကုန်ထုတ်လုပ်ငန်း၊ ဝန်ဆောင်မှုလုပ်ငန်း၊ ကုန်သွယ်လုပ်ငန်း များမှ အသားတင်ဝင်ငွေ (၉၅၇,၂၄၆.၁)သန်း ကျပ်၊ တဦးချင်း အသားတင်ဝင်ငွေ (၃,၃၅၂,၇၅၈) ကျပ် ဖြစ်ပါသည်။ ပဲခူးမြို့နယ်၏ အလုပ်လက်မဲ့ ရာခိုင်နှုန်းမှာ ၄.၉၅ ရာခိုင်နှုန်း ဖြစ်ပါသည်။ ပဲခူးမြို့နယ်တွင် အသက်မွေးဝမ်းကျောင်းလုပ်ငန်းအလိုက် အလုပ်လုပ်သူဦးရေကို အောက်တွင် ဖော်ပြထားပါသည်။

Employment

Sr. No.	Category	Quantity
1	Government	4602
2	Services	3651
3	Agricultural	21604
4	Farming	4485
5	Trading	27684
6	Industrial	27279
7	Fishing	4568
8	Random	39429

9	Others	34888

1.4.6.2 အခြေခံအဆောက်အအုံ၊ နေထိုင်မှုအခြေအနေ၊ အများပြည်သူဝန်ဆောင်မှုလုပ်ငန်း၊ နှင့် သဘာဝအရင်းအမြစ်

မြေအသုံးချမှု

၂၂။ ပဲခူးမြို့နယ်၏မြေအမျိုးအစားအလိုက် အသုံးချထားသည့်ကေ အားအောက်ပါအတိုင်းဖော်ပြအပ်ပါသည်-

စဉ်	မြေအမျိုးအစား	ဧရိယာ (ဧက)
၁	အသားတင်စိုက်ပျိုးမြေဧရိယာပေါင်း	၂၀၄၂၀၅
	(က) လယ်မြေဧရိယာ	၁၀၃၇၉၄
	(ခ) ယာမြေ	-
	(ဂ) ကိုင်း/ကျွန်းမြေ	၅၈၈၂
	(ဃ) ဥယျာဉ်မြေ	၉၄၄၉၂
	(င) ခနီ	၃၇
၂	လှုပ်ထားမြေဧရိယာပေါင်း	၂၅၈
	(က) လယ်မြေဧရိယာ	၂၅၈
	(ခ) ယာမြေ	-
	(ဂ) ကိုင်း/ကျွန်းမြေ	-
	(ဃ) ဥယျာဉ်မြေ	-
	(င) ခနီ	-
၃	စားကျက်မြေ	၅၁၈၉
၄	စက်မှုလုပ်ငန်းသုံးမြေ	၂၉၆၁
၅	မြို့မြေ	၁၂၁၉၃
၆	ရွာမြေ	၈၈၀၇
၇	အခြားမြေ	၉၁၀၉
၈	ကြိုးဝိုင်း/ကြိုးပြင်ကာကွယ်တောဧရိယာ	၃၉၅၅၃၄
၉	တောရိုင်း	-
၁၀	မြေရိုင်း	၉၄၅
၁၁	စိုက်ပျိုးခြင်းမပြုနိုင်သောဧရိယာ	၇၈၆၆၀
	စုစုပေါင်း	၇၁၇၈၆၁

1.4.6.3 လူဦးရေ

ပဲခူးမြို့နယ်တွင် နေထိုင်သူ စုစုပေါင်း (၄၆၂,၇၄၃) ဦး အဓိက လူမျိုးကြီး (၈)မျိုး (ကချင်၊ ကယား၊ ကရင်၊ ချင်း၊ ဗမာ၊ မွန်၊ ရခိုင်၊ ရှမ်း)တွင် ဗမာလူမျိုးအများဆုံး (၄၂၁,၄၄၄)ဦး နေထိုင်ပါသည်။ အိမ်ထောင်စု စုစုပေါင်း (၁၁၆၁၈၇) ဖြစ်ပြီး အမျိုးသားနှင့် အမျိုးသမီးအချိုးသည် (၁:၁.၁) ဖြစ်သည်။

1.4.6.4 ကျန်းမာရေး

ပဲခူးမြို့နယ်အထွေထွေ အုပ်ချုပ်ရေးဌာန၏ မှတ်တမ်းအရ ၂၀၂၃ တွင် ပဲခူးမြို့နယ်၌ ၉,၆၁၂ ဦး မွေးဖွား၍ ၆၄၈ ဦး သေဆုံးခဲ့သည်။ ပဲခူးမြို့နယ်၌ ဝမ်းပျက်ဝမ်းလျှောရောဂါ အများဆုံး ဖြစ်ပွားသည်။

1.4.6.5 ဘာသာရေးဆိုင်ရာနှင့် သမိုင်းဝင် ထင်ရှားသော အဆောက်အဦးများ

ပဲခူးမြို့နယ်ရှိ လူအများစုသည် ဗုဒ္ဓဘာသာဝင်များ ဖြစ်ကြသည်။ မှတ်တမ်းဝင် ဘုရား(၁၀)၊ စေတီ(၆၈)၊ ပုထိုး(၇)၊ ဘုန်းကြီးကျောင်း(၆၂၀)၊ သီလရှင်ကျောင်း(၁၀၆)၊ ဓမ္မာရုံ(၂၀) တည်ရှိသည်။ ထင်ရှားသော ဘုရား(၁၄)၊ စေတီ(၂) ရှိပါသည်။ ဗုဒ္ဓဘာသာအပြင် အခြား ဘာသာဝင်များ ကိုးကွယ်ရာ အဆောက်အအုံများမှာ ခရစ္စယာန်ဘုရားကျောင်း (၂၀)၊ အစ္စလာန်ဗလီ (၁၄)၊ ဟိန္ဒူဘုရားကျောင်း (၂၉)၊ တရုတ်ဘုရားကျောင်း (၈) ဖြစ်ပါသည်။

ပဲခူးမြို့နယ်၏ နန်းတော်ရာရပ်ကွက်တွင် တည်ရှိသော ကမ္ဘောဇသေဒီရွှေနန်းတော်သည် ရှေးဟောင်းသမိုင်းမှတ်တမ်းဝင် ယဉ်ကျေးမှုအမွေအနှစ်တခုဖြစ်၍ ယင်းတည်ရှိရာနေရာကို ရှေးဟောင်းသမိုင်းဝင် ထင်ရှားသော ယဉ်ကျေးမှုအမွေအနှစ်တည်ရှိရာနေရာအဖြစ် သတ်မှတ် ကာကွယ်ထားပါသည်။

1.5 သက်ရောက်မှုများနှင့်ဘေးအန္တရာယ်များဆန်းစစ်ခြင်း နှင့် လျော့ကျစေရေး အစီအမံများ

သက်ရောက်မှုများနှင့်ဘေးအန္တရာယ်များဆန်းစစ်ခြင်း နှင့် လျော့ကျစေရေးအစီအမံများ အသေးစိတ် အား အခန်း (၅) ၌ ဖော်ပြထား ပါသည်။

1.5.1 သက်ရောက်မှုများနှင့်ဘေးအန္တရာယ်များဆန်းစစ်ခြင်းနည်းစနစ်

1.5.1.1 သက်ရောက်မှု အဓိပ္ပါယ်ဖွင့်ဆိုချက်

လုပ်ဆောင်မှုတစ်ခုကြောင့် (သို့မဟုတ်) အဖြစ်အပျက်တစ်ခုကြောင့် ပတ်ဝန်းကျင်တွင် ပြောင်းလဲမှုတစ်ခု ဖြစ်ခြင်း (သို့မဟုတ်) သတ်မှတ်ထားသော ပတ်ဝန်းကျင်ဆိုင်ရာစံချိန်စံညွှန်းတစ်ခုကိုမလိုက်နာခြင်းကို ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုအဖြစ် သတ်မှတ်သည်။ သက်ရောက်မှုသည် ကောင်းသောသက်ရောက်မှု (သို့မဟုတ်) မကောင်းသောသက်ရောက်မှုနှင့် လက်တွေ့သက်ရောက်မှု (သို့မဟုတ်) ဖြစ်နိုင်သည့် အလားအလာရှိသောသက်ရောက်မှု ဟု ခွဲခြားနိုင်ပြီး အောက်တွင် ဖော်ပြထားပါသည်။

- F – Frequency of impact occurrence;
- L – Likelihood of the impact occurring;
- M – Magnitude of size of the impact in the relation to set standards;
- E – Extent or spatial extent of the impact;
- D – Duration of the impact;
- S – Significance - overall importance of the impact

1.5.1.2 သက်ရောက်မှု ဖော်ထုတ်သတ်မှတ်ခြင်းနှင့် ဆန်းစစ်ခြင်း

သက်ရောက်မှုများဖော်ထုတ်ပြီးပါက မကောင်းသောသက်ရောက်မှုများ လျော့ကျစေရေးအစီအမံများ လုပ်ဆောင်နိုင်စေရန် သိသာထင်ရှားသည့် ပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုကို ဆန်းစစ်ပါသည်။ ဆန်းစစ်ခြင်းတွင် အောက်ပါ အဆင့်များ ပါဝင်ပါသည်။

အဆင့် ၁: လုပ်ဆောင်မှုများ ဖော်ထုတ်သတ်မှတ်ခြင်း

အဆင့် ၂: ဘေးအန္တရာယ်များ ဖော်ထုတ်သတ်မှတ်ခြင်း

အဆင့် ၃: သက်ရောက်မှု ဖော်ထုတ်သတ်မှတ်ခြင်း

အဆင့် ၄: သိသာထင်ရှားသည့် သက်ရောက်မှုကို ဆန်းစစ်ခြင်း

သက်ရောက်မှုတစ်ခုချင်းစီကို ဆန်းစစ်၍ ပြင်းအားပမာဏကို (သိသာထင်ရှားသော/ အရေးပါသော/ မြင့်မားသော/ အလယ်အလတ်ကျသော/ အနည်းငယ်ရှိသော/ အနည်းဆုံး) သတ်မှတ်ပါသည်။

1.5.2 သက်ရောက်မှု ဖော်ထုတ်သတ်မှတ်ခြင်းနှင့် ဆန်းစစ်ခြင်း

စီမံကိန်းလုပ်ဆောင်ရာမှ ထွက်ပေါ်လာနိုင်သောဘေးအန္တရာယ်များကြောင့် သက်ရောက်မှု ဖော်ထုတ်သတ်မှတ်ခြင်းနှင့် ဆန်းစစ်ခြင်း အသေးစိတ်အား အခန်း (၅)၌ ဖော်ပြထား ပါသည်။

1.5.2.1 သက်ရောက်မှု ဖော်ထုတ်သတ်မှတ်ခြင်းနှင့် ဆန်းစစ်ခြင်း

စီမံကိန်းလုပ်ဆောင်ရာမှ ထွက်ပေါ်လာနိုင်သောဘေးအန္တရာယ်များကြောင့် အလားအလာရှိသည့် သက်ရောက်မှုများနှင့် နှင့် သက်ရောက်မှုများ ဖော်ထုတ် သတ်မှတ်ခြင်းအား ဖော်ပြထား ပါသည်။

စီမံကိန်း	အလားအလာရှိသည့် သက်ရောက်မှု	ဖော်ထုတ် သတ်မှတ်သည့်သက်ရောက်မှု
Development		
Location	Social, Biological, Historical, Cultural,	No
Design	Physical, Historical, Cultural,	No
Construction	Physical, Environmental, Climate Change, Social, Health	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation
Installation	Physical, Environmental, Climate Change, Social, Health	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation
Operation		
Operation	Physical, Environmental, Climate Change, Social, Health	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation
Maintenance	Physical, Environmental, Climate Change, Social, Health	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation
Abandonment		
Deinstallation	Physical, Residual Environmental, Climate Change, Health	Residual Environmental
Closeout of project	Social	Social

လက်ရှိ ပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်

စီမံကိန်း လည်ပတ်ကာလ လက်ရှိ ပတ်ဝန်းကျင်ဆိုင်ရာ (လေ၊ စွန့်ပစ်ရေ၊ ဆူညံသံ၊ စသည်) အရည်အသွေးတို့၏ တိုင်းတာရရှိသော ရလဒ်များသည် NEQEG အထွေထွေလမ်းညွှန်ချက်များ၏ တန်ဖိုးများအတွင်း ရှိနေသည်ကိုတွေ့ရှိရ၍ စီမံကိန်း ပုံမှန်လည်ပတ်နေသည့် ဆောင်ရွက်မှုများသည် ပတ်ဝန်းကျင်ကို သက်ရောက်မှု မရှိကြောင်း သုံးသပ်နိုင်သည်။ (အသေးစိတ် အခန်း (၄) တွင်ကြည့်ပါ)

လက်ရှိ လူမှုစီးပွားရေးဆိုင်ရာ အချက်အလက်

စီမံကိန်းနှင့် ပတ်သက်၍ ဒေသခံများကတိုင်ကြားခြင်း မြို့နယ်၊ ရပ်ကွက်အုပ်ချုပ်ရေး အဖွဲ့အစည်းများက အရေးယူဆောင်ရွက်ခြင်း မှတ်တမ်းများ မရှိပါ။ (အသေးစိတ် အခန်း (၈) တွင်ကြည့်ပါ) LTICL သည် လိုအပ်ပါက CSR အစီအစဉ်များလုပ်ဆောင်ခြင်းဖြင့် မြို့နယ်၊ ရပ်ကွက်အုပ်ချုပ်ရေး အဖွဲ့အစည်းတို့နှင့် ပူးပေါင်း၍ ဒေသခံတို့၏ စဉ်ဆက်မပြတ် ဖွံ့ဖြိုးရေးလုပ်ငန်းများတွင် ကူညီပံ့ပိုးသွားပါမည်။ (အသေးစိတ် အခန်း (၉) တွင်ကြည့်ပါ)

1.5.2.2 စီမံကိန်း၏ ပုံစံ၊ အပြင်အဆင်၊ လုပ်ငန်းလုပ်ဆောင်ခြင်း၊ စီမံခန့်ခွဲခြင်း နှင့် သင့်လျော်သော သက်ရောက်မှုများနှင့်ဘေးအန္တရာယ်များ လျော့ကျစေရေးအစီအမံများ လိုက်နာကျင့်သုံးခြင်း

လုပ်ငန်း	ဘေးအန္တရာယ်	သက်ရောက်မှု	လျော့ကျစေရေးအစီအမံ
Development			
Location	Land Acquisition Force Relocation Conflict	Social, Biological	Cleared from land acquisition issue. Locate outside protected areas. Land rented under agreement.
Design	View	Historical, Cultural	Designed not to cover the historical and cultural view
Construction	Waste and wastewater, generator operation	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Managed not to impact environmental and social by LTICL during development phase
Installation	Waste and wastewater, generator operation	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Managed not to impact environmental and social by LTICL during development phase
Operation			
Operation	Waste Conflict,	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Environmental Management Plan implementation

Maintenance	Noise, Dust, Pollution, Waste Conflict	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Environmental Management Plan implementation
Abandonment			
Deinstallation & Closeout of project	Noise, Dust, Pollution, Waste, Conflict,	Residual Environmental, Social	LTICL to manage no impact to environmental and social

1.5.2.3 ကြွင်းကျန်သက်ရောက်မှုများ၏ စရိုက်လက္ခဏာဖော်ထုတ်သတ်မှတ်ခြင်းနှင့် ဆန်းစစ်ခြင်းနှင့် တည်ဆဲဥပဒေ၊ စံချိန်စံညွှန်း၊ လမ်းညွှန်ချက်များ၊ နှိုင်းယှဉ်ချက်

ကြွင်းကျန်သက်ရောက်မှုများ၏ စရိုက်လက္ခဏာဖော်ထုတ်သတ်မှတ်ခြင်းနှင့် ဆန်းစစ်ခြင်း ဖြစ်နိုင်ချေရှိသော သက်ရောက်မှုများ ဖော်ထုတ်ခြင်း နှင့် ဆန်းစစ်ခြင်း တွင် ပြင်းထန်သည့် သက်ရောက်မှုများ၊ ကြွင်းကျန်သက်ရောက်မှု ဖော်ထုတ်ခြင်း နှင့် မှီငြမ်းသောလမ်းညွှန်ချက်များ ပါဝင်ပြီး အသေးစိတ်ကို အခန်း (၅.၂.၃) ၌ ဖော်ပြထားပါသည်။

1.5.2.4 ပြည့်စုံသည့် လေ့လာစောင့်ကြည့်ရေးအစီအစဉ်

စီမံကိန်း (ဆောက်လုပ်ခြင်း၊ လုပ်ငန်းလည်ပတ်ခြင်း၊ ရပ်ဆိုင်းခြင်း) ကာလတလျှောက် လုပ်ဆောင်ချက်များကို လေ့လာစောင့်ကြည့်နိုင်ရန်အတွက် ပြင်ဆင်ထားသော ပြည့်စုံသည့် လေ့လာစောင့်ကြည့်ရေးအစီအစဉ်ကို အခန်း (၅) တွင် ဖော်ပြထားပါသည်။

1.5.3 ဖြစ်နိုင်ချေရှိသော ဘေးအန္တရာယ်များ ဖော်ထုတ်ခြင်းနှင့် လျော့ကျစေရေး အစီအမံများ

ဖြစ်နိုင်ချေရှိသော သက်ရောက်မှုများ ဖော်ထုတ်ခြင်း နှင့် ဆန်းစစ်ခြင်း တွင် ပြင်းထန်သည့် သက်ရောက်မှုများ၊ ကြွင်းကျန်သက်ရောက်မှုများအား ကောင်းကင်ဓါတ်ပုံများ၊ ဂြိုဟ်တုဓါတ်ပုံများ၊ မြေပုံများ အသုံးပြု ဆန်းစစ်ခြင်းတို့ ပါဝင်ပြီး အသေးစိတ်အား အခန်း (၅) ၌ ဖော်ပြထားပါသည်။

1.5.4 ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် လျော့ကျစေရေးဆောင်ရွက်ချက်များ

ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း၏ ရည်ရွယ်ချက်မှာ ပတ်ဝန်းကျင်အပေါ်ဖြစ်ပေါ်နိုင်သည့် ဘေးအန္တရာယ်များဖော်ထုတ်ရန်နှင့် စီမံကိန်း လုပ်ဆောင်မှုများမှ ဖြစ်ပေါ်လာနိုင်သည့် သက်ရောက်မှု များအား တိုင်းတာရန်၊ ဖယ်ရှားရန်၊ ထိန်းချုပ်ရန် သို့မဟုတ် လျော့ကျစေရေးဆောင်ရွက်ရန်တို့ ဖြစ်ပါသည်။

1.5.5 ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဆိုင်ရာ ဆန်းစစ်ခြင်း

အဆိုပြုထားသောစီမံကိန်းအတွက် ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဆိုင်ရာဆန်းစစ်မှုများကို စီမံကိန်း ရေးဆွဲခြင်း၊ အကောင်အထည်ဖော်ခြင်းနှင့် ပိတ်သိမ်းခြင်း၏ အောက်ဖော်ပြပါအဆင့်များ၌ ဖြစ်နိုင်ချေရှိသော သက်ရောက်မှုများအတွက်ပြုလုပ်ခဲ့ပါသည်။

(၁) တည်နေရာသက်ရောက်မှု။ ။ ပတ်ဝန်းကျင်အပေါ်သက်ရောက်မှုများနှင့် ပြန်လည် နေရာချ ထားရေး သို့မဟုတ် လူမှုအသိုင်းအဝိုင်းအပေါ်သက်မွေးဝမ်းကျောင်းဆိုင်ရာ သက်ရောက်မှုများ အပါအဝင် လုပ်ငန်းခွင်နေရာ ရွေးချယ်ရေးနှင့်ဆက်စပ်သက်ရောက်မှု။

(၂) ဒီဇိုင်းသက်ရောက်မှုများ။ ။ အသုံးပြုသောနည်းပညာ၊ လုပ်ငန်းလည်ပတ်မှုအတိုင်းအတာ၊ စွန့်ပစ်ပစ္စည်းစနစ်များစသည့် စီမံကိန်းဒီဇိုင်းမှဖြစ်ပေါ်လာသောသက်ရောက်မှုများ။

(၃) ဆောက်လုပ်ရေးသက်ရောက်မှုများ။ ။ လုပ်ငန်းခွင်ရှင်းလင်းခြင်း၊ မြေနေရာရှင်းလင်းခြင်း၊ ဆောက်လုပ်ရေးလုပ်ငန်းများစသည်တို့အပါအဝင် အဆင့်မြှင့်တင်ခြင်း/ဆောက်လုပ်ရေးလုပ်ငန်း များမှ သက်ရောက်မှုရလဒ်များ။

(၄) လည်ပတ်ရေးနှင့် ပြုပြင်ထိန်းသိမ်းခြင်းသက်ရောက်မှု။ ။ အဆိုပြုလုပ်ငန်းတွင် တည်ဆောက် တပ်ဆင်ထားသော အခြေခံ အဆောက်အအုံများနှင့် စက်ယန္တရားများ၏ လည်ပတ်မှု၊ ထိန်းသိမ်းမှု နှင့်သက်ဆိုင်သော သက်ရောက်မှုများ။

(၅) ပိတ်သိမ်းရေး။ ။ အဆိုပြုလုပ်ငန်းတွင် တပ်ဆင်ထားသော စက်ယန္တရားများ ဖြုတ်သိမ်းခြင်း၊ တည်ဆောက်ထားသော အခြေခံ အဆောက်အအုံများ ဖျက်သိမ်းခြင်း၊ ခန့်အပ်ထားသော အမြဲတမ်း ဝန်ထမ်းများအား အလုပ်မှ ရပ်ဆိုင်းခြင်းနှင့် သက်ဆိုင်သော သက်ရောက်မှုများ။

အဆိုပြုစီမံကိန်းဆောင်ရွက်ရာမှ ဖြစ်ပေါ်လာနိုင်မည့် သက်ရောက်မှုများအား အောက်တွင် ဖော်ပြ ထားပါသည်။ ဖြစ်ပေါ်လာနိုင်မည့် ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဆိုင်ရာ သက်ရောက်မှုများနှင့် လျော့ပါး စေရေး အစီအမံများအား အခန်း (၅) ၌ အသေးစိတ် ထည့်သွင်းရေးဆွဲထားပါသည်။

ကာလ	ဆောင်ရွက်ချက်	ဘေးအန္တရာယ်	သက်ရောက်မှု
ဖွံ့ဖြိုးရေး	နေရာ ဒီဇိုင်း ဆောက်လုပ်ရေး တပ်ဆင်ခြင်း	မြေယာသိမ်းဆည်းမှု၊ အတင်းအကြပ်ရွှေ့ပြောင်းစေမှု အမြင်ပသာဒ ဆူညံမှု၊ ဖုန်မှုန့်၊ ညစ်ညမ်းမှု၊ စွန့်ပစ်ပစ္စည်း၊ ပဋိပက္ခ ဆူညံမှု၊ ဖုန်မှုန့်၊ ညစ်ညမ်းမှု၊ စွန့်ပစ်ပစ္စည်း၊ ပဋိပက္ခ	လူမှုရေး၊ သမိုင်း၊ ယဉ်ကျေးမှု၊ ပတ်ဝန်းကျင် ပတ်ဝန်းကျင်၊ လူမှုရေး ပတ်ဝန်းကျင်၊ လူမှုရေး
လည်ပတ်ရေး	လည်ပတ်ခြင်း ပြုပြင်ထိန်းသိမ်းခြင်း	စွန့်ပစ်ပစ္စည်း၊ ပဋိပက္ခ ဆူညံမှု၊ ဖုန်မှုန့်၊ ညစ်ညမ်းမှု၊ စွန့်ပစ်ပစ္စည်း၊ ပဋိပက္ခ	ပတ်ဝန်းကျင်၊ လူမှုရေး ပတ်ဝန်းကျင်၊ လူမှုရေး
ပိတ်သိမ်းရေး	ဖျက်သိမ်းရပ်စဲခြင်း	ဆူညံမှု၊ ဖုန်မှုန့်၊ ညစ်ညမ်းမှု၊ စွန့်ပစ်ပစ္စည်း၊ ပဋိပက္ခ	ပတ်ဝန်းကျင်၊ လူမှုရေး

ပတ်ဝန်းကျင်ဆိုင်ရာ ဘေးအန္တရာယ် နှင့် သက်ရောက်မှုဆန်းစစ်ခြင်း အကျဉ်းချုပ်

စီမံကိန်းမှ ဖြစ်ပေါ်လာနိုင်သည့် အလားအလာရှိသော ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဆိုင်ရာ သက်ရောက်မှုများကို လက်ရှိကျင့်သုံးနေသော လျော့ပါးစေရေး အစီအမံများ နှင့် အကြံပြုထားသော လျော့ပါးစေရေး အစီအမံများ ကျင့်သုံး၍ ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဆိုင်ရာ ကြွင်းကျန်သက်ရောက် နိုင်ချေနည်းသည့် အဆင့်များအဖြစ် အမျိုးအစား ခွဲခြားနိုင်ပါသည်။ ကျန်ရှိသည့် အန္တရာယ်များအား အလယ်အလတ်၊ မြင့်မား၊ သို့မဟုတ် ပြင်းထန်မှုအဖြစ် အကဲဖြတ်ထားခြင်း မရှိပါ။ အစီရင်ခံစာ အခန်း (၅) ၌ ဆန်းစစ်ချက်အကျဉ်းချုပ်အား ဖော်ပြထားပြီး၊ သက်ရောက်မှု လျော့ပါးစေမည့် သို့မဟုတ် ပျောက်ကွယ်စေမည့် အချက်များအားလည်း ထည့်သွင်းဖော်ပြထားပါသည်။

1.6 ဆက်စပ်သက်ရောက်မှုဆန်းစစ်ခြင်း

လက်ရှိနှင့် အနာဂတ် ပုဂ္ဂလိကနှင့် ပြည်သူပိုင်စီမံကိန်းများနှင့် ဖွံ့ဖြိုးမှုများနှင့်ပတ်သက်၍ စီမံကိန်း နေရာသည် စက်မှုဇုန်နှင့် ထိစပ်မနေခြင်း၊ အခြားစက်မှုလုပ်ငန်းများနှင့်လည်း ထိစပ်မနေခြင်း၊

အခြေကျပြီးသော လူနေရပ်ကွက်ဖြစ်၍ မြို့ပြစီမံကိန်း ထပ်မံပြောင်းလဲရန် မရှိနိုင်ခြင်း၊ တို့ကြောင့် လက်ရှိကာလတွင် ဆက်စပ်သက်ရောက်မှု ဆန်းစစ်ရန် မရှိပါ။

1.7 ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်

1.7.1 ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်၏ ရည်မှန်းချက် နှင့် လုပ်ငန်းစဉ်

စီမံကိန်းဆောင်ရွက်သူအား ထုတ်ပေးမည့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဆိုင်ရာလိုက်နာဆောင်ရွက်မှု သက်သေခံလက်မှတ်ရရှိနိုင်ရန် တင်ပြရမည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ ပြုစု တင်ပြရာတွင် စီမံကိန်းအတွက် ပတ်ဝန်းကျင်ဆိုင်ရာလေ့လာ၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ ပြုစုရေးဆွဲခြင်း လိုအပ်ချက်ကို ဖြည့်ဆည်းဆောင်ရွက်သွားရန် ရည်ရွယ်ထားပါသည်။

EMP အား ကြိုတင်ကာကွယ်ခြင်း ၊ လျော့ချခြင်း နှင့် စောင့်ကြည့်ရေး ဆောင်ရွက်မှုများ အားဖြင့် လုပ်ငန်းလုပ်ဆောင်မှုကြောင့် ပတ်ဝန်းကျင်ကို ထိခိုက်စေနိုင်သည့် သက်ရောက်မှုများကို လုံးဝ ကင်းစင်စေရန် (သို့မဟုတ်) လက်တွေ့ကျသော လက်ခံနိုင်သည့် အဆင့် (ALARP) အထိ လျော့နည်းစေရန် ရည်ရွယ်သည်။

စီမံကိန်းအတွက် ပတ်ဝန်းကျင်ဆိုင်ရာလေ့လာမည့် လုပ်ငန်းစဉ်တွင် စီမံကိန်းဆောင်ရွက်သူ ၏ အကြောင်းအရာ၊ လိုက်နာရမည့် ဥပဒေ၊ နည်းဥပဒေ၊ လုပ်ထုံးလုပ်နည်း၊ စည်းမျဉ်းစည်းကမ်း၊ ကတိကဝတ်၊ အဖွဲ့အစည်း ဆိုင်ရာ မူဘောင်များ၊ စီမံကိန်း အဆိုပြုလွှာပါ အချက်အလက်များ နှင့် အခြားနည်းလမ်းများ၊ စီမံကိန်းနှင့် ထိစပ်နေသည့် ပတ်ဝန်းကျင်၏ နောက်ခံ အချက်အလက်နှင့် လက်ရှိ ပတ်ဝန်းကျင်၏အရည်အသွေးများ (မြေ၊ ရေ၊ လေ၊ ဆူညံသံ၊ စသည်)၊ စီမံကိန်းလည်ပတ်ရာမှ ထွက်ပေါ်လာနိုင်သည့် သက်ရောက်မှုများနှင့်ဘေးအန္တရာယ်များကြောင့် စီမံကိန်းနှင့် ထိစပ်နေသည့် ပတ်ဝန်းကျင်ကို သက်ရောက်မှုဖြစ်ကာ ထိခိုက်စေနိုင်သည့် အရာများ၊ စီမံကိန်းရပ်နားပြီးနောက် ထွက်ပေါ်လာနိုင်သည့် ကြွင်းကျန်သက်ရောက်မှုများနှင့်ဘေးအန္တရာယ်များ ကင်းစင်စေမည့် နည်းလမ်းများ အပါအဝင် စီမံကိန်းလည်ပတ်ရာမှ ထွက်ပေါ်လာနိုင်သည့် သက်ရောက်မှုများနှင့် ဘေးအန္တရာယ်များ ကင်းစင်လျော့ပါးသွားစေမည့် နည်းလမ်းများ၊ စီမံကိန်းနှင့် အခြားစီမံကိန်း တို့၏ ဆက်စပ်သက်ရောက်နိုင်မှုများ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်၊ စီမံကိန်းနှင့်သက်ဆိုင်ရာ ကဏ္ဍအလိုက် တွေ့ဆုံပွဲများ၊ သတင်းအချက်အလက်ဖော်ထုတ် တင်ပြခြင်းများ၊ အစရှိသည့် လုပ်ငန်းစဉ်များ ပါဝင်ပါသည်။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ ပြုစုရေးဆွဲမည့် လုပ်ငန်းစဉ်တွင် စီစဉ်ထား သော လုပ်ဆောင်မှုများနှင့် အလားအလာရှိသော မစီစဉ်ရသေးသော အဖြစ်အပျက်များ ခွဲခြမ်း

စိတ်ဖြာခြင်း၊ စီမံကိန်း၊ ဧရိယာ၏ ပတ်ဝန်းကျင်ဆိုင်ရာ အခြေခံလိုင်းတစ်ခု တည်ထောင်ခြင်း၊ လက်ရှိပတ်ဝန်းကျင်ဆိုင်ရာဖော်ပြချက်အပေါ်အခြေခံ၍ သိသာထင်ရှားသော အကျိုး သက်ရောက်မှုများကို ခွဲခြားစိစစ်၍ အကဲဖြတ်ခြင်း ဖြစ်နိုင်ခြေရှိသော အကျိုးသက်ရောက်မှုများကို လျော့နည်းစေရန် လျော့နည်းစေသည့် ဆောင်ရွက်ချက်များကို ခွဲခြားစိစစ်ပြီး ဆောင်ရွက်ခြင်း ပတ်ဝန်းကျင်အပြောင်းအလဲများကို ခြေရာခံနိုင်ပြီး မြန်မာနိုင်ငံ၏ တည်ဆဲဥပဒေကို လိုက်နာကြောင်း သေချာစေရန် စောင့်ကြည့်ရေးအစီအစဉ်တစ်ခုကို အကြံပြုခြင်း၊ စသည်တို့ ပါဝင်ပါသည်။

1.7.2 စီမံကိန်းအကြောင်းအရာဖော်ပြချက် နှင့် အခြားနည်းအကြောင်းအရာဖော်ပြချက်

စီမံကိန်းဆောင်ရွက်သူနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာကျွမ်းကျင်သူ လိုင်စင်ရ ပညာရှင်များ / တတိယအဖွဲ့အစည်းကို အခန်း (၁) တွင် တင်ပြထားပါသည်။ စီမံကိန်းအကြောင်းအရာနှင့် အခြားနည်း အကြောင်းအရာ ဖော်ပြချက်ကို အခန်း (၃) တွင် တင်ပြထားပါသည်။ အဆိုပြုစီမံကိန်း နှင့် ထိစပ်နေသော ပတ်ဝန်းကျင်နှင့် လူမှုဆိုင်ရာ အခြေခံအချက်အလက်ကို အခန်း (၄) တွင် တင်ပြထားပါသည်။

1.7.3 ဖြစ်နိုင်ချေရှိသော ပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုများ ဖော်ထုတ်ခြင်း နှင့် ဆန်းစစ်ခြင်း
ဖြစ်နိုင်ချေရှိသော ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုများ ဖော်ထုတ်ခြင်း နှင့် ဆန်းစစ်ခြင်း အသေးစိတ်အား အခန်း (၇) ၌ ဖော်ပြထား ပါသည်။

1.7.4 ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် သုံးငွေ

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အကောင်အထည်ဖော် ဆောင်ရွက်ရန်အတွက် စုစုပေါင်း သုံးငွေ အဖြစ် (အမေရိကန်ဒေါ်လာ ၃၀၀၀) လျာထားပါသည်။

1.7.5 လုပ်ငန်းအဆင့်အလိုက် စီမံခန့်ခွဲမှုနှင့် စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးမှုအစီအစဉ်ခွဲများ

လုပ်ငန်းအဆင့်အလိုက် ပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာ စီမံခန့်ခွဲမှုနှင့် စောင့်ကြပ်ကြည့်ရှု စစ်ဆေးမှု အစီအစဉ်ခွဲများနှင့် စပ်လျဉ်း၍ ဆူညံမှု၊ တုန်ခါမှု၊ စွန့်ပစ်ပစ္စည်း၊ စွန့်ပစ်ရေနှင့် ရေဆိုးများ၊ လေအရည်အသွေး၊ အနံ့၊ ဓာတုပစ္စည်း၊ ရေအရည်အသွေး၊ တိုက်စားမှုနှင့် နှုတ်အနည်ကျမှု၊ ဇီဝမျိုးစုံမျိုးကွဲ၊ လုပ်ငန်းခွင်ဆိုင်ရာနှင့် လူမှုအဖွဲ့အစည်းဆိုင်ရာ ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်

ကင်းရှင်းရေး၊ အလုပ်အကိုင်နှင့်လေ့ကျင့်သင်ကြားမှု၊ ယဉ်ကျေးမှု အမွေအနှစ်၊ အရေးပေါ်တုံ့ပြန်မှု၊ စသည့် သက်ဆိုင်ရာ ပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာ စီမံခန့်ခွဲမှုနှင့် စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးမှု ကိစ္စရပ်များကို အခန်း (၇) ၌ အသေးစိတ် ထည့်သွင်းရေးဆွဲထားပါသည်။

1.7.6 လုပ်ငန်းအဆင့်အလိုက် စီမံခန့်ခွဲမှုနှင့် စောင့်ကြပ်ကြည့်ရှု စစ်ဆေးမှု အစီအစဉ်ခွဲများ

လုပ်ငန်းအဆင့်အလိုက် စီမံခန့်ခွဲမှုနှင့် စောင့်ကြပ်ကြည့်ရှု စစ်ဆေးမှု အစီအစဉ်ခွဲများကို ရည်ရွယ်ချက်၊ ဥပဒေမူဘောင်၊ လုပ်ဆောင်မည့် အစီအစဉ်၊ စီမံခန့်ခွဲမှု၊ စောင့်ကြပ်ကြည့်ရှု စစ်ဆေးမှု၊ သုံးစွဲခွင့်ပြုမည့် ငွေပမာဏ၊ နှင့် တာဝန်ခံသူ စသည်တို့ကို အခန်း (၇) တွင် အသေးစိတ်တင်ပြထားပါသည်။

1.7.6.1 ရည်ရွယ်ချက်

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ပြင်ဆင်ပြုစုခြင်း ၏ အဓိကရည်ရွယ်ချက်မှာ စီမံကိန်းက မူလ ကျင့်သုံးနေသောပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်တွင် အဓိပ္ပါယ်အမျိုးမျိုး သတ်မှတ်ထားသည့် စီမံခန့်ခွဲမှုနှင့်စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးမှုများနှင့် လုပ်ငန်းများ ကို စနစ်တကျ စွမ်းဆောင်ရည် ထိထိရောက်ရောက်ဖြင့် လုပ်ဆောင်နိုင်စေမည့် ထိရောက်သော စီမံခန့်ခွဲရေး ကရိယာအဖြစ်သို့ ဖွံ့ဖြိုးတိုးတက်လာစေရန် အတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ပြင်ဆင်ပြုစုသွားရန် ဖြစ်ပါသည်။

1.7.6.2 ဥပဒေမူဘောင်

Legal requirements are described in Section 2 & 7.

လိုက်နာကျင့်သုံးရမည့် မြန်မာနိုင်ငံ၏ ဥပဒေမူဘောင်ဆိုင်ရာ လိုအပ်ချက်များ၊ ကတိကဝတ်များ၊ စံချိန်စံညွှန်းများ၊ လမ်းညွှန်ချက်များ၊ ကိုးကားရမည့် နိုင်ငံတကာ စည်းမျဉ်းစည်းကမ်းများ၊ လမ်းညွှန်ချက်များ၊ ကျင့်သုံးမည့် အဖွဲ့အစည်းများ၊ စသည်တို့ကို အခန်း (၂) နှင့် (၇) တွင် ဖော်ပြထားပါသည်။

1.7.6.3 ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် လုပ်ဆောင်မည့် အချိန်ဇယား

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်လုပ်ဆောင်မည့် အချိန်ဇယားနှင့် အစီရင်ခံစာတင်ပြမည့် ကြိမ်နှုန်းကို အောက်တွင် ဖော်ပြထားပါသည်။

စီမံကိန်းကာလ	ကြာချိန်	ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ဆောင်ရွက်မည့် အချိန်ကာလ	ကြိမ်နှုန်း
ဖွံ့ဖြိုးရေး	၁ နှစ်	၁ နှစ်	၆ လ တကြိမ်
လည်ပတ်ရေး	၂၀ နှစ်	၂၀ နှစ်	၆ လ တကြိမ်

ဖျက်သိမ်းရေး	၃ - ၆ လ	၆ လ	၆ လ တကြိမ်

1.7.6.4 ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုလုပ်ဆောင်ခြင်း

ပတ်ဝန်းကျင်စီမံခန့်ခွဲရေးအဖွဲ့သည် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကိုလုပ်ဆောင်သွားရန် သတ်မှတ်ထားသည့် ဥပဒေနှင့် အညီ လိုက်နာလုပ်ဆောင်နိုင်စေရန် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် လုပ်ဆောင်ရေးအဖွဲ့ ဖွဲ့စည်းခြင်း၊ နှစ်စဉ်သုံးငွေ ခွင့်ပြုခြင်း၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် လုပ်ဆောင်ချက်များကို စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးမှုများ နှင့် အစီရင်ခံစာ တင်သွင်းခြင်းတို့တွင် ပူးပေါင်းဆောင်ရွက်ခြင်းတို့ လုပ်ဆောင်သွားရန် ရှိပါသည်။ အခန်း (၇) တွင် ဖော်ပြထားပါသည်။

1.7.6.5 စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးမည့် အစီအစဉ်

စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးမည့် အစီအစဉ်တွင် သတ်မှတ်ထားသည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အတိုင်း စီမံခန့်ခွဲခြင်းနှင့် လိုက်နာလုပ်ဆောင်ခြင်း၊ စီမံကိန်းလုပ်ငန်း လုပ်ဆောင်မှုများ၊ NEQEG General Guidelines ၏ လမ်းညွှန်ချက်ကို ကိုးကား၍ ပတ်ဝန်းကျင် အရည်အသွေးများကို စစ်ဆေးခြင်း၊ စသည်တို့ကို မှတ်သား၍ ဦးစီးဌာနသို့ (၆)လ တကြိမ် အစီရင်ခံစာ ပြုစု တင်ပြခြင်းတို့ လုပ်ဆောင်သွားရန် ရှိပါသည်။ အခန်း (၇) တွင် ဖော်ပြထားပါသည်။

1.7.6.6 ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် တခုချင်းစီအတွက် သတ်မှတ် သုံးငွေ

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အကောင်အထည်ဖော် ဆောင်ရွက်ရန်အတွက် နှစ်စဉ် စုစုပေါင်း သုံးငွေ အဖြစ် (အမေရိကန်ဒေါ်လာ ၃၀၀၀) လျာထားပါသည်။ ထို နှစ်စဉ်လျာထားငွေကို သုံးခွင့်ပြုရန် LTICL (MD & Director) တွင် တာဝန် အပြည့် ရှိပါသည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ထိရောက်စွာ အကောင်အထည်ဖော် ဆောင်ရွက်နိုင်ရန်အတွက် လိုအပ်ပါက သုံးစွဲနိုင်ရန် နှစ်စဉ် သီးခြား သုံးငွေစာရင်း သတ်မှတ်၍ သုံးရန် လျာထားပါသည်။ စီမံကိန်း အလုပ်ရုံတာဝန်ခံ မန်နေဂျာအနေဖြင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ထိရောက်စွာ အကောင်အထည်ဖော် ဆောင်ရွက်နိုင်ရန် တာဝန်ခံ၍ နှစ်စဉ် ခွင့်ပြုငွေကို သတ်မှတ်ထားသည့် အတိုင်း စနစ်တကျ ခွဲဝေ အသုံးပြုသွားပါမည်။ အခန်း (၇.၆.၇) တွင် ဖော်ပြထားပါသည်။

1.8 အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးခြင်းနှင့် သတင်းအချက်အလက် ထုတ်ဖော်ခြင်း

အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးခြင်းနှင့် သတင်းအချက်အလက် ထုတ်ဖော်ခြင်းများကို အစီရင်ခံစာ အခန်း (၈) ၌ အသေးစိတ်ဖော်ပြထားပါသည်။

1.8.1 နည်းလမ်းသတ်မှတ်မှုနှင့် ချဉ်းကပ်မှု

အဆိုပြုစီမံကိန်းကို မြန်မာနိုင်ငံ၏ တည်ဆဲဥပဒေများနှင့် အညီ လုပ်ဆောင်နိုင်ရန်အတွက် လိုအပ်သည့် ခွင့်ပြုချက်များ ရယူနိုင်ရန် အဓိကအားဖြင့် ဌာနဆိုင်ရာများ နှင့် ဆက်သွယ်၍ ညွှန်ကြားချက်များ၊ သဘောထားများရယူခဲ့ပြီး ဒေသခံပြည်သူတို့၏ စီမံကိန်းအပေါ် သဘောထား အမြင်များအားလည်း ထည့်သွင်း စဉ်းစားထားပါသည်။

1.8.2 ဆွေးနွေးညှိနှိုင်းမှုအကျဉ်းချုပ်နှင့် ဆောင်ရွက်သည့် လှုပ်ရှားဆောင်ရွက်မှုများ

စီမံကိန်းအနေဖြင့် ပတ်ဝန်းကျင်နှင့်လူမှုဆိုင်ရာကိစ္စရပ်များနှင့်စပ်လျဉ်း၍ စီမံကိန်းနှင့် သက်ဆိုင်သည့် အာဏာပိုင်များ၊ ဒေသခံများနှင့် တွေ့ဆုံ ဆွေးနွေးညှိနှိုင်းခြင်းကို လုပ်ငန်းစဉ်၏ အရေးကြီးအစိတ်အပိုင်းအဖြစ် သတ်မှတ်ဆောင်ရွက်ထားပါသည်။ တွေ့ဆုံ ဆွေးနွေးညှိနှိုင်းမှုများသည် စီမံကိန်းနှင့် ဒေသခံများ၏ လိုအပ်ချက်များကို ဖော်ထုတ်ရာတွင် အထောက်အကူပြုပါသည်။ ဆွေးနွေးညှိနှိုင်းမှုများ၏ ရလဒ်များကို မှတ်တမ်းတင်ထားရှိပါသည်။ စီမံကိန်းအနေဖြင့် ပြည်ထောင်စုအစိုးရအဖွဲ့၊ တိုင်းဒေသကြီးအစိုးရအဖွဲ့၊ မြို့နယ်အုပ်ချုပ်ရေးအဖွဲ့၊ စသည်တို့မှ စီမံကိန်းနှင့်သက်ဆိုင်ရာ တာဝန်ရှိသူတို့နှင့် တွေ့ဆုံဆွေးနွေးညှိနှိုင်းမှုများ၊ စီမံကိန်းအနီးရှိ ဒေသခံပြည်သူများက စီမံကိန်းနှင့်ပတ်သက်၍ ထားရှိမည့် သဘောထား အမြင်များ ထည့်သွင်းစဉ်းစား ဆောင်ရွက်ထားပါသည်။

1.8.3 ဆွေးနွေးညှိနှိုင်းမှုများ၏ရလဒ်များ

BRIC အနေဖြင့် စီမံကိန်းအား အတည်ပြုရာတွင် ထုတ်ပြန်ပြဌာန်းထားသည့် ဥပဒေ၊ နည်း ဥပဒေ၊ လုပ်ထုံးလုပ်နည်း၊ အမိန့်နှင့် ညွှန်ကြားချက်များအား လိုက်နာ၍ ဆောင်ရွက်စေခဲ့ပါသည်။ သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် အတည်ပြုချက် လုပ်ငန်းစဉ်ဆိုင်ရာ အသေးစိတ်အချက်အလက်များအား ပေးထားပါသည်။

ပဲခူးတိုင်းဒေသကြီးအစိုးရအဖွဲ့၊ ပဲခူးမြို့နယ်စည်ပင်သာယာရေးကော်မတီ တို့သည် ပဲခူးတိုင်းဒေသကြီးဖွံ့ဖြိုးတိုးတက်ရေးနှင့် အလုပ်အကိုင်အခွင့်အလမ်းများ တိုးတက်လာရေး၊ ဒေသတွင်းဝင်ငွေတိုးမြှင့်လာရေး၊ လူနေမှုအဆင့်အတန်းမြင့်မားလာစေရေးတို့အတွက် စီမံကိန်းမြေပေါ်တွင် ဆောင်ရွက်ခွင့်ပြုခဲ့ပါသည်။

EMP အစီရင်ခံစာ ဆောင်ရွက်စဉ်အတွင်း စီမံကိန်းဝန်ထမ်းများထံမှ တိုင်ကြားချက်နှင့် တုန့်ပြန်ချက်များ မရရှိခဲ့ပါ။ CSR လုပ်ငန်းမှတစ်ဆင့် ဒေသခံများဖွံ့ဖြိုးရေးလုပ်ငန်းများတွင် ပံ့ပိုးပေးနိုင်ရန် ညှိနှိုင်းဆွေးနွေးခဲ့ပြီး၊ စီမံကိန်းဆောင်ရွက်ခြင်းကြောင့် ဒေသတွင်း အလုပ်အကိုင် အခွင့်အလမ်းများ တိုးတက်ခဲ့ပါသည်။

1.8.4 ဆက်လက်ဆောင်ရွက်မည့် တိုင်ပင်ဆွေးနွေးမှုများ

စီမံကိန်းနှင့် ယင်းနှင့်ဆက်စပ်နေသော ပတ်ဝန်းကျင်နှင့်လူမှုဆိုင်ရာ လက်ရှိအခြေအနေတို့ကို ရှင်းလင်း တင်ပြပြီး၊ သဘောထားမှတ်ချက်၊ အကြံဉာဏ်၊ တောင်းဆိုချက်၊ စသည်တို့ ရယူနိုင်ရန် စီမံကိန်းနှင့် သက်ဆိုင်သည့် အာဏာပိုင်များ၊ ဒေသခံများနှင့် တွေ့ဆုံ ဆွေးနွေးညှိနှိုင်းခြင်း ကို ၂၀၂၄ ခုနှစ်အတွင်း လုပ်ဆောင်သွားရန် စီစဉ်ထားပါသည်။

1.8.5 သတင်းအချက်အလက်ထုတ်ဖော်ချက်

ဥပဒေ၊ နည်းဥပဒေများနှင့်အညီဆောင်ရွက်ထားသည့် ဤ EMP အစီရင်ခံစာအား အများ ပြည်သူထင်မြင်ချက်ပေးနိုင်မည်ဖြစ်ပါသည်။ အစီရင်ခံစာ အပြည့်အစုံအား အင်္ဂလိပ်ဘာသာဖြင့် ရေးသားထားပြီး၊ လွယ်ကူရှင်းလင်းစွာရေးသားထားသည့် အကျဉ်းချုပ်အစီရင်ခံစာအား မြန်မာဘာသာဖြင့် ဖတ်ရှုနိုင်မည် ဖြစ်ပါသည်။ ဤအစီရင်ခံစာအား သက်ဆိုင်သူများ သိရှိနိုင်ရန် စီမံကိန်းရုံး၌လည်း ထားရှိသွားမည် ဖြစ်ပါသည်။

1.9 CSR အစီအစဉ်

စီမံကိန်းအနေဖြင့် CSR အစီအစဉ်ဆောင်ရွက်ရာတွင် ဒေသခံများ၏ ပညာရေးကဏ္ဍ၊ ကျန်းမာရေး ကဏ္ဍများအတွက် အထောက်အပံ့ပေးခြင်း ဆောင်ရွက်သကဲ့သို့ ဝန်ထမ်းများနှင့် ၎င်းတို့၏ မိသားစု ဝင်များ၏ သက်သာချောင်ချိရေး၊ ပျော်ရွှင်သာယာရေး အတွက် ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

1.9.1 CSR အစီအစဉ်အတွက် ဘဏ္ဍာငွေ

စီမံကိန်းအနေဖြင့် နှစ်စဉ် အမြတ်ငွေ၏ ၂ ရာခိုင်နှုန်းကို CSR အစီအစဉ်ဆောင်ရွက်ရာတွင် ပညာရေးကဏ္ဍ၊ ကျန်းမာရေး ကဏ္ဍများတွင် အောက်ပါအတိုင်း အသုံးပြု ဆောင်ရွက်သွားပါမည်။ -

- (က) ပညာရေးကဏ္ဍအတွက်သုံးစွဲခြင်း - ၂၅ ရာခိုင်နှုန်း၊
- (ခ) ကျန်းမာရေးကဏ္ဍအတွက် သုံးစွဲ ခြင်း - ၂၅ ရာခိုင်နှုန်း၊
- (ဂ) ဝန်ထမ်းများ သက်သာချောင်ချိရေး၊ ပျော်ရွှင်သာယာရေး အတွက် သုံးစွဲခြင်း - ၅၀ ရာခိုင်နှုန်း

1.10 တွေ့ရှိချက်များနှင့် အကြံပြုချက်များ

စီမံကိန်းဆောင်ရွက်ခြင်းမှ ပြည်တွင်းငွေနှင့် နိုင်ငံခြားငွေ စီးဆင်းလည်ပတ်မှုကို ပိုမိုတိုးတက်လာစေရန် အထောက်အကူပြုစေမည် ဖြစ်ပါသည်။ ရရှိနိုင်မည့် အကျိုးကျေးဇူးများကို အခန်း ၁၁ တွင် တင်ပြထားပါသည်။

စီမံကိန်းလုပ်ဆောင်ရာတွင် ပတ်ဝန်းကျင်ထိခိုက်မှုကို သိသာထင်ရှားစွာ သက်ရောက်စေနိုင်သည့် လုပ်ဆောင်ချက်များ၊ ထုတ်လွှတ်မှုများကို ဥပဒေ၊ လမ်းညွှန်ချက်များနှင့် အညီလျော့ကျသွားစေရန် စနစ်တကျလျှော့ချနိုင်မည့် နည်းလမ်းများကို ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးအစီအစဉ် အစီရင်ခံစာတွင် ဖော်ပြထားသည်ကို တွေ့ရှိရပါသည်။

လမ်းညွှန်ချက်များနှင့်အညီ စီမံကိန်းလုပ်ဆောင်ရာတွင် ပတ်ဝန်းကျင်ထိခိုက်မှုကို လျော့ကျသွားစေရန် လုပ်ဆောင်ချက်များနှင့် ထုတ်လွှတ်မှုများကို စနစ်တကျလျှော့ချနိုင်မည့် နည်းလမ်းများကို ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးအစီအစဉ် အစီရင်ခံစာတွင် ဖော်ပြထားသည့်အတိုင်း အမြဲလိုက်နာလုပ်ဆောင်သွားရန် လိုအပ်ကြောင်း အကြံပြု တင်ပြအပ်ပါသည်။

1.11 နိဂုံးချုပ်

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးအစီအစဉ် အစီရင်ခံစာတွင် စီမံကိန်းလုပ်ဆောင်မှုကြောင့် ပတ်ဝန်းကျင်ထိခိုက်မှုကို သိသာထင်ရှားစွာ သက်ရောက်စေနိုင်သည့် လုပ်ဆောင်ချက်များ၊ ထုတ်လွှတ်မှုများ ဖော်ထုတ်သတ်မှတ်ပြီး ယင်းတို့ကို ဥပဒေ၊ လမ်းညွှန်ချက်များနှင့် အညီ စီမံကိန်းလုပ်ဆောင်သွားနိုင်ရန် သက်ရောက်မှုလျော့နည်းစေမည့်နည်းလမ်းများကို တင်ပြထားပါသည်။ စီမံကိန်းပြီးဆုံးချိန်တွင် စီမံကိန်းကြောင့် ကြွင်းကျန် သက်ရောက်မှု မဖြစ်ပေါ်စေရန် ပြည့်စုံလုံလောက်သော အစီအမံများ တင်ပြထားပါသည်။ စီမံကိန်းနှင့် ဆက်စပ်သက်ရောက်မှုများ တင်ပြရန် မရှိပါ။

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးအစီအစဉ်အတွက် လေ့လာဆန်းစစ်ခြင်း လုပ်ဆောင်ခဲ့ပြီး၊ ပုံမှန် စီမံကိန်းလုပ်ဆောင်မှုကြောင့် ပတ်ဝန်းကျင်ထိခိုက်မှုကို သိသာထင်ရှားစွာ သက်ရောက်စေနိုင်မှုများ မဖြစ်ပေါ်စေနိုင်ခြင်းနှင့် မဖြစ်ခင်က ကြိုတင်၍ကာကွယ်နိုင်ရန် သက်ရောက်မှုလျော့နည်းစေမည့် နည်းလမ်းများကို ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးအစီအစဉ် အစီရင်ခံစာတွင် တင်ပြထားပါသည်။

1. Introduction

This section describes the project background, project proponent, project third party environmental study team, purpose & scope, TOR, implementation schedule, and project benefits.

Background

The Government of the Republic of the Union of Myanmar (hereinafter referred to as Myanmar) is encouraging investor to develop business of Myanmar under administration of Bago Region Investment Committee. Line Tech Industrial Company Limited (LTICL) is investing in Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis when after MIC approval.

LTICL prepared this Environmental Management Plan (EMP) for its operation throughout the project period (the developing phase, operation phase, and abandonment phase of Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis), for submission to ECD, Ministry of Natural Resources and Environmental Conservation (MONREC) in accordance with the Environment Impact Assessment Procedure.

The proposal of proposed Project has been submitted by Director of LTICL for approval from Bago Region Investment Committee (MIC). The proposed project has been approved with Permit Order No. BGO-031/2019 by Bago Region Investment Committee, Bago Region Investment Committee (MIC) in 20th December 2019. The copy of BRIC permit is attached in the Annexure - 2.

Proposed Project development has been commenced after MIC approval and it is currently commenced for pre-operation phase in Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis by wholly foreign owned Line Tech Industrial Company Limited (invested by the partner companies; Sapphire Legacy SDN. BHD. and Line Tech Industrial Company Limited, according to approved BRIC permit.

LTICL is aimed to continue operation by total invested capital equivalent in Myanmar Kyat of USD 1.351 Million (inclusive amount of foreign capital USD 0.330 Million brought in within 1 year from the date of issuance of BRIC permit) for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis. Income money received from the project operation will be invested again into other allowed business within Myanmar.

LTICL is currently operating its operation in the rented location; Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region, Myanmar, which mentioned in the BRIC permit under land & building facility rent/purchase agreement with landlord.

1.1. Presentation of the Project Proponent/Project Developer

The following company incorporated in Taiwan is Parent Company to operate in accordance with the Foreign Investment Law for the proposed project “Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis”.

Company	Address
Line Tech Industrial Company Limited (Represented by) Mr. Wang, Chia-Long PP No. 302604671 (Taiwan) Mr. Jim Wang	No.82-7/2 Floor, Guang Xia Street, San Chong Quarter, Xing Bei State, Taiwan Email: jim@linetech.com.tw Tel: 886-2-2999-0290 Web Site: www.linetech.com.tw

The following company is solely proponent of the proposed Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

Company	Address
Line Tech Industrial Company Limited (Represented by) Mr. Wang, Chia-Long PP No. 302604671 (Taiwan) Mr. Jim Wang	Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region, Myanmar Email: jim@linetech.com.tw Tel: 09427495002 Web Site: www.linetech.com.tw

Line Tech Industrial Company Limited (Contact Person) U San Win Tun	Tel: 09 421127669

Line Tech Industrial Company Limited (LTICL) was incorporated under the Myanmar Companies Act with certification No.121842246 on 22.8.2019. LTICL has registered at Directorate of Investment and Company Administration (DICA), Ministry of Investment and Foreign Economic Relations (MIFER) for the business mentioned below accordingly under Myanmar Laws & Regulations:

26 – Manufacture of computer, electronic and optical products

 DIRECTORATE OF INVESTMENT AND COMPANY ADMINISTRATION Myanmar Companies Online (MyCO)			
MYCO GUIDES HELP CREATE AN ACCOUNT			
HOME COMPANIES COMPANY SEARCH			
COMPANY PROFILE BACK TO PREVIOUS PAGE			
Company Name (English) LINE TECH INDUSTRIAL COMPANY LIMITED	Company Name (Myanmar)	Registration Number 121842246	Registration Date 22/08/2019
Company Type Private Company Limited by Shares	Status Registered	Foreign Company Yes	Small Company No
Annual Return Due Date 22/09/2024			
Principal Activity 26 - Manufacture of computer, electronic and optical products			

The following company/personnel is investing capital equivalent in Kyat of foreign capital to be brought in US\$ 1.351 Million to promote the proposed project; the Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

Investor/Promoter	% of Investment Company	Country of Origin
Line Tech Industrial Co., Ltd. (Rep by) Mr. Wang, Chia-Long	100%	Taiwan

Line Tech Industrial Company Limited will be functioned as an administrative body of the Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis under the direction of investors of LTICL. The investors operate through appointed director and staff. The mentioned below investors are registered as directors in the certificate of incorporation according to Myanmar Companies Act.

Wholly foreign owned Company (Line Tech Industrial Company Limited)

Name	Nationality, Passport No.	Position
Mr. Wang, Chia-Long	Taiwan (PP No. 302604671)	Managing Director
Mr. Lin, Ta-Yuan	Taiwan (PP No. 31462051)	Director

Purpose and Scope of Proposed Project

Line Tech Industrial Company Limited (LTICL) purposes to invest Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis operation.

The Investor; LTICL, aim to get official's approval/permission order ECCD Certificate from ECD to operate under Myanmar laws which includes environmental laws, rules, regulations.

LTICL scopes include preparing EMP Report for the proposed project with helps from by eligible Third-Party Environmental Study Team and submitting by proponent to get ECCD.

Project Implementation Time Schedules

LTICL will operate its proposed project 20 years in accordance the BRIC permit and development phase is set 1 year after BRIC approval.

Proposed project can be considered as 3 phases; developing phase, operating phase, and abandonment phase. Proposed Project development has been commenced in 2019 (mainly for installation of facility equipment) after MIC approval and operation is planned for 20 years period according to BRIC permit. Abandonment process will be included after completion of project period or termination of project to ensure complying as mentioned in the rental contract without fail from both parties.

Phase	Commence	Duration	Note
Development	2019 Dec	1 Year	100% completed
Operation	2020 Dec	20 Year	On going
Abandonment	TBA	TBA	N/A

1.2. Presentation of Third-Party Environmental Expert

LTICL has assigned environmental study team in May 2024 to conduct environmental assessment and to prepare environmental management plan for the Proposed Project according to EIA procedures. The following personnels are member of Environmental Study Team organized to conduct environmental assessment and to prepare on EMP of proposed project; Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

Environmental Study Team & Schedule

Duration – May 2024 (commenced study on 9th May 2024)

Study Team –

Member –

Environmental Study Consultant Team Member		
No	Consultant Name	Expertise Field & Working Experience
1	U Khin Maung Myoe M.Sc. (Chemistry) M.S. (Environmental Science)	Risk Assessment and Hazard Management EIA-C 034/2023 (1.12.2023) Environmental Working experience since 1998
2	Dr. Zin Min Ph.D. (Environmental Science)	Ecology and Biodiversity EIA-C 033/2023 (1.12.2023) Environmental Working experience since 2000
3	Dr. Khun Hlaine Myint Ph.D. (Geology)	Geological Assessment EIA-C 032/2023 (1.12.2023) Environmental Working experience since 2000
4	Daw Nu Nu Aye M.Sc. (Analytical Chemistry)	Water Pollution Prevention, Control, Monitoring and Prediction of Impacts EIA-C 035/2023 (1.12.2023) Environmental Working experience since 2013
5	Dr. Tin Naing M.B.B.S., DTM&H	Health (Impact Studies and Analysis) EIA-AC 039/2023 (1.12.2023) Occupational & Industrial Health Working experience since 2013

Assisting Member		
No	Name	Roles Involved & Working Experience
1	Dr. Zeya PhD. (Chemistry)	Waste management; Occupational health; Substance use management. Environmental Working experience since 1983
2	Dr. Tin Aye Myint PhD (Engineering Chemistry)	Occupational health; Substance use management. Environmental Working experience since 1983
3	U Hein Thike B.Sc. (Botany), Dip. In GIS	Information gathering; Field Studies; Environmental quality survey; public meeting and discussion; Report writing. Environmental Working experience since 2014
4	U Saw Hti Moo B. E. (Textile), Dip. In GIS	Field studies; Survey of current environmental quality; Public Consultation and discussion; Report writing. Environmental Working experience since 2019
5	U Zaw Bala BBA (MIT), B.A. (English), Dip. In IT (NMC)	Field studies; Survey of environmental quality; Public Consultation. Environmental Working experience since 2023
6	U Hein Htet MB.A., M.Sc. (Sustainability Management), B.A. (IR)	Field studies; Public Consultation, Report writing. Environmental Working experience since 2018
7	U Khun Sai Wan B.E. (Mechanical)	Report writing Environmental Report Writing since 2014
8	Dr. Po Po Maung Ph.D. (Environmental Law), LLM (Cooperativism in Legal, Economic and Social Affairs), LLM (Civil Law), LLB	Report writing Environmental Report Writing since 2014
9	U Aung Chan Min B.A. (Geography)	Field studies; Survey of environmental quality; Environmental Working experience since 2018

Purpose and Scope

Purpose to fulfill the requirement of project proponent to submit EMP of proposed project in getting ECCD for the proposed project by preparation EMP of the proposed project.

Aim to prepare suitable environmental management plan to minimize impacts as low as reasonably practicable level (ALARP) by means of prevention, mitigation, and monitoring measures based on the identified impacts (of both positive and negative) affected to the environment, human use values, quality of life and health, etc., which may come out from the project activities throughout proposed project operation.

Scope to conduct environmental assessment study working process includes project proponent, required laws, policy, legal and institutional framework, project proposal and alternatives, surrounding environment background information and existing environmental quality data, Impact & Risk Assessment & Mitigation Measures, Cumulative Impact assessment, Environmental Management Plan, Public Consultation and information Disclosure, etc., for the preparation of EMP of proposed project.

Scope to prepare EMP for the proposed project preparing process includes Identifying all planned activities and potential unplanned events, establishing an environmental baseline of the project area, Identifying and assessing potentially significant impacts based on existing environmental description, Identifying and recommending mitigation measures to minimize potential impacts, recommending a monitoring plan that can track changes in the environment issues and to ensure compliance with Myanmar legislation, etc., for the submitting of EMP of proposed project.

2. Project's Environmental, Socio-Economic and Where Relevant, Health Policies and Commitments, Legal Requirements and Institutional Arrangements

2.1 Corporate Environmental and Social Policies

Description of applicable laws, decrees, regulations, standards, guidelines and corporate policies related to environmental and social matters of the Project together with the relevant government agencies involved and their roles and responsibilities vis-à-vis the Project is present in this section.

2.2 Applicable Laws & Regulations, Procedures & Guidelines

The Myanmar Government has requirement either for the conduct of necessary environmental examination or assessment for any projects based on scale /size of project. Proponents of major development projects will be required to prepare and formally submit an environmental impact assessment report for approval by government authority (Environmental Conservation Department, ECD). In the meantime, existing legislation includes provisions for various ministries which have their own conservation and protection guidelines.

The investor; LTICL, has the duty to comply with laws, and regulation of host country; the Republic of the Union of Myanmar. The implementation of proposed project will be governed by the Laws, Acts, Rules, Procedures, Policies, and Regulations of the Government of the Republic of the Union of Myanmar; Union Ministries; Ministry of Natural Resources & Environmental Conservation, Ministry of Health & Sports, Ministry of Labor, and the respective local authority; Regional Government of Bago Region, etc. These regulations impose restrictions on the activities to minimize/mitigate likely impacts on the environment. The following are the recent applicable Myanmar laws, rules & regulations relating (but not limited) to the proposed project:

Myanmar Laws, Acts, Rules	Description & relevant section	Date of Legislate
The Myanmar Constitution Law, (2008)	Section No.45, 349(b), 359, 389, 390 (a, b, c, d)	29.05.2008
The Environmental Conservation Law, (2012 Pyidaungsu Hluttaw Law No. 9)	Section No.7(o), 14, 15, 16 (a, b, c), 24, 32	30.03.2012
The Environmental Conservation Rules (2014 MOECAP Notification Order No.50)	Section No.55, 69	05.06.2014
Environmental Impact Assessment Procedure (2015 MOECAP Notification No.616)	Section No.102 – 110, 113, 115, 117	29.12.2015
National Environmental Quality (Emission) Guidelines (2015 MOECAP Order No.616)	Article No.9, 10, 12 & 13, (Appendix A 1 & 2.3.1.4)	29.12.2015
Working with ODS Notification (MOECAP Order No.37/2014) (25th April 2014)	To follow the law	25.04.2014
Prohibit the importation of hydrochlorofluorocarbons (HCFCs / R-22) with less than 2.5 horsepower (HCFCs / R-22 based split and window type air conditioner equipment) to control ozone depletion. Notification No. 28/2020	To follow the law	01.07.2020

The Order on the Operation of Business Relating to Ozone Depleting Substances Notification (No. 37/2014)	To follow the law	25.04.2014
The Ethnic Right Protection Law (2015)	Section No. 5	24.2.2015
The Myanmar Investment Law, (2016)	Section No.40 – 46, 51, 65	18.10.2016
The Myanmar Investment Rules, (2017)	Section No.19, 21 to 23, 26, 35 to 43 and 62 to 67	30.03.2017
Foreign Investment Law (2012)	Section No.9, 10, 17 (a to k), 18 (a to g), 19, 24 (a to f), 25, 26, 35, 39, 40, 41, 43 (a,b), 46	02.11.2012
Natural Disaster Management Law (2013)	Section No.13 to 18,32, 35, 36 and 37	31.7.2013
Prevention of Hazard from Danger of Chemical and Related Substances Law (2013 Pyidaungsu Hluttaw Law No, 28)	Section No.15 (b), 16, 17, 22, 23 (a), 27	26.08.2013
Prevention of Hazard from Danger of Chemical and Related Substances Rules Order No.85/2015-2016	To follow the law	12.01.2016
Restricted Chemicals List Notification Order No.3/2016	To follow the law	30.06.2016
The Forestry Law (2018)	Section No. 12 (a)	
Protection of Biodiversity and Protected Area Law (May 2018)	Section No.25, 31 (a to f), 34 to 36	21.05.2018
The Conservation of Water Resources and Rivers Law (2006)	Section No.8 to 24	02.10.2006
The Factories Act No.65 (1951) (Amended)	To follow the law	20.01.2016

Private Industrial Enterprise Law (State Law & Order Restoration Council Law No. 22/90)	Article No.3, 4(b), 7(c), 13, 27	26.11.1990
Export and Import Law (2012 Pyidaungsu Hluttaw Law No.17)	Section No.5 to 7	17.09.2012
The Labor Organization Law (2011 Pyidaungsu Hluttaw Law No.7)	Section No.17 to 23, 29 to 31, 37 to 42, 43 to 50	11.10.2011
The Labor Organization Rules Order No. (1/2012)	Section No.30, 31 (a to b), 41	29.02.2012
The Settlement of Labor Dispute Law & Rule (2012 Pyidaungsu Hluttaw Law No.5)	Section No.6 to 7, 20, 25, 31 to 33, 35, 36, 45	28.03.2012
The Edited Settlement of Dispute Law (2014)	To follow the law	30.09.2014
The Social Security Law, 2012 (Came into force on 1 April 2014)	Section No.11 (a, b), 16 to 18, 45 (a, b), 48 to 51, 53 to 54 (a), 65 to 67 (a), 69 (b) and 77, 88 (a) (1,2)	31.08.2012
The Social Security Rules (Notification No. 41/2014)	Section No.40, 41, 42 (c), 43, 45 and 47	02.04.2014
The Minimum Wages Law (2013)	Section No.12 (a to e), 13 (a to g), 14 (a to j), 15 (a to b) and 16, 22 (a to e) and 24 (a to b),	22.03.2013
The Minimum Wages Rules (2013)	Section No.43 (a to l)	12.07.2013
The Minimum Wages Notification Order No.2/2018	To follow the law	14.05.2018

The Employment and Skill Development Law (2013 Pyidaungsu Hluttaw Law No, 29)	Section No.5 (a to h), 14 and 15 (a, b), 30	30.08.2013
The Workman's Compensation Act, (1923) (Amended)	To follow the law	11.5.2016
The Leave and Holidays Rules, (2018)	Section No.3, 4, 15, 17 to 21, 23 to 28, 33, 41, 42, 48, 50 and 52	26.4.2018
The Payment of Wages Law (2016 Pyidaungsu Hluttaw Law No.17)	Section No.3 (a to c), 4 (a to g), 5, 7 (a to d), 8, 9, 10 (a to h),11, 12 (a to b), 14, 22 to 23	25.01.2016
Myanmar Fire Brigade Acts (2015 Pyidaungsu Hluttaw Law No.11)	Section No.25, 46-50	17.03.2015
Electricity Law (2014 Pyidaungsu Hluttaw Law No.44)	Section No.11, 14, 18 to 21 (a), 22(a), 23(a), 24 to 27, 28, 40, 44 to 53, 68	27.10.2014
The Public Health Law of the Union of Myanmar, (1972)	Section No.6 to 8, 10	12.01.1972
Occupational Safety and Health Law (2019 Pyidaungsu Hluttaw Law No.8)	Section No.8 to 10, 12 (a to b), 26 to 30, 31 to 33, 34, 36 (b and c), 48 to 50	15.03.2019
The Control of Smoking and Consumption of Tobacco Product Law (2006)	Section No.9	04.05.2006
The Prevention and Control of Communicable Diseases Law (1995)	Section No.8, 9	20.03.1995
The Motor Vehicle Law, (2015)	Section No.4, 5, 8, 11 to 13, 15, 45 to 57	07.09.2015
Petroleum and Petroleum Products Law (2017)	Section No. 9,10,11	01.08.20147
The Commercial Tax Law (2015)	Section No.4, 5, 11 (a to b), 12 (a), 13 (a)	02.04.2015

The Myanmar Insurance Law. (1993)	To follow	23.07.1993
The National Food Law (The State Law and Order Restoration Council Law No.5/97) (3.3.1997) [Amendment]	To follow the law	13.08.2013
The Consumer Protection Law (2019) (Pyidaungsu Hluttaw Law No. 9, 2019)	To follow	15.03.2019
The Myanmar Engineering Council Law (2013)	Section No.34, 37	28.11.2013
The Administration of Vacant, Fallow and Virgin Lands Law (2012)	Section No. 16, 25	30.03.2012
The Yangon City Development Law, (2018 Bago Region Government)	Section No.30, 70 (a, b), 72, 75 (a, b) and 77, 123, 151, 310 to 313, 315 to 319, 322, 323 (m)	28.01.2018
Myanmar National Building Code 2016	To follow	
The Laws & Regulation from Ministry of Planning and Finance, Ministry of Construction and Department of Urban and Housing Development	To follow	
Standing Instructions from Bago Region Government	To follow	
The Standing Instructions from Environmental Conservation Department	To follow	
Standing Orders and Instructions from FDA, MOHS, MIC	To follow	
Rules and Regulations of Dagon Seik Kan Industrial_Zone (1)	To follow	

Any component included in proposed location shall comply with the above Myanmar laws, standards, rules and requirements. Key standards include those related to water quality, air quality, effluent discharge, and protected areas. Compliance is required in all stages of the project including development phase, operation phase, and abandonment.

Proposed Project Operation requires MONREC consent for investment in operation. The EIA Notification of 29th December 2015 defined necessary action to perform environmental survey and reporting for investment in projects depending on the scale of project.

Under Section 3 of the Environmental Impact Assessment Procedure (2015), pursuant to section 21 of the law and Articles 52, 53 and 55 of the Environmental Conservation Rules, all projects and project expansions undertaken by any organization, which may cause impact on environmental quality that, are required to obtain prior permission. This is to be in accordance with section 21 of the Environmental Conservation Law, and Article 62 of the Environmental Conservation Rules, having the potential to cause adverse impacts, that are required to undertake IEE or EIA or to develop an EMP, and to obtain an Environmental Compliance Certificate (ECC) in accordance with this EIA procedure.

Line Tech Industrial Co., Ltd.'s Contract, Manufacturing, and Processing (CMP) system for the production of consumer electronics is required to prepare and submit Environmental Management Plan (EMP) to Ministry of Natural Resources and Environmental Conservation (MONREC), Naypyitaw through Department of Environmental Conservation (ECD), Bago Region in accordance with the EIA Procedure.

In article 76.- For Project types which require EMP according to the Article 55 (a) of the Rules or Article 24 of the Procedure, the Project Proponent may prepare an EMP by itself or may appoint a person or organization who/which is registered according to the Article 18.

In Article 77.- The Project Proponent shall issue a letter of endorsement in a format prescribed by the Ministry according to the Article 63. Such letter shall be submitted to the Department prepared either in the Myanmar language, or in the English language or both. The Project Proponent shall submit the EMP to the Department in both digital form

and complete paper copies, together with the required service fee as prescribed by the Department, and confirming:

- a) the accuracy and completeness of the EMP;
- b) that the EMP has been prepared in strict compliance with applicable laws including this Procedure; and
- c) that the Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP.

The proposed project is commenced since 2019 and already in operation phase with its products less than 10 t/d size/scale in 2022. LTICL proposed project, however, required to prepare EMP as advised by relevant authority which complying Myanmar EIA Procedures.

Policy Legal Framework, including existing applicable laws and rules, International Conventions, Treaties and Agreements, and national & international standards and guidelines

The investor of the proposed project; has the duty to comply with the applicable laws, rules and regulation, procedures, guidelines and instructions (Environmental Conservation, Industrial and Factory Health and Safety, Fire Risk, National Environmental Quality (Emission) Guidelines, IFC guideline, WHO guideline) of host country; the Republic of the Union of Myanmar and understands that.

The proposed project has undertaken to comply with laws, and regulation of host country; the Republic of the Union of Myanmar and has also undertaken to comply International Conventions, Treaties and Agreements, and national & international standards and guidelines without violation. (Detailed in Annexure – 12)

**International Environmental Conventions/Protocols/Agreements Signed/Ratified by
Myanmar**

International Environmental Conventions/Protocols/Agreement	Date of Signature	Date of Ratification	Date of Member	Cabinet Approval Date
United Nations Framework Convention on Climate Change, New York, 1992 (UNFCCC)	11-6-1992	25-11-1994 (Ratification)		41/94 9-11-1994
Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985		24-11-1993 (Ratification)	22-9-1994	46/93
Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 1987		24-11-1993 (Ratification)	22-9-1994	46/93
London Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, London, 1990		24-11-1993 (Ratification)	22-9-1994	46/93
ASEAN Agreement on Transboundary Haze Pollution	10-6-2002	13-3-2003 (Ratification)		7/2003 (27-2-2003)
Parties to the Basel Convention on the Control of transboundary Movements of Hazardous Wastes and their Disposal		6-4-2015 (Ratification)		

The project investor has undertaken to comply the above-mentioned Law, Rules & Regulations, Procedures & Guidelines etc. in accord with their relevant sections about the project and has also undertaken to comply Orders, Instructions, Regional order and instructions issued from time to time.

National Environmental Quality (Emission) Guideline

ECD has instructed LTICL to conduct EMP for the proposed project. LTICL has to comply under BRIC permit issued by Bago Region Investment Committee for the project operation. LTICL has to follow National Environmental Quality (Emission) Guidelines for the overall project operation.

Sr. No.	Project Activity Description	EQEG Specific	Particular
Development Phase			
1.	Factory and Facility Installation (developing)	General	Air Emission Wastewater Noise
Operation Phase			
2. (a)	Factory Process Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis	Semiconductors and Other Electronics Manufacturing (Article 2.3.7.5)	
		General	Air Emission Noise Odor
Abandonment Phase			
3. (a)	Dismantling Process Termination Operation, Removing/Uninstallation and storing equipment/ facilities	General	Air Emission Wastewater Noise

The following EQEG general guideline values, or as stipulated on a case-by-case basis, applying during project operations in Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

Table 2.2.1: Air Emission (General)

Parameter	Averaging Period	Guideline Value µg/m3
Nitrogen dioxide	1-year	40

	1-hour	200
Ozone	8-hour daily maximum	100
Particulate matter	1-year	20
PM10	24-hour	50
Particulate matter	1-year	10
PM2.5	24-hour	25
Sulfur dioxide	24-hour	20
	10-minute	500

Table 2.2.2: Wastewater, Storm water Runoff, Effluent and Sanitary Discharge (General)

Parameter	Unit	Guideline Value
5-day Biochemical oxygen demand	mg/l	50
Ammonia	mg/l	10
Arsenic	mg/l	0.1
Cadmium	mg/l	0.1
Chemical oxygen demand	mg/l	250
Chlorine (total residual)	mg/l	0.2
Chromium (hexavalent)	mg/l	0.1
Chromium (total)	mg/l	0.5
Copper	mg/l	0.5
Cyanide (free)	mg/l	0.1
Cyanide (total)	mg/l	1
Fluoride	mg/l	20
Heavy metals (total)	mg/l	10
Iron	mg/l	3.5
Lead	mg/l	0.1
Mercury	mg/l	0.01

Nickel	mg/l	0.5
Oil and grease	mg/l	10
pH	S.U.	6-9
Phenols	mg/l	0.5
Selenium	mg/l	0.1
Silver	mg/l	0.5
Sulfide	mg/l	1
Temperature increase	°C	<3
Total coliform bacteria	100 ml	400
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

Semiconductors and Other Electronics Manufacturing must follow below guidelines. Specified productions such as production produces from raw materials, general machinery assembling, electro-static protective items production to put it in plastic inner parts of machinery or standard connector production are not include in the list to follow the guidelines, Semiconductors and Other Electronics Manufacturing (Article 2.3.7.5).

Proposed project is Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis production to produce electronic using raw materials imported from oversea. Therefore, proposed project is considered to follow general guidelines only in its operation activity while the guidelines, Semiconductors and Other Electronics Manufacturing (Article 2.3.7.5) is referred with its specific condition.

**Table 2.2.3: Site Runoff and Wastewater Discharges (Effluent Levels)
(EQEG, Article 2.3.7.5 (Semiconductors and Other Electronics Manufacturing))**

Parameter	Unit	Guideline Value
5-day Biochemical oxygen demand	mg/l	50
Adsorbable organic halogens	mg/l	0.5
Ammonia	mg/l	10
Arsenic	mg/l	0.1
Chemical oxygen demand	mg/l	250
Cadmium	mg/l	0.1
Chromium (hexavalent)	mg/l	0.1

Chromium (total)	mg/l	0.5
Copper	mg/l	0.5
Cyanide (free)	mg/l	0.1
Cyanide (total)	mg/l	1
Fluoride	mg/l	5
Lead	mg/l	0.1
Mercury	mg/l	0.01
Nickel	mg/l	0.5
Oil and grease	mg/l	10
pH	S.U. ^a	6-9
Selenium	mg/l	1
Silver	mg/l	0.1
Temperature increase	°C	<3 ^b
Tin	mg/l	2
Total phosphorous	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

^a Standard Unit

^b At the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity, when the zone is not defined, use 100 meters from the point of discharge

Air Emission (EQEG, Article 2.3.7.5 (Semiconductors & Other Electronics Manufacturing))

Table: Air Emission Levels

(EQEG, Article 2.3.7.5 (Semiconductors and Other Electronics Manufacturing))

Parameter	Unit	Guideline Value
Acetone	mg/Nm ^{3a}	150
Ammonia	mg/Nm ³	30
Arsenic and Arsenic compounds	mg/Nm ³	0.5
Hydrogen Chloride	mg/Nm ³	10
Hydrogen Fluoride	mg/Nm ³	5
Inorganic Hazardous Air Pollutants ^b	mg/Nm ³	0.42
Organic Hazardous Air Pollutants ^b	mg/Nm ³	20
Phosphine	mg/Nm ³	0.5
Volatile Organic Compounds ^c	mg/Nm ³	20

^a Milligrams per normal cubic meter at specified temperature and pressure

^b Industry-specific hazardous air pollutants include: Antimony compounds, Arsenic compounds, Arsine, Carbon tetrachloride, Catechol, Chlorine, Chromium compounds, Ethyl acrylate, Ethylbenzene, Ethylene glycol, Hydrochloric Acid, Lead compounds, Methanol, Methyl Isobutyl Ketone, Methylene Chloride, Nickel compounds, Perchloroethylene, Phosphine, Phosphorous, Toluene, 1, 1, 1-trichloroethane, Trichloroethylene (phase-out), and Xylenes

^c Applicable to surface cleaning processes

Table 2.2.4: Noise Emission Level

Receptor	One Hour LAeq (dBA) ^a	
	Daytime (07:00 - 22:00) (10:00 - 22:00 for public holidays)	Nighttime (22:00 - 07:00) (22:00 - 10:00 for public holidays)
Residential, institutional, Educational	55	45
Industrial, commercial	70	70

^a Equivalent continuous sound level in decibels

The Refrigerant to be used in the project is encourage to use no ozone depletion gas for the AC System based on the table mentioned below.

R-32 V/S R-410A V/S R-22 V/S R-290

As we have mentioned above the best quality of the refrigerants depends upon their global warming potential and the ozone depletion potential as well. To clear the difference between all these refrigerants follow the table below.

REFRIGERANT	OZONE DEPLETION POTENTIAL	GLOBAL WARMING POTENTIAL
R-22	MEDIUM	1810
R-32	NO	675
R-134A	NO	1430
R-290	NO	3
R-410A	NO	2088
R-600A	NO	3

(Ref: <https://www.beeindia.in/air-conditioner-refrigerants-r32-vs-r410a-vs-r22-vs-r290/>)

Odor (Environmental Quality Emission Guidelines -EQEG)

The detectability of an odor is a sensory property that refers to the minimum concentration that produces an olfactory response or sensation. An odorant unit is defined as the amount of odorant mixtures which distributed in one cubic meter of air results in odor intensities corresponding to a defined threshold value. The odorant unit is therefore defined by a physiologically measured amount of substance. In practice, offensive odor can only be judged by public reaction to the odor, with the nuisance level being as low as two odorant units and as high as ten odorant units for less offensive odors. An odor assessment criterion of five to ten odorant units is likely to represent the level below which offensive odors should not occur.

Legal Requirements

In line with the National Health Policy NGOs, both national and international, are also taking some share of service provision and their roles are also becoming important as the needs for collaboration in health become more prominent.

World Bank Group Safeguard Policies and regulations applicable to this project

- OP/BP 4.01 Environmental Assessment
- OP/BP 4.10 Indigenous People
- Public Consultations and Information Disclosure
- The World Bank Group Environment, Health and Safety (EHS) General Guidelines
- World Bank Group Good Practice Note: Asbestos: Occupational and Community Health Issues

The following Table summarizes legal requirements and international guidelines relevant to environmental performance for the facilities.

Table 2.2.5: Legal Requirements and International Guidelines

Activity	World Bank Group 1988/95/98 Environmental Guidelines for Production	Project Objectives
Disposal of waste	No specific requirements relevant to Project	Ensure no spillage or disposal of industrial waste into normal waste disposing site. Hazardous Wastes cannot be exported without permission and extensive pre-notification.
Noise	Maximum increase of 3dB(A) above background noise levels, as measured at noise receptors, or conform to the following maximums: Daytime in residential areas: 55 dB(A) Night time in residential areas: 45 dB(A)	Maximum increase of 3dB(A) above background noise levels, as measured at noise receptors, or conform to the following maximums: Daytime in residential areas: 55 dB(A) Night time in residential areas: 45 dB(A)

International Air Quality Guidelines and Standards

In terms of ambient air quality standard, the relevant guidelines and standards were used to compare with the findings. The following table presents the relevant air quality guidelines and standards.

Table 2.2.6: International ambient air quality standards/guidelines

Pollutant	Averaging Period	Limit/Guideline Value/ Standards ($\mu\text{gm-3}$)	Relevant Standards/ Guidelines
NO ₂	1 year	40	WHO Guideline
		100	NAAQS (USEPA)
	24 hours	100	NAAQS (USEPA)
		150	World Bank
	1 hour	200	WHO Guideline
SO ₂	1 year	50	WHO Guideline
		50	World Bank
	24 hours	20	WHO Guideline
		80	NAAQS (USEPA)
		125	World Bank
	1 hour	365	NAAQS (USEPA)
CO	8 hours	10,000	WHO Guideline
		10,000	World Bank
	1 hour	30,000	WHO Guideline
		40,000	NAAQS (USEPA)
PM 2.5	1 year	10	WHO
	24 hours	25	WHO
		35	NAAQS (USEPA)
PM ₁₀	24 hours	150	NAAQS (USEPA)
		50	WHO
TSPM	24 hours	100	WHO
CO	8 hours	9 ppm (8hr)	USEPA (NAAQ)

WHO Drinking Water Guideline (Geneva-1993)

World Health Organization Drinking Water guideline value (Geneva-1993) are shown in below Table respectively. LTICL has to follow these following Guidelines for the overall project operation.

Table 2.2.7:World Health Organization Drinking Water guideline value (Geneva-1993)

Test	Unit	Maximum Permissible Limit
Colour (TCU)	Pt-Co	15
Turbidity	NTU	5
Total Dissolved Solvent	mg/l	1000
Chloride	mg/l	250
Lead	mg/l	0.01
Total Hardness (as CaCO ₃)	mg/l	500
Iron	mg/l	0.3
pH	S.Uc	6.5 – 8.5
Sulphate	mg/l	200
Zinc	mg/l	5
Calcium	mg/l	200
Magnesium	mg/l	150
Nitrate	mg/l	50
Arsenic	mg/l	≤0.01

LTICL undertake to commit Environmental Management Plan for the Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Project Operation which complies mainly with Myanmar Laws & Regulations, and Procedures & Standing Instructions.

Guidelines

LTICL undertake to commit Environmental Management Plan for the Proposed Project Operation complies with National Environmental Quality Emission Guideline out of enacted Myanmar Laws & Regulations, and Procedures & Standing Instructions, MONREC

(former MOECAAF). There will have other procedures and guidelines in terms of interest in relevant area such as social and cultural, labor, regional, industrial, etc.

The LTICL Fire & Emergency Response Plan has been made available which compliance with Fire Fight Department require the reporting of fire.

2.3 Contractual and other Commitments

According to the Article 77, the Project Proponent issues undertaking letter of endorsement which confirming that:

- a) the accuracy and completeness of the EMP;
- b) that the EMP has been prepared in strict compliance with applicable laws including this Procedure; and
- c) that the Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP.

LTICL commit to conduct Environmental Conservation Program in collaboration with Environmental Experts as necessary. In addition, LTICL commit to comply with Environmental Laws, Procedures, Orders, & Instruction issued from MONREC.

Project Proponent commits to perform its operation under applicable Myanmar Laws throughout project period (developing phase, operation phase, decommissioning, closure and post-closure).

Project Proponent commits to implement at all time fully with the commitments, mitigation measures, and plans in the EMP Report.

Project Proponent commit to perform CSR activities with reserved CSR budget (2% of annual net income money is planned) for the sustainable development of the local community but not limited to.

Line Tech Industrial Co., Ltd. shall be responsible for the implementation of environmental management and monitoring of proposed project as follows:

The investor understands importance of the project related environmental management system and undertaken to perform Environmental Management Plan of Proposed Project throughout project period

The investor to ensure Environmental Management and Monitoring Program performing with separate environmental budget as described in approved EMP Report.

Submitting environmental monitoring report six-monthly to ECD

Planning and implementation of CSR activities

To set up social welfare plan such as staff medical benefits, transport arrangement, personal skill development training program and internal knowledge sharing sessions and exercises covering environmental, health, safety, firefighting, emergency response drill, and anomaly reporting, etc.

To carry out fire safety assessment and ensure adequate and appropriate fire safety measures for employees in collaboration with Myanmar Fire Services Department (MFSD).

LTICL proposed project required to prepare EMP with (states to comply with requirements in conducting environmental conservation activities for proposed project mentioned below and report submit directly to Ministry of Natural Resources and Environmental Conservation (MONREC) through Bago Region ECD as advised by relevant authority which complying Myanmar EIA Procedures.

- (d) LTICL has to provide all proposed project data and has to use the systems which may cause minimum environmental impact only as low as reasonably practicable (ALARP) to reduce potential environmental, socio-eco, and health impacts in its proposed project activities. LTICL has to comply strictly in its commitments which including commitment to conduct Corporate Social Responsibility (CSR) activities by using 2% of annual net benefits.
- (e) LTICL has to prepare Environmental Management Plan (EMP) based on results come out from environmental assessment for proposed project, and LTICL has to comply as prepared EMP. Prepared EMP which compiled with Project Operation & Maintenance Plan that affecting zero (or) minimum impact to environment and socio-eco of local people, Waste (Solid/Water) Management Plan, Monitoring Plan, Budget for Environmental Conservation Tasks according to EIA Procedure and comply with it.

- (f) LTICL has to follow Myanmar enacted environmental laws, rules, regulations, guidelines (Environmental Conservation Law, Procedures, Environmental Impact Assessment Procedures, National Environmental Quality (Emission) Guidelines (NEQEG) in its IEE, EIA, & EMP preparations and has to submit the fulfilled form together with reports required by the submission procedure.

Project Component's Environmental and Social Commitment

Environmental and Social Commitments

LTICL will commit environmental and social as mentioned in the Environmental and Social Policy. There will be separate budget allotted for the implementation in environmental management plan of LTICL throughout project period. Initial Environmental budget is estimated 3000 USD/year and budget allotment will be reviewed yearly basis to suit with requirements.

In addition, LTICL has undertaken to spend 2% of annual net profit in CSR program. The proposed project area is placing within Industrial Zone, Bago Region and can be considered as partially developed based on current living standard status. LTICL plans to cooperate with local community as part of CSR programs to be supported by LTICL is as below:

- Providing in Education Sector by funding in school library, stationary, exercise book, etc., for the students from local community
- Providing in health care service sector by funding in clinic, doctor & medicine for the patients from local community

LTICL has undertaken to operate the proposed project operation on the developed granted land under permit agreement between land developer; and proposed project proponent; Line Tech Industrial Co., Ltd. (LTICL).

LTICL has undertaken to operate the proposed project operation on the granted land under BRIC permit approval.

LTICL has undertaken to operate the proposed project operation on the granted land under License (TBA) for the proposed project operating by Line Tech Industrial Company Limited (LTICL). (Annexure. - 4)

LTICL has undertaken to perform EMP on project throughout the project period (development, operation & abandonment phases) prepared by third party study team according to existing relevant Laws & Regulation of Myanmar. (Annexure – 12)

LTICL has undertaken to ensure clear from Public & Occupational Health and Safety issues throughout its proposed project operations to operate Manufacturing of Consumer Electronic Manufactory according to Myanmar Occupational Health & Safety Law for the proposed project. (Annexure – 11)

LTICL has undertaken to ensure clear from electricity safety issues according to 2014 The Electricity Law for alternative electricity power utilization from its own standby generator. (Annexure – 12)

LTICL has undertaken to follow standing instruction from government officials; local, regional, union level.

LTICL has undertaken to apply prepared effective management systems; environmental management plan, natural disaster & emergency responding management system, fire safety & responding system, social & cultural awareness programs, throughout project period. (Annexure – 11)

LTICL has undertaken to pay tax and charges as defined under Myanmar Tax Laws and promise to undertake responsibility without fail. (Annexure – 12)

LTICL has undertaken to submit EMP performance report to Regional Office of ECD (Bago) in 6 monthly (or) as instructed by Head Office of ECD (Nay Pyi Taw).

Commitments

Commitments by Line Tech Industrial Company Limited

LTICL has undertaken to perform LTICL EMP for the project operation; Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Business project, for all period (development, operation & abandonment) prepared according to EIA procedure section 62 and existing relevant Laws & Regulation of Myanmar.

Line Tech Industrial Co., Ltd. commits in respect of the proposed project that the EMP report:

- has been presented in a manner which is accurate and complete:
- has been prepared in strict compliance with applicable laws including the Environmental Impact Assessment Procedure, and
- Proposed Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP Report. (Natural Disaster & Emergency Response Plan, Fire Safety Procedure and Action Plan, Social Welfare Program, Waste Management Plan.
- will be reviewed and revised as/when instructed to do so by official authority to suit with the changing modern technology in industry
- covering to minimize and mitigate socio economic impacts which may cause by project abandonment activities

Project proponent; LTICL, has confirmed that above mentioned facts and data are correct. (Signed commitment letter is also presented in Attachment).

Commitment by Third Party

Neo Tech Myanmar Company Limited commits in respect of the proposed project that the EMP report has been:

- presented in a manner which is accurate and complete:

- prepared in accordance with the requirements of applicable laws, consistence with Environmental Impact Assessment Procedure, and
- prepared under the guidance of the Ministry of Natural Resources and Environmental Conservation (MONREC).

Third Party; Dr. Zin Min and Consultants, has confirmed that above mentioned facts are correct. (Signed commitment letter is also presented in Attachment).

2.4 Institutional Arrangements

The following personnel have been identified as key person to the EMP implementation:

- Managing Director – Responsible for performance of LTICL EMP
- Director – Responsible for effective implementation of the LTICL EMP
- Factory Manager – Management Champion for LTICL EMP

The operational - level for the environmental management plan will be responsible for overall environmental management of the proposed project for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis. It will be headed by a Managing Director and consist of at least Fifteen person-team of marketing, operation, engineering, administrative & financial, and social/environmental.

Proposed Project EMP will be included in contract terms and conditions to ensure Awarded Contractor following Project EMP accordingly and LTICL will be monitored during developing phase. Contractor HSE Representative will liaise with LTICL Factory Development Site Manager to achieve set EMP goals.

There will be institutional framework set with categorized level to educate the person involved for the implementation of EMP for the proposed Project, as described below in brief and detailed in Section 8.2:

Category 1: Customer / Visitor – Environmental Awareness

Category 2: - General Environmental Awareness

Category 3: Specific Environmental Awareness

Category 4: Specific Environmental Training

2.5 Project's Environmental and Social Standards and Codes of Practice

Line Tech Industrial Company Limited Environmental and Social Policy

LTICL has prepared environmental and social policy for the operations operating by the proponent within the country. The following policy is presented as a Draft and is subject to review and confirmation by LTICL.

LINE TECH INDUSTRIAL COMPANY LIMITED (LTICL) commits to an objective of environmental excellence on the basis that this approach is:

- essential to efficient business performance,
- recognizes the company's role and responsibilities in the broader community,
- acknowledges it's environmental & corporate social responsibility commitments

"Environmental Conservation and Social Policy"

- It will take an approach that promotes sustainable development in decision making for project operation.
- It will be managed to minimize the use of human and material resources in all activities and to avoid losses.
- It will be managed to create a clean environment and a good workplace for improving the living standards of employees and occupational safety and health.

The LTICL environmental management plan, emergency response & fire safety procedures, occupational health & hygiene procedures, Natural disaster response management Plan will be made available which reference to Myanmar government requirement for the reporting.

3. Project Description and Alternatives

This section describes the Project description in reasonable detail with description of the project size, installations, technology, infrastructure, production processes, use of materials and resources, generation of waste, emissions and disturbances together with overview maps and site layout maps (using aerial photos and satellite images in proper scale) for each Project phase and, where relevant, project alternatives for each Project phase.

3.1 Project Background

LTICL is aimed to continue operation by total invested capital equivalent in Myanmar Kyat of USD 1.351 Million (inclusive amount of foreign capital USD 0.330 Million brought in within 1 year from the date of issuance of BRIC permit) for “Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis”.

The proposal of proposed Project has been submitted by identified Director of LTICL for approval from Bago Region Investment Committee (BRIC) in 29th November 2019. The proposed project has been approved with Permit Order No. BGO-031/2019 by Bago Region Investment Committee (BRIC) in 20th December 2019.

Proposed Project development has been commenced after MIC approval and it is currently commenced for pre-operation phase in Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis by wholly foreign owned Line Tech Industrial Company Limited, according to approved BRIC permit.

The proposed project is commenced since 2019 in the rented location; Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region, Myanmar, which mentioned in the BRIC permit under land & building facility rent/purchase agreement with landlord and already in operation phase with its products in 2022.

LTICL is currently operating its operation in the preferred location; Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region, Myanmar.

3.2 Project Implementation Schedule

Proposed project can be considered as 3 phases; developing phase, operating phase, and abandonment phase. Proposed Project has been developed in 2019 (mainly for installation of facility equipment in existing building) after MIC approval and operation is ongoing for 20 years period according to BRIC permit (Annexure – 2). Abandonment process will be included after completion of agreed project period or termination of project to ensure complying as mentioned in the rental contract without fail from both parties. The implementation of the project operation has been undertaken in 2019.

LTICL is willing to operate its proposed project continuously and development phase is set 1 year after MIC approval (Annexure - 2). Abandonment process will be included after completion of permitted project period or termination of project by either operator; LTICL or officials to ensure operator complying with enacted Myanmar laws and regulations.

Proposed project can be considered as 3 phases; developing phase, operating phase, and abandonment phase. Proposed Project development has been commenced in 2019 (mainly for installation of facility equipment) after BRIC approval and operation is planned for 20 years period according to BRIC permit. Abandonment process will be included after completion of project period or termination of project to ensure complying as mentioned in the rental contract without fail from both parties.

Project implementation schedule for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis is present in below table.

Table 3.2.1: Project implementation schedule

Phase	Commence	Duration	Note
Development	2019 Aug	1 Year	100% completed
Operation	2020 Jan	20 Year	On going
Abandonment	TBA	3-6 Month	N/A

3.3 Project Location, Overview Map and Site Layout Maps

Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Project location is at area 1.4 Acre ($17^{\circ}16'23.84''\text{N}$, $96^{\circ}27'33.80''\text{E}$) (above sea level 90 ft) in Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region. Project Overview Map and Layout Maps are shown in below Figures.

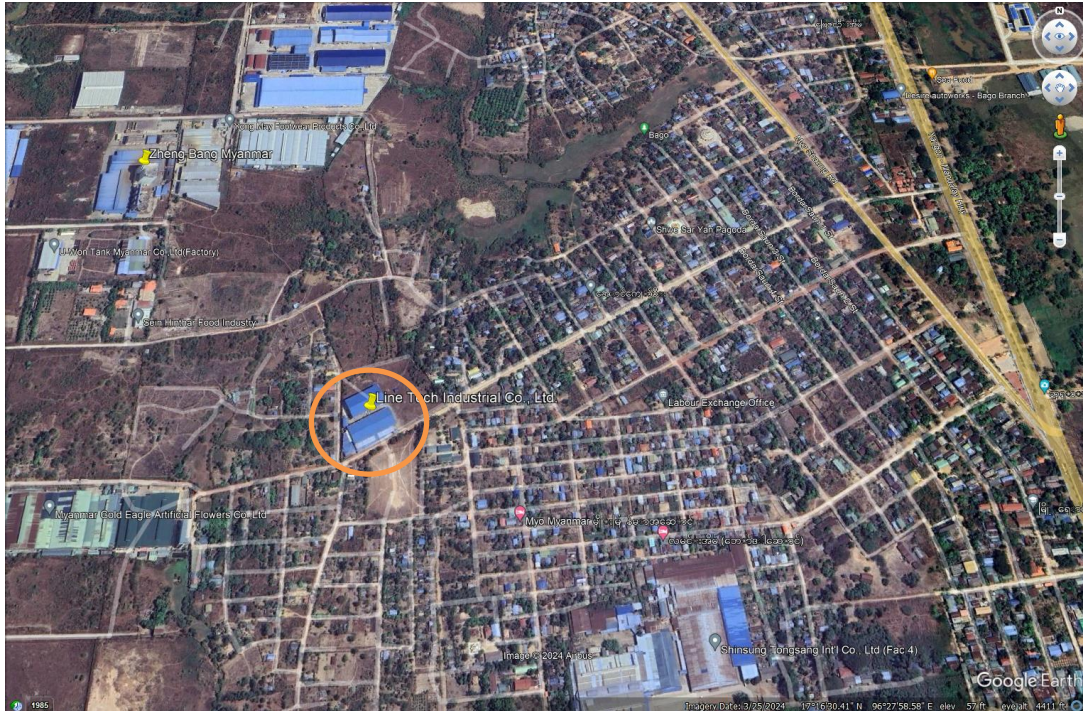


Figure 3.3.1: Overview Map of Proposed Project Location



Figure 3.3.2: Layout Map of Proposed Project (17°16'23.84"N, 96°27'33.80"E)

3.4 Project Land Use

Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region has been established as granted Townland. The land area is cleared by landlord.



Figure 3.4.1: Cleared Reserved Land Area Map in March 2019

The proposed project area excludes from forest reserve area and other local community land usage. Therefore, the proposed project area is cleared from land acquisition issue. The preferred granted industrial land is selected as alternative location for the proposed project; Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

Proposed granted land area (1.4) locating at Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region is selected for the proposed project; Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

proposed project master layout plan and the existing land use layout in the concerning area covers 1.4 Acre (51700 square feet) has been described in below Table and Figures.

Existing & Proposed Project Land Use in the Selected Land Area (1.4 Acre)

Land Use	Area in Acre	% To Total Area
Factory Building (2 nos.)	1.4	100.00
Generator House (1 no.)		
Staff House (1 no.)		
Guard House (1 no.)		
Car Parking (1 no.)		
Total	1.4	100.00

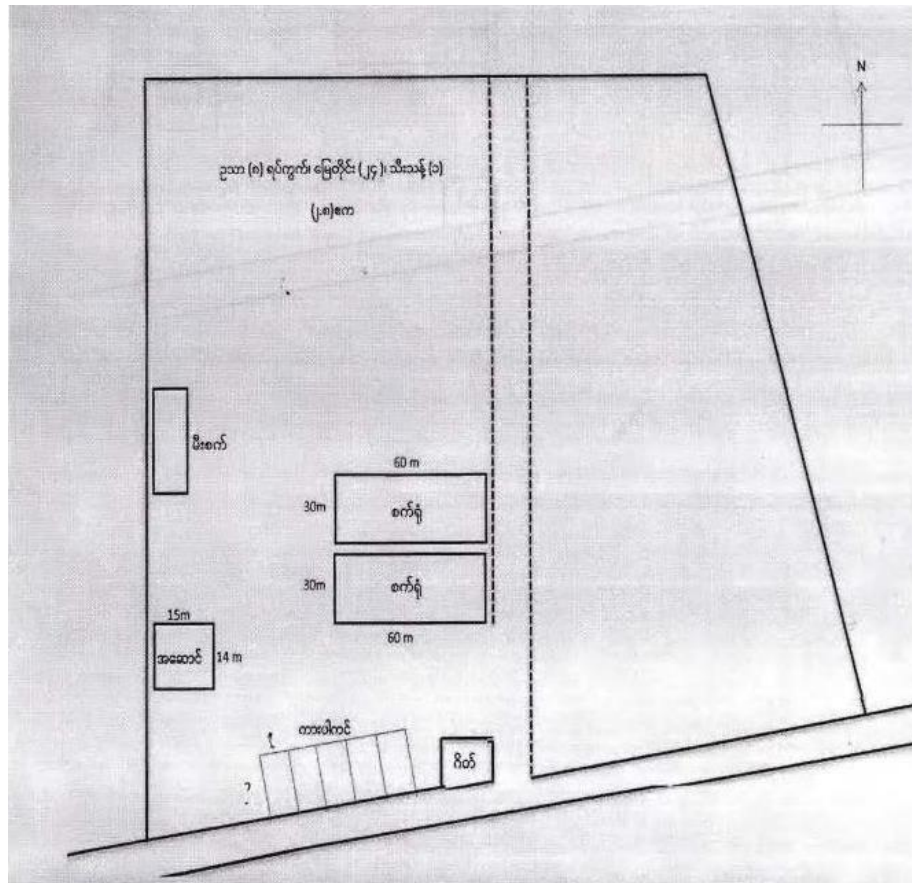


Figure 3.4.2: Proposed Project Land Use Master Layout Plan in the selected Land Area



Figure 3.4.3: Project Existing Land Use Layout Map in the preferred Land Area in March 2024

3.5 Project Component

3.5.1 Building & Facility Installation

Project development has been commenced in 2019 at preferred land area and completed as scheduled within One year. Now project is in operation stage and manufacturing is ongoing. Selected design and master layout plan prepared to suit with proposed project has been done in pre-construction stage. Prepared project building/ facility are listed as below:

Table: Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Building/Facility Master Plan Descriptions

Sr. No.	Facility/Building Description
1.	Factory Building (2 nos.) + Staff House (1 no.) + Generator Room (1 no.) + Guard House + Car Parking + Groundwater Storage Tank + Concrete Fence + Concrete Floor
2.	Electrical & Auto Machinery Facility Installation
3.	Power Supply System for Normal Operation – 500 KVA 3PH 50, Transformer (1 no.) from YESB, MOEE Alternative Power Supply System (Back Up only)– 200 KVA Generator (2 nos.)

4.	Domestic use Water Supply System Water Source – Groundwater (1 nos.) Operation – Compressor Pump for 2-inch tube well and pump for storage tank Storage - Utility Water / Fire Water Tank System Drinking Water – Current Practice and plan to use approved drinking water products only
5.	Storm & rainwater drainage direct connect to public drain
6.	Wastewater treatment system (filtering) before dispose to public drain
7.	Sewage Treatment System (Septic Tank)
8.	General Solid Waste Management System (Collect at Waste Storage Area and Send to BTDC); Temporary waste storage area (1 no.)
9.	24 Hour Security (Guard) Service
10.	Fire Emergency & Disaster Management System

The LTICL proposed project development phase for construction and facility installation is completed as per schedule. Proposed Project Operation facility is installed with imported & locally purchased Machinery & Equipment mentioned below table in the building as per Process Master Plan (above Table) and (Annexure – 8) (Ref: BRIC proposal)

Table 3.3.5.1.1: List of Machinery & Equipment (to be imported from China)

Sr. No.	Machinery and Equipment Description	Unit	Quantity
1.	Horizontal Injection Machine (13 Nos.)	Lot	1
2.	Stand Injection Machine (15 Nos.)	Lot	1
3.	Blister Machine (5 Nos.)	Lot	1
4.	High Frequency Machine (3 Nos.)	Lot	1
5.	Pad Printing Machine (4 Nos.)	Lot	1
6.	Ultrasonic Machine (4 Nos.)	Lot	1
7.	Auto Wire Cutting Machine (2 Nos.)	Lot	1
8.	Wire Stripping Machine (10 Nos.)	Lot	1
9.	Mini Punching Machine (10 Nos.)	Lot	1
10.	Terminal Crimping Machine (6 Nos.)	Lot	1
11.	Cooling Water Machine (2 Nos.)	Lot	1
12.	Mold Temperature Machine (3 Nos.)	Lot	1
13.	Screw Air Compressor (2 Nos.)	Lot	1

Sr. No.	Machinery and Equipment Description	Unit	Quantity
14	Air Storage Tank (2 Nos.)	Lot	1
15	Freeze Dryer Machine (2 Nos.)	Lot	1
16	Mold Storage Rack MSG (3 Nos.)	Lot	1
17	Assembly Line 10-15 Meter (5 Nos.)	Lot	1
18	Power Generator 350 KW (1 Nos.)	Lot	1
19	Baking Line 10-15 Meter (1 No.)	Lot	1
20	Mixing Machine BLG (3 Nos.)	Lot	1
21	Plastic Crush machine FSG (2 Nos.)	Lot	1
22	Cooling Tower LCT (1 No.)	Lot	1
23	Hydraulic Elevator WL-A (1 No.)	Lot	1
24	Engine Forklift HELI (1 No.)	Lot	1
25	Forklift HC-A (6 Nos.)	Lot	1
26	Water Cabinet (2 nos.)	Lot	1

The pictures of machinery and equipment are shown in Annexure - 6

Table 3.5.1.5: List of Construction Materials (to be imported)

Sr. No.	Description	Unit	Quantity
1.	Structural Steel (Various Size) (400 Ton)	Lot	1

Table 3.5.1.6: List of Office Equipment (to be purchased locally)

Sr. No.	Description	Unit	Quantity
1.	Computer (10 Set)	Lot	1
2.	Fan USD17 (100 Set)	Lot	1
3.	Table and Chair (10 Set)	Lot	1
4.	Air Conductor (15 Set)	Lot	1
5.	Water Cooler (10 Set)	Lot	1

3.5.2 Annual Raw Material required for Project Operation

Annual Raw Material will be required for Project Operation as listed below:

Table 3.5.2.7: List of Raw Material (to be imported from Taiwan, China, Malaysia, India)

Sr. No.	Description	Unit	Quantity				
			Y-1	Y-2	Y-3	Y-4	Y-5
1.	Brass Copper Roll	Kg	200,000	200,000	200,000	200,000	200,000
2.	Iron Roll	Kg	200,000	200,000	200,000	200,000	200,000
3.	Phosphor Copper Roll	Kg	200,000	200,000	200,000	200,000	200,000
4.	Stainless Steel Roll	Kg	200,000	200,000	200,000	200,000	200,000
5.	ABS	Kg	200,000	200,000	200,000	200,000	200,000
6.	ABS + PE	Kg	200,000	200,000	200,000	200,000	200,000
7.	AS	Kg	200,000	200,000	200,000	200,000	200,000
8.	HDPE	Kg	200,000	200,000	200,000	200,000	200,000
9.	HIPS	Kg	200,000	200,000	200,000	200,000	200,000
10.	PC	Kg	200,000	200,000	200,000	200,000	200,000
11.	PE	Kg	200,000	200,000	200,000	200,000	200,000
12.	PET	Kg	200,000	200,000	200,000	200,000	200,000
13.	PMMA	Kg	200,000	200,000	200,000	200,000	200,000
14.	POM	Kg	200,000	200,000	200,000	200,000	200,000
15.	PP	Kg	200,000	200,000	200,000	200,000	200,000
16.	PS	Kg	200,000	200,000	200,000	200,000	200,000
17.	PVC	Kg	200,000	200,000	200,000	200,000	200,000
18.	TPE	Kg	200,000	200,000	200,000	200,000	200,000
19.	Modular Plug	Kg	200,000	200,000	200,000	200,000	200,000
20.	Material Terminal	Kg	200,000	200,000	200,000	200,000	200,000
21.	Computer Plug	Kg	200,000	200,000	200,000	200,000	200,000

3.5.3 Manufacturing Process

- **Manufacturing Process of Computer Cable Products**
 - Wire Stripping
 - Copper Wire Stripping
 - Soldering

- Overmolding
- Testing
- Packing

- **Manufacturing Process of Telephone Cable Products**
 - Stripping
 - Wire Installation to the Plug
 - Crimping
 - Testing
 - Packing

The Manufacturing Process Flow Charts are shown in Annexure – 6

3.5.4 Annual Manufacturing Plan

LTICL aims to operate Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis and expect to earn in Oversea Market targeting for international clients (Ref: MIC proposal)

Annual Production Plan for the Products of Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis are shown below Table. (Ref: BRIC Proposal)

Table 3.5.4.1: List of Products Plan (to be exported to USA, Japan, China, Europe Countries, Malaysia, Singapore, Korea, and Asia Countries)

Sr. No.	Description	Unit	Quantity (in Thousand Unit)				
			Y-1	Y-2	Y-3	Y-4	Y-5
1.	Computer Cable	Pcs.	600	600	600	600	600
2.	Telephone Cable	Pcs	300	300	300	300	300
3.	LED Tealight	Pcs	12,000	13,200	13,200	13,800	13,800
4.	LED Waterproof Tealight	Pcs	1,200	1,320	1,320	1,380	1,380

Sr. No.	Description	Unit	Quantity (in Thousand Unit)				
			Y-1	Y-2	Y-3	Y-4	Y-5
5.	LED Tealight SATA	Pcs	1,200	1,320	1,320	1,380	1,380
6.	LED Tealight Butterfly	Pcs	1,200	1,320	1,320	1,380	1,380
7.	LED Tealight Transparent	Pcs	1,200	1,320	1,320	1,380	1,380
8.	LED Solar Tealight	Pcs	600	660	660	690	690
9.	LED Votive Tealight Candle	Pcs	1,200	1,320	1,320	1,380	1,380
10.	LED Plastic Skull Candle Light	Pcs	1,200	1,320	1,320	1,380	1,380
11.	LED Pillar Candle Light	Pcs	1,200	1,320	1,320	1,380	1,380
12.	LED Taper Candle	Pcs	1,200	1,320	1,320	1,380	1,380
13.	LED Halloween Taper Candle	Pcs	1,200	1,320	1,320	1,380	1,380
14.	LED ER Taper Candle	Pcs	1,200	1,320	1,320	1,380	1,380
15.	LED Crystal Lamp	Pcs	1,200	1,320	1,320	1,380	1,380
16.	LED Lantern Light	Pcs	1,200	1,320	1,320	1,380	1,380
17.	LED Lantern Light	Pcs	1,200	1,320	1,320	1,380	1,380
18.	BO String Light	Pcs	1,200	1,320	1,320	1,380	1,380
19.	Lamp String Datab Cable	Pcs	240	264	264	276	276
20.	LED Necklace Light	Pcs.	1,200	1,320	1,320	1,380	1,380
21.	Light Up Bulb Earrings	Pcs	1,200	1,320	1,320	1,380	1,380
22.	LED Necklace Light	Pcs	240	264	264	276	276
23.	Luminous Mask	Pcs	1,200	1,320	1,320	1,380	1,380
24.	Light Helmet	Pcs	1,200	1,320	1,320	1,380	1,380
25.	Emergency Charger	Pcs	600	660	660	690	690
26.	Car Charger	Pcs	600	660	660	690	690
27.	Plastic Mobile Phone Cover	Pcs	600	660	660	690	690
28.	Mobile Phone Stand	Pcs	1,200	1,320	1,320	1,380	1,380
29.	Mobile Phone Stand	Pcs	1,200	1,320	1,320	1,380	1,380
30.	Headset	Pcs	1,200	1,320	1,320	1,380	1,380
31.	Printing Headphones	Pcs	1,200	1,320	1,320	1,380	1,380
32.	Audio	Pcs	600	660	660	690	690
33.	Light Sound	Pcs	240	264	264	276	276
34.	Watch Sheath	Pcs	600	660	660	690	690
35.	Solid Watch Band	Pcs	600	660	660	690	690
36.	Watch Stents	Pcs	600	660	660	690	690
37.	Audio Splitter	Pcs	240	264	264	276	276
38.	Audio Line	Pcs	1,200	1,320	1,320	1,380	1,380

Sr. No.	Description	Unit	Quantity (in Thousand Unit)				
			Y-1	Y-2	Y-3	Y-4	Y-5
39.	Luminescent Data Cable	Pcs.	600	660	660	690	690
40.	Induction Lamp	Pcs	600	660	660	690	690
41.	Flashlight	Pcs	120	132	132	138	138
42.	Flashlight	Pcs	120	132	132	138	138
43.	Book Reading lamp	Pcs	240	264	264	276	276
44.	Night Light	Pcs	600	660	660	690	690
45.	USB Light	Pcs	600	660	660	690	690
46.	Holding a Fan	Pcs	240	264	264	276	276
47.	Mini Desk Fan	Pcs	240	264	264	276	276
48.	Holding a Fan	Pcs	240	264	264	276	276
49.	Solar Flower Electronic Gift	Pcs	240	264	264	276	276
50.	Mobile Phone Gift	Pcs	240	264	264	276	276
51.	Cliop Sound Girt	Pcs	600	660	660	690	690

The pictures of products are shown in Annexure - 6

3.5.5 Annual Chemical/Fuel Consumables

Annual chemical/fuel consumption from project operation and maintenance activity estimated majority which may come out from transportation activity by using vehicles as most consumption while other activities (i.e., fuel consumption for backup generator operation) may be considered low consumption as follows and actual consumption will be updated in future routing (six monthly) Environmental Report to ECD.

Table 3.5.5.1: Annual Chemical/Fuel Consumption (Unit – Gallon)

Sr. No.	Chemical/Fuel Description	Annual Consumption
1.	Octane (30x3x12)	1,080
2.	Premium Diesel (30x3x12)	1,080
3.	Engine Oil/Gear Oil/Grease/Lubricant (5x2)	10

3.5.6 Annual Power Consumption

Annual power consumption from project operation is mainly from power supply source from National Power Line via installed private transformers under permission of Yangon

Power Supply Corporation and consumed electricity from national power grid will be counted monthly as unit for billing purpose. LTICL has installed Diesel Generator as backup power supply system to be used for public area lighting purpose when main power supply system does not work temporarily. LTICL commits to pay timely for monthly electricity bill settlement and annual power consumption is estimated as follows and actual consumption will be updated in future routing (six monthly) Environmental Report to ECD.

Table 3.5.6.1: Annual Power Consumption (Unit – Meter Unit)

Sr. No.	Power Source Description	Consumption (Unit)
1	Transformer (1 no.) Main Source for Daily Normal Operation Power Supply from National Grid Line	70,180 2
2	Diesel Generator Set (2 nos.) Alternative Source for Backup Essential Operation Power Supply from LTICL	100



Figure 3.5.6.1: Transformer (1 No.) and Diesel Generators (2 Nos.)

3.5.7 Annual Water Consumption

Annual water consumption from project operation is baking operation use and utility use. Water resources are ground water via 2 inches tube-well made with BTDC permission. Ground water will be pumped out to storage tank, treat, and then utilize for daily domestic usage and operation utility water usage whilst reserving for emergency usage for firefighting. Annual water consumption is estimated as follow and actual consumption will be updated in future routing (six monthly) Environmental Report to ECD.

Table 3.5.7.1: Annual Water Consumption (Unit – Gallon)

Sr. No.	Water Usage Description	Annual Consumption
1.	Domestic Usage from worker (180x365x2)	131,400
2.	Operation Utility Water Usage (500x365)	182,500
3.	Firewater Usage Reserved for Firefighting (Training & Emergency)	45,000



Figure 3.5.7.1: Ground water Source and Ground Water Storage Tank

3.5.8 Investment Budget for Proposed Project

LTICL invests for proposed operation using total capital USD 1.351 Million (Six Hundred Thousand) equivalent to Myanmar Kyat (which inclusive of USD 0.330 Million to be

brought in within 1 Year of BRIC permit approval) for proposed project, Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

3.5.9 Man Power Consumption

The proposed Project is already in operation phase. However, it can be considered as transition phase of project pre-operation phase; to relocate existing Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis facility installation by awarded contractor with man power (estimated 50 nos.) of contractor in short term, and operation phase; to operate operation activities and by using Local human resources; local personnel manpower (174 nos.), and foreign personnel man power (6 nos.) of LTICL in long term. Permanent Man Power of the Project will be mainly for normal operation of the LTICL and required man power has been estimated in below Table 4.10. LTICL will pay the tax for the employee; who earns 4,800,000 Kyat per annum and above, as defined by local authority of Taxation Department. (Annexure – 7)

Table 3.5.9.1: Proposed LTICL Operation Workforces

Sr. No.	Staff Description	No. of Employee	Sr. No.	Staff Description	No. of Employee
(A)	LOCAL PERSONNEL		(B)	FOREIGN PERSONNEL	0
1	HR Manager	1	1	General Manager	1
2	Supervisor	6	2	Vice General manager	3
3	Engineer	5	3	Senior Manager	1
4	Clerk	5	4	Manager	
5	Assistant	5			
6	Worker	150			
7	Translator	2			
Total Local Personnel		174	Total Foreign Personnel		6

3.5.10 Summary of Project Description

Summary of Project description for each Project phase is present in here.

D. Development Phase

Category	Description
Project Size & Location	Land area (1.4) Acre (17°16'23.84"N, 96°27'33.80"E) in Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township
Investment	US\$1.351Million
Installations	Imported Machinery & Equipment from China
Technology	Myanmar Standard Building Constructing
Infrastructure	2 Factory Building, 1 Staff House, 1 Generator Room, 1 Security Gate, 1 Roofed Car Park, Brick wall fence, drain, EPC Power Supply, Power Generator, Self-water supply from tubewell groundwater, Water Treatment System
Development Processes	Land Clearance, Building Construction, Facility Installation, Commissioning
Use of Material and Resources	Construction Material to be imported Structural Steel (Various Size), Office Equipment (Local) Ground Water, Power Generator
Generation of Waste	General Construction Waste, discharge water
Emissions	Smoke, Particulate Matter and Dust
Disturbances	Noise

Land rented in 2019. Construction commenced in December 2019. Purchase of key machinery commenced in May 2020.

E. Operation Phase

Category	Description
Technology	Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis (by Auto Machinery)
Man Power	180 – 250 Nos.
CMP Operation Process	Import Raw Materials from Taiwan, China, Malaysia, India. Manufacturing of Consumer Electronic on Contract Export Final Products to USA, Japan, Europe Countries, Malaysia, Singapore, Korea and all Asia Countries according to Contract
Manufacturing Processes	Manufacturing Processes of Computer Cable (by auto machinery) Wire stripping – Copper wire stripping – Soldering – Over-molding – Testing – Packing
	Manufacturing Processes of Telephone Cable (by auto machinery) Stripping – Wire installation to the plug – Crimping – Testing – Packing
Use of Material and Resources	Raw Materials imported from Taiwan, China, Malaysia, India.

Category	Description
	Brass copper roll, Iron roll, Phosphor copper roll, Stainless steel roll, ABS, ABS+PE, AS, HDPE, HIPS, PC, PE, PET, PMMA, POM, PP, PS, PVC, TPE, Modular Plug, Material terminal, Computer Plug
Maintenance	Maintenance for project's assets (buildings & facility; Machinery & Equipment)
Generation of Waste	General office Waste, domestic waste, canteen waste, discharge water
Emissions	Smoke and Particulate Matter
Disturbances	Noise from Generator

Operation phase commenced in December 2020.

F. Abandonment Phase

Category	Description
Abandonment Processes	Land ownership clearance, Building and Facility deinstallation, Decommissioning, Compensation to project staff & workers, close-out reporting, fade-out of project CSR activities
Generation of Waste	General Waste, discharge water
Emissions	Smoke, Particulate Matter and Dust
Disturbances	Noise

3.6 Alternatives

The comprehensive study has been made by the investor for the proposed project since preparation stage to invest capital for the proposed project which covering site location, investment type, building design, quantity and capacity of marketable products, etc., and then proposal has been prepared with final outcome from studied.

There is currently no alternative site and the existing site is intended to serve as an immediate location to be used for project. There is no alternative for building design, construction & installation procedure, project period and the proposed project aim to proceed as per officially permitted project proposal with exception in preferred site.

Any alternative/changes will be presented if there is any project activity requires changes throughout project period which deviate from officially approved original project proposal.

3.7 Comparison and Selection of Alternative

3.7.1 Methodology

In this study, LTICL has considerably practiced comparison and selection of alternative based on location, marketing demand, affordable products, efficiency of Equipment & Machinery, investment and return benefit ration before commencing the proposed project and decision make internally.

3.8 Description of the Selected Alternatives

3.8.1 Technical Description of the Selected Alternative

LTICL has prepared project proposal to operate Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Project to suit with Myanmar laws and submitted to BRIC for permit approval. There is no alternative data for comparison in building design, construction & installation procedure, project period and the proposed project aim to proceed in proposed location with BRIC permission.

3.8.2 Relevant Programs

Proposed project operator undertakes to conduct the below considered relevant programs but not limited to. There will be yearly review and update to improve in its program performance throughout project period.

3.8.3 Environmental Conservation Program

LTICL commit to conduct Environmental Conservation Program in collaboration with Environmental Experts as necessary. In addition, LTICL commit to comply with Environmental Laws, Procedures, Orders, & Instruction issued from MONREC. (Annexure - 11)

3.8.4 Environmental Management Plan EMP

LTICL commit to perform Cleaning of Daily waste produces from Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis focus on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis rented area to maintain clean Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis is responsible of operator as part of EMP. (Annexure - 11)

3.8.5 Waste Management Plan

Wastewater generated by the proposed project includes domestic and sanitary wastewater, all of which will be treated and monitored onsite before discharge into designated location within project area. LTICL has to ensure the wastewater releases after treatment comply with BTDC practice standards.

A small amount of non-hazardous general solid wastes, such as kitchen waste, food waste, paper, woods, etc., generated from operation activity will be segregated individually for reuse and recycle to maximize its usage in the operation and only domestic waste generated from operation staff will be sent for proper disposal at BTDC waste disposal site. No Hazardous wastes will be generated from the normal operation of LTICL. (Detailed in Annexure - 11)

3.8.6 Fire Safety, Emergency & Disaster Management Plan

Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis have been installed fire safety facilities (such as emergency exits, sufficient & quality certificate passed fire extinguishers, fire-fight equipment, fire-water hose) according to instruction from Myanmar Fire Service Department. Water source for firefighting will be ground water according to instruction and procedure from BTDC. In emergency situation occurs at Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis, project staff will communicate relevant Bago Township Fire Service Department and take actions by following guidance from authority. In addition,

LTICL undertake to commit to run its operation activities under Myanmar laws, regulations, orders, and procedures. (Detailed in Annexure - 11)

3.8.7 Corporate Social Responsibility (CSR) Plan

LTICL commits to reserve 2% of net profit from proposed Project yearly income in sponsoring required CSR activities of respective local community development programs (Bago Township, Bago Region) in collaboration with authority and representative of Bago Township. (Detailed in Annexure - 11)

3.8.8 Social Welfare Plan

LTICL has also plan for the social welfare of staff and labor such as enough vehicles in transport/ferry, relevant training to improve skill and performance-based awarding program, annual staff party and team building trip, etc.,) and working hour will be in line with existing labor laws & regulation of Myanmar. (Annexure -10)

4. DESCRIPTION OF THE SURROUNDING ENVIRONMENT

4.1 Defined Study Area

The proposed consumer electronics factory is located at Plot No. Myay Taing (24), Block (Thee Thant 1), Okthar 8th Ward, Bago Township, Bago Region, Myanmar. It is bordered by an unknown village street to the east, another unknown village street to the west, Daw Yi Yi Myint's Land to the south, and a residential area to the north.

The study area is defined as a 120-meter radius circle centered around the project area. This encompasses the neighboring and immediate surrounding areas, including streets, lands, residential zones, and other physical, biological, and social environments. The study area allows for the assessment of both direct and indirect impacts resulting from the project's activities. NeoTech Myanmar Environmental Team was conducted a field survey within the study area to identify these impacts.



Figure.4.1.1: Front View from the Factory



Figure 4.1.2: Side Views from the Factory

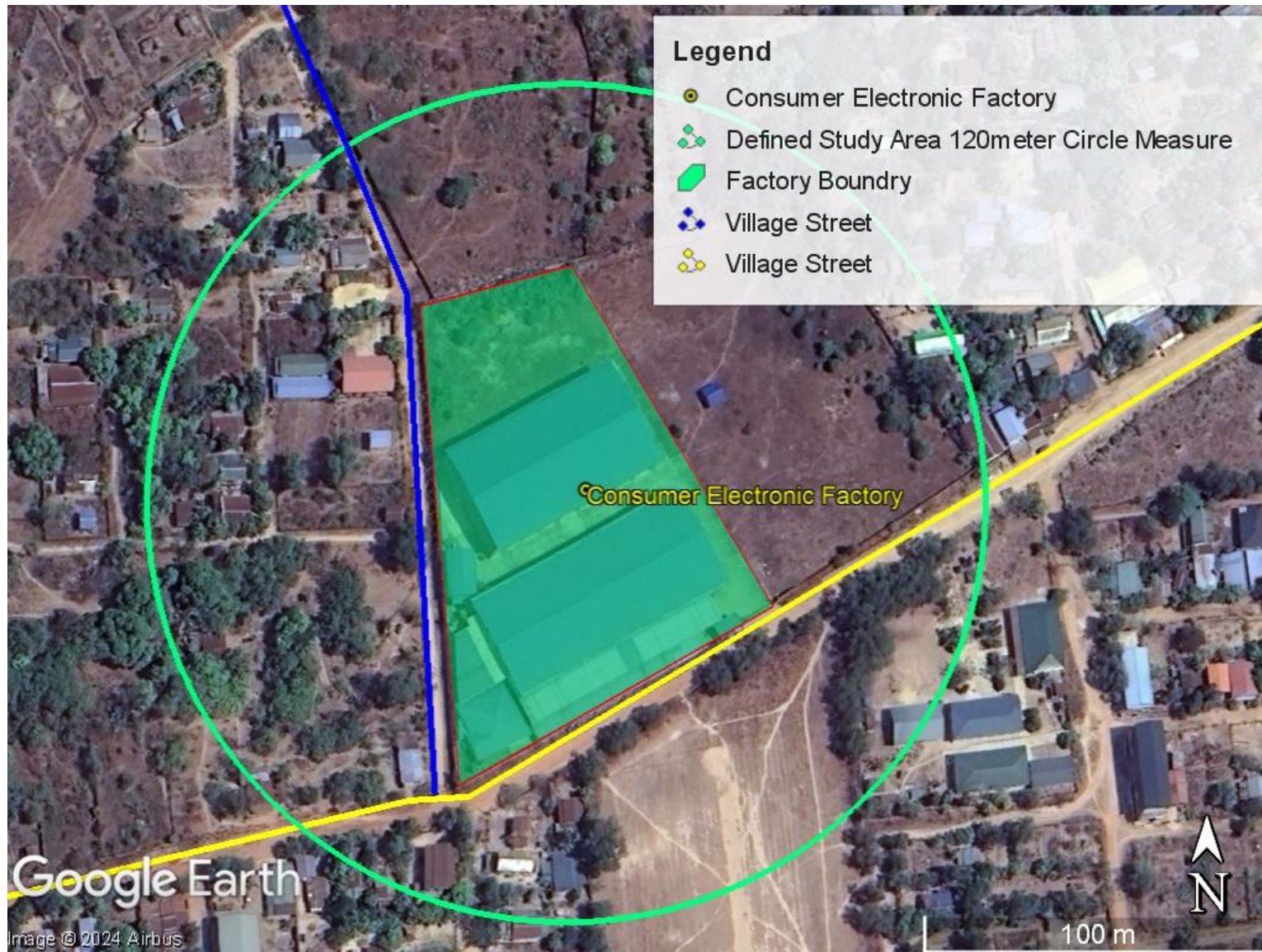


Figure 4.1.3: Defined Study Area

4.2 Methodology and Objective of Data Collection and Assessment

Survey Team of NeoTech Myanmar was collected physical, biological, socio-eco, cultural baseline data within the study area. This study aims to identify sensitive receptors in the assessment of impacts on physical resources, biological resources, human use values, and quality of life values. In collection of environmental and social information; primary data collection and secondary data collection were used.

(i) Primary Data Collection

Primary data such as soil quality, water quality, air quality, noise level and, flora/fauna assessment has been conducted by field survey study in the project area. The results of existing environmental baseline qualities were compared with related guideline in this section.

Grab sampling method was used in collecting of soil and water samples and then sent to the government certified laboratories to know the baseline quality results of the collected samples. **Calibrated EPAS Haz scanner and air quality multimeter** were used for monitoring of ambient air quality results (such as CO, NO₂, SO₂, RH%, PM₁₀, PM_{2.5}, VOC) in the project area. **Digital noise level meter** was used for baseline data collection of noise emission from project activities. Flora/fauna information are collected by **walk through survey** and some are getting from **interview with local people**.

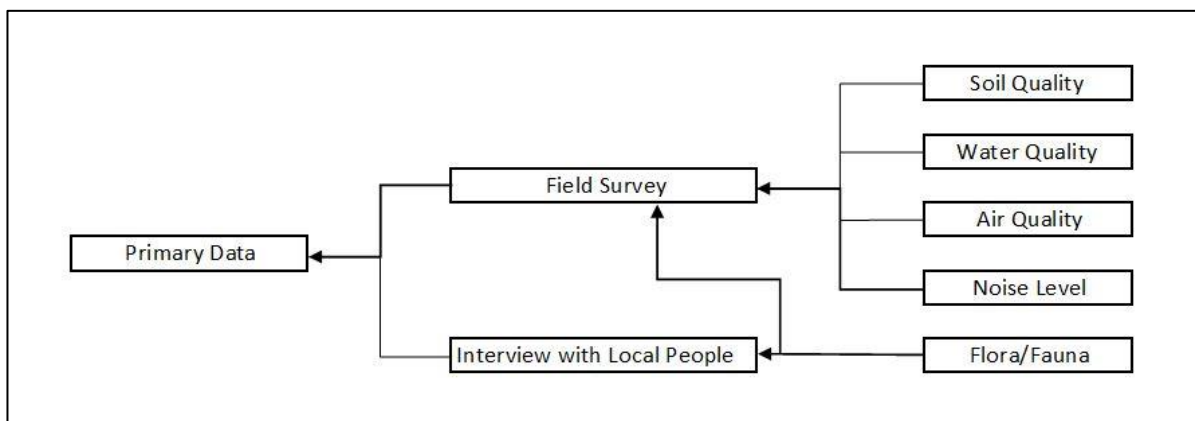


Figure 4.2.1: Methodology for primary data collection

(ii) Secondary data Collection

In this desktop study aim to gather existing data on the physical characteristics and socio-economic aspects of the study area that located in Bago Township. Our sources include secondary resources such as government profiles and relevant websites.

The information of topography, geology and soil, meteorology and climate, land use, natural disasters, and hydrology obtained from some research papers and Bago Township profile for 2023, the General Administrative Department. Additionally, socio-economic data related to population, education, health, religion/cultural heritage, and infrastructure services also gathered from the Bago Township profile for 2023 and other relevant government websites. These details are crucial for understanding the community.

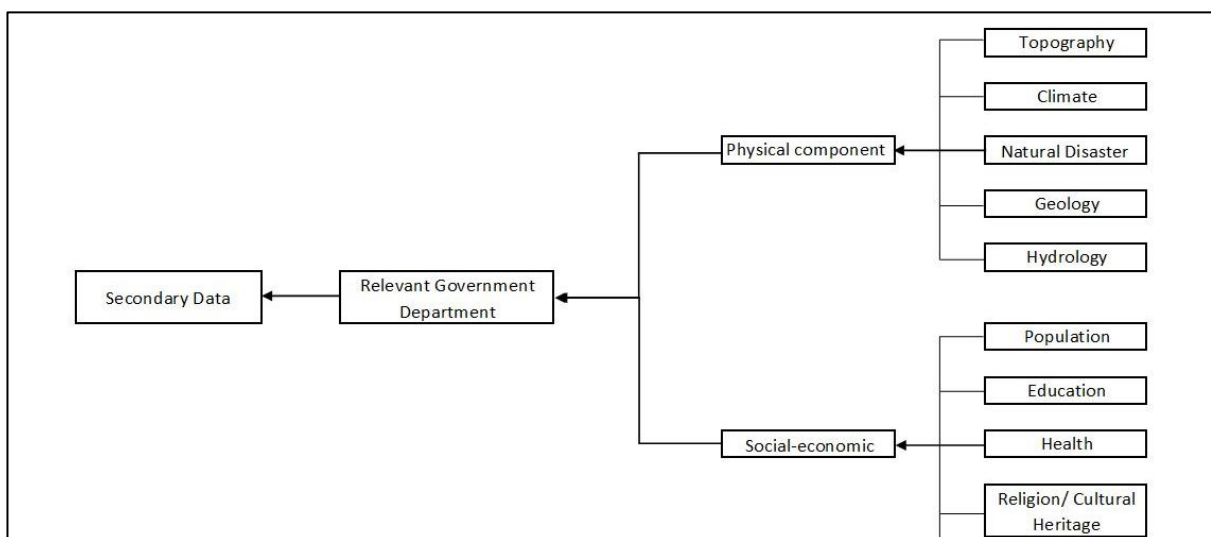


Figure 4.2.2: Methodology for secondary data collection

4.3 Existing Environmental Baseline Condition

Field survey has been done on 9 May 2024 to monitor values of existing environmental quality; Soil quality, Water quality, Air Quality, Noise Level, etc., Main purpose of Existing environmental quality values monitoring is recording existing environmental quality values to include in impact assessment to surrounding environment from project activity. It's observed that the values (Air, Water, and Noise) are within general guidelines

4.3.1 Soil quality

The principal objective of Soil Quality Monitoring program was to obtain quantitative baseline data for the area affected by the Proposed Project. Soil sampling surveys involve analysis of samples collected from a particular soil horizon then sieved to retain a suitable size fraction. Many surveys have used B horizon samples to take advantage of the abundance of clays and iron oxides which scavenge many indicator elements.

Soil can contain four basic ingredients:

1. Residual minerals or rock fragments,
2. Secondary minerals formed during weathering,
3. Soluble material (either in solution or temporarily precipitated by saturated groundwater), and
4. Organic material.

Brief description of soil sample locations is shown in following Table.

Table 4.3.1.1: Soil Sample Location

Name	Collected Date	Latitude	Longitude	Location
Soil sample	9 May 2024	17°16'25.36"N	96°27'33.53"E	Inside the factory boundary

Using materials to collect soil samples are shown in below table.

Table 4.3.1.2: Using Material for soil survey

No.	Type	Description	Remark
1	Earth Auger	To digging the surface soil	

2	Sample bag	To add soil sample	
3	Marker pen	To label about collected sample	
4	GPS Tracker	To record location points	

Soil sample locations map is shown in following Figure.

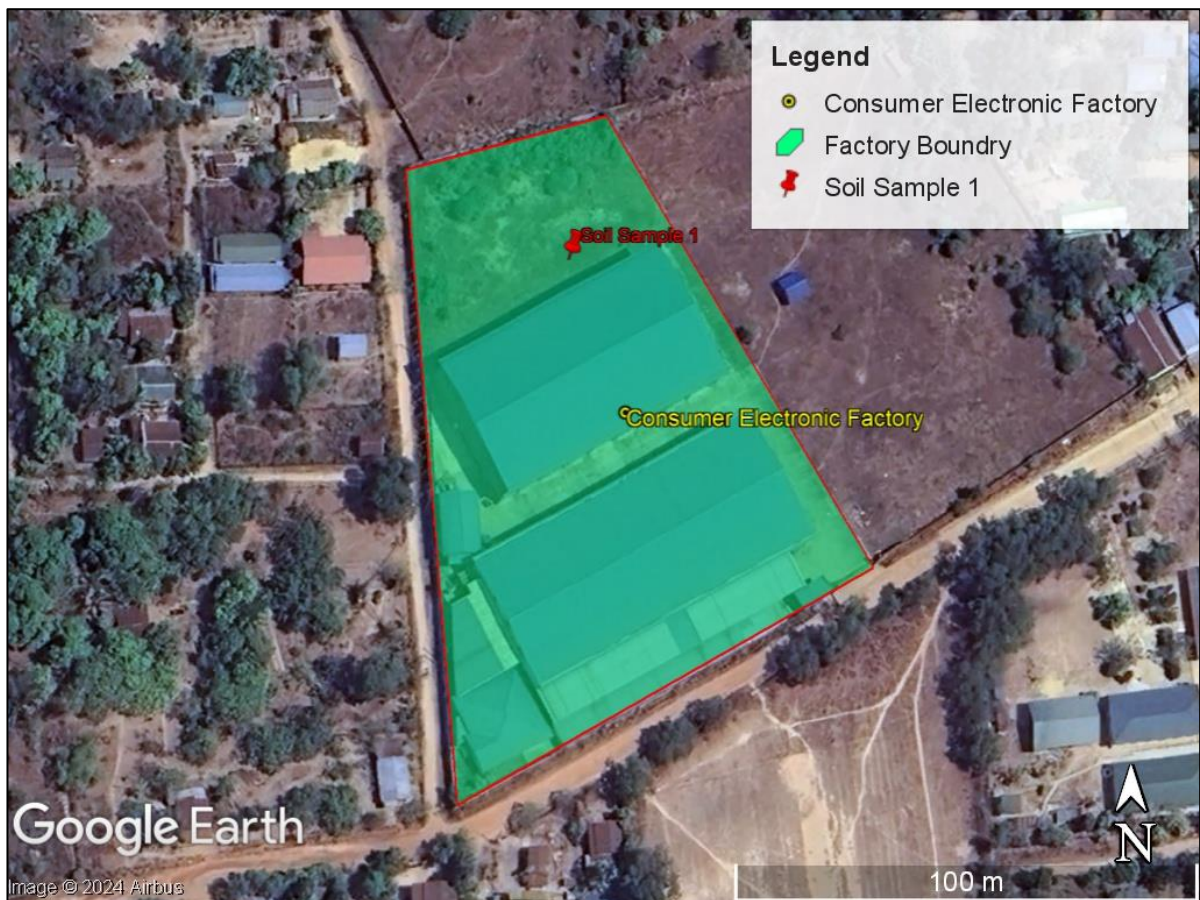
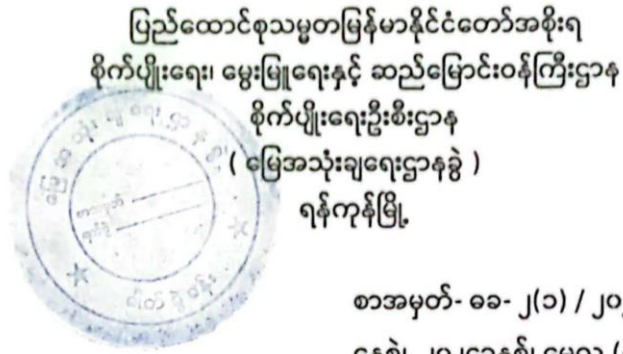


Figure 4.3.1.1: Soil Sample Location (17°16'25.36"N, 96°27'33.53"E)



Figure 4.3.1.2: Soil Sample

In May 9 2024 field survey, a soil sample was collected at inside of the factory boundary for analysis. Locality of the soil sample was taken by GPS. Soil sample was collected from B horizon of soil layers. The earth auger was used for the collection of sample and organic matter was avoided. All collected samples were labeled and then sent to the laboratory of Department of Agriculture (Land Use Division), Ministry of Agriculture and Irrigation. Soil analytical and interpretation results are shown in following figures.



စာအမှတ်- ခခ- ၂(၁) / ၂၀၂၄-၂၀၂၅ (၀၃၆)
နေ့စွဲ၊ ၂၀၂၄ခုနှစ်၊ မေလ (၁၀) ရက်

အကြောင်းအရာ။ မြေနမူနာ ဓာတ်ခွဲအဖြေများပေးပို့ခြင်း။
ရည်ညွှန်းချက်။ Neo Tech Myanmar Co., Ltd မှ (10.5.2024) နေ့တွင် ပေးပို့သော
နမူနာ။
အထက်အကြောင်းအရာပါကိစ္စနှင့် ပတ်သက်၍ ရည်ညွှန်းစာဖြင့် ပေးပို့လာ
သော မြေနမူနာ (၁ - မျိုး)အား ဓာတ်ခွဲစစ်ဆေးပြီးဖြစ်ပါ၍ ဓာတ်ခွဲတွေ့ရှိချက်အဖြေများ
ကို ဤစာနှင့် အတူ ပူးတွဲပေးပို့ပါသည်။

(ဒေါက်တာသန္တာညီ)
ဒုတိယညွှန်ကြားရေးမှူး
ဓာတ်ခွဲခန်းတာဝန်ခံ
မြေအသုံးချရေးဌာနခွဲ

မိတ္တူကို-
ရုံးလက်ခံ။

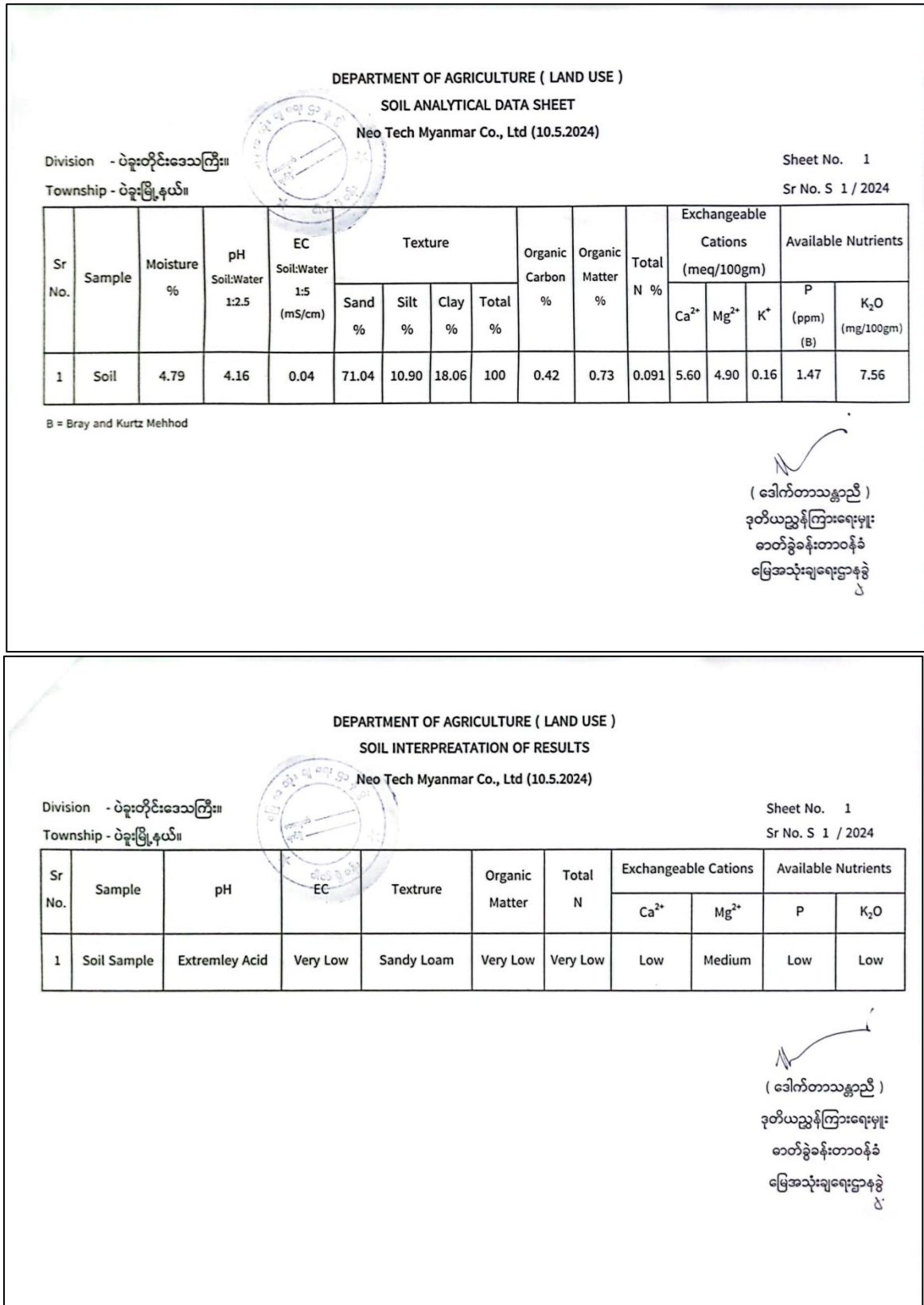


Figure 4.3.1.3: Analytical and interpretation results of the soil sample

4.3.2 Water Quality

The principal objective of water quality monitoring program was to obtain quantitative baseline data for the area affected by the project activity, and impacts to environment. Analysis methods of the water parameters are shown in below table.

Table 4.3.2.1: Water Analysis methods

Parameter	Analysis Method
pH	Instrumental Analysis
Colour (True)	APHA Platin u m Cobalt Unit
Turbidity	Instrumental Analysis
Conductivity	Instrumental Analysis
Total Hardness	EDTA Titrimetric Method
Calcium Hardness	EDTA Titrimetric Method
Magnesium Hardness	EDTA Titrimetric Method
Total Alkalinity	Titration Method
Phenolphthalein Alkalinity	Titration Method
Carbonate (CaCO_3)	Calculation of Alkalinity Relationships
Bicarbonate (HCO_3)	Calculation of Alkalinity Relationships
Iron	Phenanthroline Method
Chloride (as Cl)	Argentometric Method
Sodium Chloride (as NaCl)	Argentometric Method
Sulphate (as SO_4)	4500-504 E. Turbidimetric Method
Total Solids	Calculation Method
Total Suspended solids	Photometric Method
Total dissolved solids	Instrumental Analysis
Temperature °C	Laboratory and Field Methods

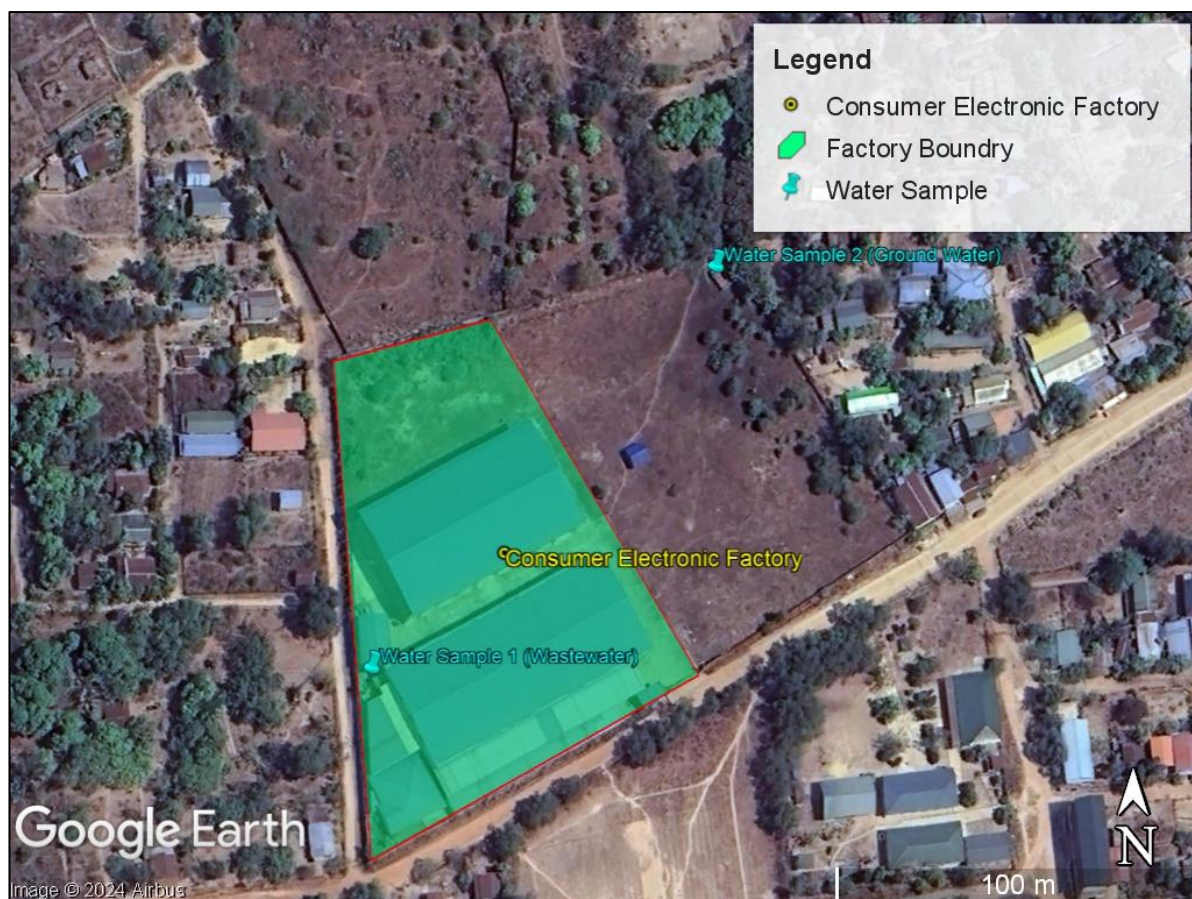


Figure 4.3.2.1: Water Sample Location

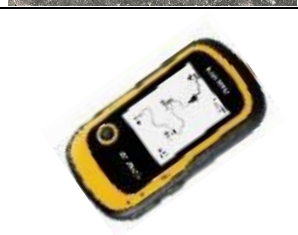
Brief descriptions of water surveys are shown in below Tables.

Table 4.3.2.2: Water sample brief description

Sample No.	Water sample 1	Water sample 2
Type of water	Wastewater	Ground water
Date	9 May 2024	9 May 2024
Collected Time	10:30am	12:30pm
Examination Period	11 May 2024 to 13 May 2024	11 May 2024 to 13 May 2024
Location	17°16'23.15"N, 96°27'32.67"E	17°16'26.74"N, 96°27'35.87"E

Using materials to collect water samples are shown in following table.

Table 4.3.2.3: Using material for water survey

No.	Type	Description	Remark
1	Water bottle	Water container	
2	Marker pen	To label about collected sample	
3	GPS Tracker	To record location points	

Collected water samples are shown in below figures.



Figure 4.3.2.2: Ground water sample collecting at the study area



Figure 4.3.2.3: Wastewater sample collecting at the study area

The monitoring program outlined above began recording data in 9 May 2024. Water samples were collected from two sampling stations (1 ground water sample from tube well of the project and 1 waste water sample from water discharge of the project) by using **Grab Sampling Method**. The steps of Grab Sampling Method are as follow;

- ❖ A garb sample is a discrete sample which is collected at a specific location at a certain point in time.
- ❖ Rinse the sampling vessel with water on site 3-4 times.
- ❖ Care must be taken to avoid contaminating water to be sampled during rinsing.
- ❖ Submerge the sampling vessel gently, fill it with the water sample and close it tightly.
- ❖ Location of each sampling station was recorded by GPS and photographed.

All collected samples were labelled and sent to the laboratory. The ground water quality results compared with the WHO Drinking Water Guideline are as follows.

Table 4.3.2.4: Ground water results compared with WHO Guideline 2011

Parameter	Water sample 2	WHO Drinking Water Guideline	Unit
	Ground water		
pH	7.3	6.5-8.5	S.U
Colour (True)	Nil	15	TCU
Turbidity	4	5	NTU
Total Hardness	2	500	mg/l as CaCO ₃
Iron	0.29	0.3	mg/l
Chloride (as Cl)	3	250	mg/l
Sulphate (as SO ₄)	Nil	500	mg/l
Total Solids	42	1500	mg/l
Total dissolved solids	30	1000	mg/l
Arsenic	Nil	-	mg/l
Fluoride	0.30	-	mg/l

According to the results, the all parameters (pH, color, turbidity, total hardness, iron, chloride, sulphate, total solids, total dissolved solids, arsenic and fluoride) are meet with WHO Drinking water guideline. Therefore, it has been observed that this water can be safely used not only as domestic water but also as drinking water.

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
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WATER QUALITY TEST RESULTS FORM

Client: Neo Tech Myanmar (Line Technical)
Nature of Water: Ground Water
Location: Bago
Date and Time of collection: 9.5.2024 (10:35)
Date and Time of arrival at Laboratory: 10.5.2024
Date and Time of commencing examination: 11.5.2024
Date and Time of completing: 13.5.2024

Results of Water Analysis

Results of Water Analysis		WHO Drinking Water Guideline (Geneva - 1993)	
pH	7.3		6.5 - 8.5
Colour (True)	Nil	TCU	15 TCU
Turbidity	4	NTU	5 NTU
Conductivity		micro S/cm	
Total Hardness	20	mg/l as CaCO ₃	500 mg/l as CaCO ₃
Calcium Hardness		mg/l as CaCO ₃	
Magnesium Hardness		mg/l as CaCO ₃	
Total Alkalinity		mg/l as CaCO ₃	
Phenolphthalein Alkalinity		mg/l as CaCO ₃	
Carbonate (CaCO ₃)		mg/l as CaCO ₃	
Bicarbonate (HCO ₃)		mg/l as CaCO ₃	
Iron	0.29	mg/l	0.3 mg/l
Chloride (as CL)	3	mg/l	250 mg/l
Sodium Chloride (as NaCL)		mg/l	
Sulphate (as SO ₄)	Nil	mg/l	500 mg/l
Total Solids	42	mg/l	1500 mg/l
Total Suspended Solids		mg/l	
Total Dissolved Solids	30	mg/l	1000 mg/l
Manganese		mg/l	0.05 mg/l
Phosphate		mg/l	
Phenolphthalein Acidity		mg/l	
Methyl Orange Acidity		mg/l	
Salinity		ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by: Zaw Hein Oo
Signature: [Signature]
Name: B.Sc (Chemistry) Sr.Chemist ISO Tech Laboratory

Approved by: Thinzar Theint Thaint
Signature: [Signature]
Name: B.E (CIVIL) Assistant Technical Officer ISO Tech Laboratory

(a division of WEG Co., Ltd.)
No.18, Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

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W0524 288

WATER QUALITY TEST RESULTS FORM

Client: Neo Tech Myanmar (Line Technical)
Nature of Water: Ground Water
Location: Bago
Date and Time of collection: 9.5.2024 (10:35)
Date and Time of arrival at Laboratory: 10.5.2024
Date and Time of commencing examination: 11.5.2024
Date and Time of completing: 13.5.2024

Results of Water Analysis

Results of Water Analysis		WHO Drinking Water Guideline (Geneva - 1993)	
Temperature (°C)		°C	
Fluoride (F)	0.3	mg/l	1.5 mg/l
Lead (as Pb)		mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate (N.NO ₃)		mg/l	50 mg/l
Chlorine (Residual)		mg/l	
Ammonia Nitrogen (NH ₃)		mg/l	
Ammonium Nitrogen (NH ₄)		mg/l	
Dissolved Oxygen (DO)		mg/l	
Chemical Oxygen Demand (COD)		mg/l	
Biochemical Oxygen Demand (BOD)		mg/l	
(5 days at 20 °C)			
Cyanide (CN)		mg/l	0.07 mg/l
Zinc (Zn)		mg/l	3 mg/l
Copper (Cu)		mg/l	2 mg/l
Silica (SiO ₂)		mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by: Zaw Hein Oo
Signature: [Signature]
Name: B.Sc (Chemistry) Sr.Chemist ISO Tech Laboratory

Approved by: Thinzar Theint Thaint
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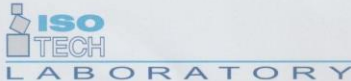
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Figure 4.3.2.4: Ground water quality Result

The waste water sample was sent to ISO Tech Laboratory for analysis. According to the results, the parameters pH, BOD, and COD are meet with National Environmental Qualities (Emission) Guideline 2015; 2.3.5.7 Semiconductors and Other Electronic Manufacturing Standard.

**Table 4.3.2.5: Waste water results compared with NEQEG 2015,
2.3.7.5 Semiconductors and Other Electronic Manufacturing Standard**

Parameter	NEQEG	Water Sample 1	Unit
	2.3.7.5	Wastewater	
BOD	50	8	mg/l
COD	160	32	mg/l
Color	-	5	TCU
Conductivity	-	88	mg/l
DO	-	6.8	mg/l
Total Nitrogen	-	4	mg/l
pH	6-9	7.4	S. U
Phosphate	-	4.6	mg/l
Salinity	-	0.1	mg/l
Temperature	-	25	°C
Total solids	-	54	mg/l
Turbidity	-	13	mg/l



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WW0524 030

WATER QUALITY TEST RESULTS FORM

Client Neo Tech Myanmar (Line Technical)

Nature of Water Wastewater (Inlet)

Location Bago

Date and Time of collection 9.5.2024 (11:30)

Date and Time of arrival at Laboratory 10.5.2024

Date and Time of commencing examination 11.5.2024

Date and Time of completing 16.5.2024

Results of Water Analysis

pH	7.4	NTU
Colour (True)	5	TCU
Turbidity	13	NTU
Conductivity	88	micro S/cm
Total Hardness		mg/l as CaCO ₃
Calcium Hardness		mg/l as CaCO ₃
Magnesium Hardness		mg/l as CaCO ₃
Total Alkalinity		mg/l as CaCO ₃
Phenolphthalein Alkalinity		mg/l as CaCO ₃
Carbonate (CaCO ₃)		mg/l as CaCO ₃
Bicarbonate (HCO ₃)		mg/l as CaCO ₃
Iron		mg/l
Chloride (as Cl)		mg/l
Sodium Chloride (as NaCl)		mg/l
Sulphate (as SO ₄)		mg/l
Total Solids	54	mg/l
Total Suspended Solids		mg/l
Total Dissolved Solids		mg/l
Manganese		mg/l
Phosphate	4.6	mg/l
Phenolphthalein Acidity		mg/l
Methyl Orange Acidity		mg/l
Salinity	0.1	ppt

Remark: This certificate is issued only for the receipt of the test sample.

Tested by Hein

Signature: Zaw Hein Oo

Name: B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by Thinzar Thint Thint

Signature: Thinzar Thint Thint

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WW0524 030

WATER QUALITY TEST RESULTS FORM

Client Neo Tech Myanmar (Line Technical)

Nature of Water Wastewater (Inlet)

Location Bago

Date and Time of collection 9.5.2024 (11:30)

Date and Time of arrival at Laboratory 10.5.2024

Date and Time of commencing examination 11.5.2024

Date and Time of completing 16.5.2024

Results of Water Analysis

Temperature (°C)	25.0	°C
Fluoride (F)		mg/l
Lead (as Pb)		mg/l
Arsenic (As)		mg/l
Nitrate (N.NO ₃)	4.0	mg/l
Chlorine (Residual)		mg/l
Ammonia Nitrogen (NH ₃)		mg/l
Ammonium Nitrogen (NH ₄)		mg/l
Dissolved Oxygen (DO)	6.8	mg/l
Chemical Oxygen Demand (COD)	32	mg/l
Biochemical Oxygen Demand (BOD)	8	mg/l
(5 days at 20 °C)		
Cyanide (CN)		mg/l
Zinc (Zn)		mg/l
Copper (Cu)		mg/l
Silica (SiO ₂)		mg/l

Remark: This certificate is issued only for the receipt of the test sample.

Tested by Hein

Signature: Zaw Hein Oo

Name: B.Sc (Chemistry)
Sr.Chemist
ISO Tech Laboratory

Approved by Thinzar Thint Thint

Signature: Thinzar Thint Thint

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Figure 4.3.2.5: Wastewater analysis results

4.3.3 Air Quality

The Objectives of air quality monitoring are; to monitor the existing baseline air quality status of the proposed project area and to determine the potential air impact likely affected by proposed project. The findings present the baseline air quality measurements which were recorded per minute simultaneously in terms of 24-hours average.



Figure 4.3.3.1: Air Quality Monitoring Location

Brief description of air quality monitoring program is shown in below.

Table 4.3.3.1: Air Quality Monitoring Program

Subject	Air Quality Monitoring Program
Parameter	O ₃ , CO, SO ₂ , NO ₂ , Relative Humidity PM _{2.5} , PM ₁₀ , VOC, Temperature
Date	9 May 2024 to 10 May 2024
Period	24 hours
Location Point	Latitude: 17°16'23.86"N, Longitude: 96°27'32.78"E

Using materials for ambient air quality monitoring are shown in below table.

Table 4.3.3.2: Using materials for ambient air quality monitoring

No.	Type	Parameter & Range	Remark
1	EPAS Haz-scanner -Direct reading -Simultaneously monitor PM and toxic gases	Carbon monoxide Range: 0 to 10,000 ppb Nitrogen Dioxide Range: 0 to 5,000 ppb Sulfur Dioxide Range: 0 to 5,000 ppb PM₁₀ Range: 0 to 5,000 ug/m ³	
2	Ozone meter -Electrochemical sensor	Detection data range: (0.000-5.000ppm)	
3	Air quality multimeter	Dust / PM_{2.5}: Range: 0-500 ug/m ³ Accuracy: ±10% Sampling cycle: 1 second VOC: Range: 0-10 ppm Accuracy: ±10% Sampling cycle: 1 second Temperature: Range: -10-80 °C Accuracy: ±0.3 °C Sampling cycle: 2 second Humidity: Range: 0-100 RH% Accuracy: ±3 RH% Sampling cycle: 2 second	
4	GPS Tracker	To record location points	



Figure 4.3.3.2: Ambient Air Quality Monitoring at the Project Area

National Environmental Quality (Emission) Guideline designed as limits for protection of public health, welfare and environment were used to compare with the results of the baseline survey and to determine the existing baseline status of air quality at the locations within the proposed project area. Compared Ambient air quality results with National Environmental Quality (Emission) Guideline are as follow;

Table 4.3.3.3: Air Quality Monitoring Result

Parameter	NEQEG Air Emission Standard		Ambient Air Quality Results Line Tech Industry	
	Averaging Period	Value	Averaging Period	Value
Ozone	8-hours	100 µg/m ³	24 hours	0 µg/m ³
Carbon monoxide	-	-	24 hours	16 µg/m ³
Nitrogen dioxide	1 hour	200 µg/m ³	24 hours	38.48 µg/m ³
Sulphur dioxide	24 hours	20 µg/m ³	24 hours	0 µg/m ³
VOC	-	20 Nm ³	24 hours	18.74 Nm ³
PM ₁₀	24 hours	50 µg/m ³	24 hours	32.81 µg/m ³
PM _{2.5}	24 hours	25 µg/m ³	24 hours	24.49 µg/m ³
Relative Humidity	-	-	24 hours	51.67 %

According to the above table, all results of the baseline survey indicate that the 24-hours average levels of O₃, NO₂, SO₂, and PM₁₀, PM_{2.5} meet National Environmental Quality (Emission) Guidelines: General Air Emission Standard.

4.3.4 Noise Level

Ambient noise levels are associated with Project Activity, street activities, and natural elements i.e., wind, rains, and thunderstorms. Measurement of environmental noise level was conducted by Digital Noise Level Meter in 9 May 2024.

The noise level measured in the perimeter of the project area can provide the indication of the existing noise level of the area. There are no significant sources of vibration in the project area. Noise level measurement location point is shown in following Figure.

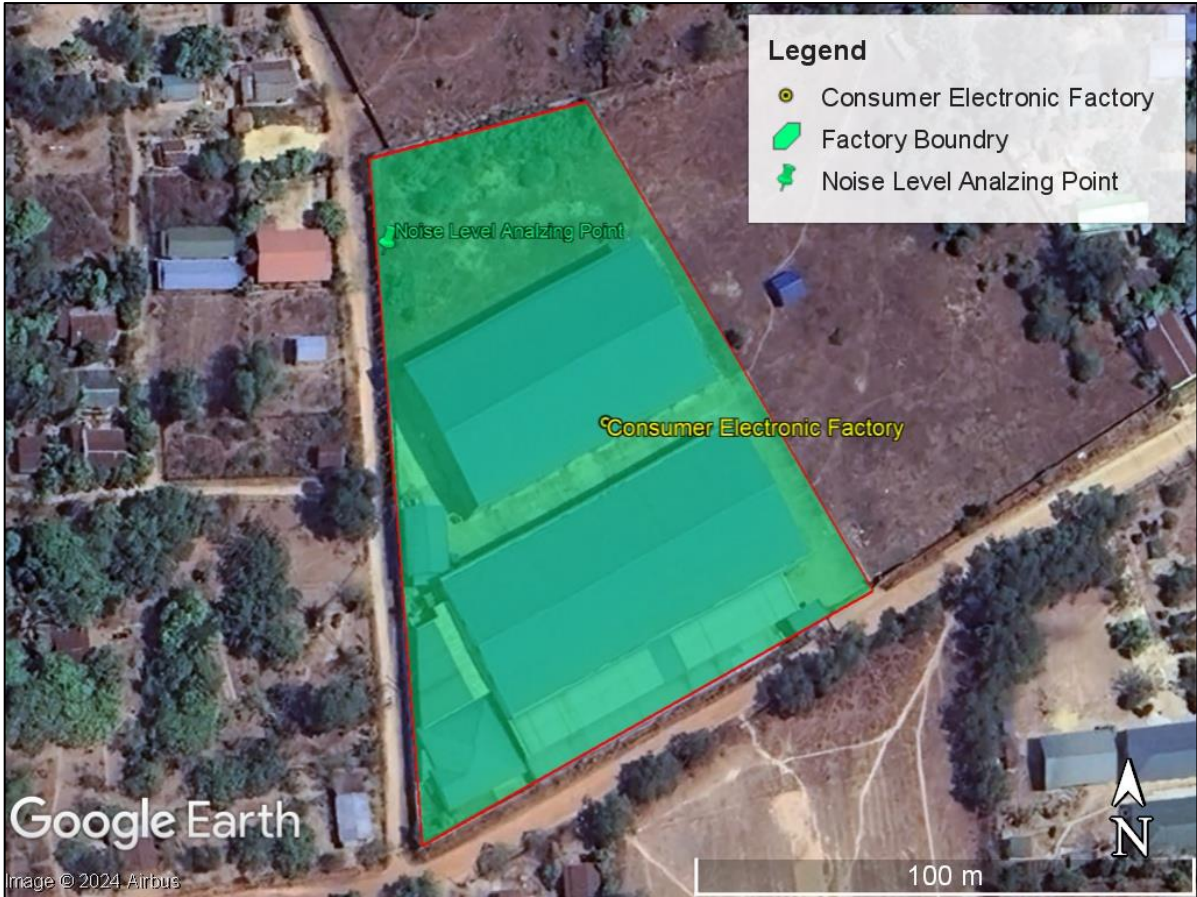


Figure 4.3.4.1: Noise Level Measurement Location

Table 4.3.4.1: Ambient Noise Level Measuring

Date	Period	Subject	Latitude	Longitude	Location
9 May 2024 To 10 May 2024	24 hours	Noise Level Measurement	17°16'25.37"N	96°27'32.43"E	Near corner of factory boundary

Using materials to measure noise level are shown in below table.

Table 4.3.4.2: Using materials for noise level measurement

No.	Type	Description	Remark

1	Digital Noise Meter	To measure ambient noise level	
2	GPS Tracker	To record location points	



Figure 4.3.4.2: Noise Level Measuring at the Project Area

Noise level in the project area is lower than NEQEG standards. Below Table shows ambient noise level at the project area compare with National Environmental Quality (Emission) Guidelines; Noise Emission Standards.

Table 4.3.4.3: Ambient Noise Level Result

Noise Level Measurement

Date	Time	Average Result of Project Area	EQEG Standard		Weight	Day/Night
			Daytime	Nighttime		
9.5.2024	09:05:30- 10:05:00	52	55	45	A	Day
	10:05:30-11:05:00	52	55	45	A	Day
	11:05:30-12:05:00	52	55	45	A	Day
	12:05:00-13:05:00	54	55	45	A	Day
	13:05:30-14:05:00	56	55	45	A	Day
	14:05:30-15:05:00	55	55	45	A	Day
	15:05:30-16:05:00	55	55	45	A	Day
	16:05:30-17:05:00	35	55	45	A	Day
	17:05:30-18:05:00	33	55	45	A	Day
	18:05:30-19:05:00	35	55	45	A	Day
	19:05:30-20:05:00	32	55	45	A	Day
	20:05:30-21:05:00	31	55	45	A	Day
	21:05:30-22:05:00	30	55	45	A	Day
	22:05:30-23:05:00	32	55	45	A	Night
	23:05:30-00:05:00	30	55	45	A	Night
10.5.2024	00:05:00-01:05:00	35	55	45	A	Night
	01:05:30-02:05:00	35	55	45	A	Night
	02:05:30-03:05:00	37	55	45	A	Night
	03:05:30-04:05:00	35	55	45	A	Night
	04:05:30-05:05:00	33	55	45	A	Night
	05:05:30-06:05:00	39	55	45	A	Night
	06:05:30-07:05:00	39	55	45	A	Night
	07:05:30-08:05:00	37	55	45	A	Day
	08:05:30-09:05:00	35	55	45	A	Day

Note: noise level results are in EQEG noise emission standard

4.4 Physical Characteristic

Physical characteristic of environment includes

- Topography
- Geology and soil
- Meteorology and climate
- Land use
- Natural Disaster
- Hydrology
- Erosion and sedimentation

4.4.1 Topography

Bago Township, located in the Bago Region of Myanmar, lies on the eastern foothills of the Bago Yoma mountains. The area is naturally heavily forested, with the northern part of the township featuring higher hills and thicker forests. Additionally, the average elevation in Bago Township is approximately 31 feet, with a minimum elevation of -1 meter and a maximum elevation of 10 meters.

The township area is 1121.66 square miles and length is 21 miles from east to west and 43 miles from south to north. Elevation of the township is average above 100-feet. The township is bordered with Eastern– Waw township and Thanutpin township, Western – Hlegu township, Tike Gyi township and Tharyarwadi township, Southern – Kawa township, and Northern – Dike Oo township and Latpandan township.

4.4.2 Geology and Soil

The proposed project is located at the eastern flank of Bago Yoma. The study area is underlain by the sediments that equivalent to the upper Bago Group and surrounded by the Holocene sediments. It is a relatively low-lying terrain, drained by the Ayeyarwady River and its major tributaries. Rolling hills, ridges and small mountains are present in some areas. The region is characterized by folded small mountain ranges and the Sagaing Fault zone, a regionally significant active right

lateral strike-slip fault. Therefore, the earthquake hazard should not be neglected for this area.

The stratigraphic unit's range in age from Eocene to Holocene and can be categorized as: the Eocene units, Bago Group, Ayeyarwady Formation, Terrace deposits and alluvium.

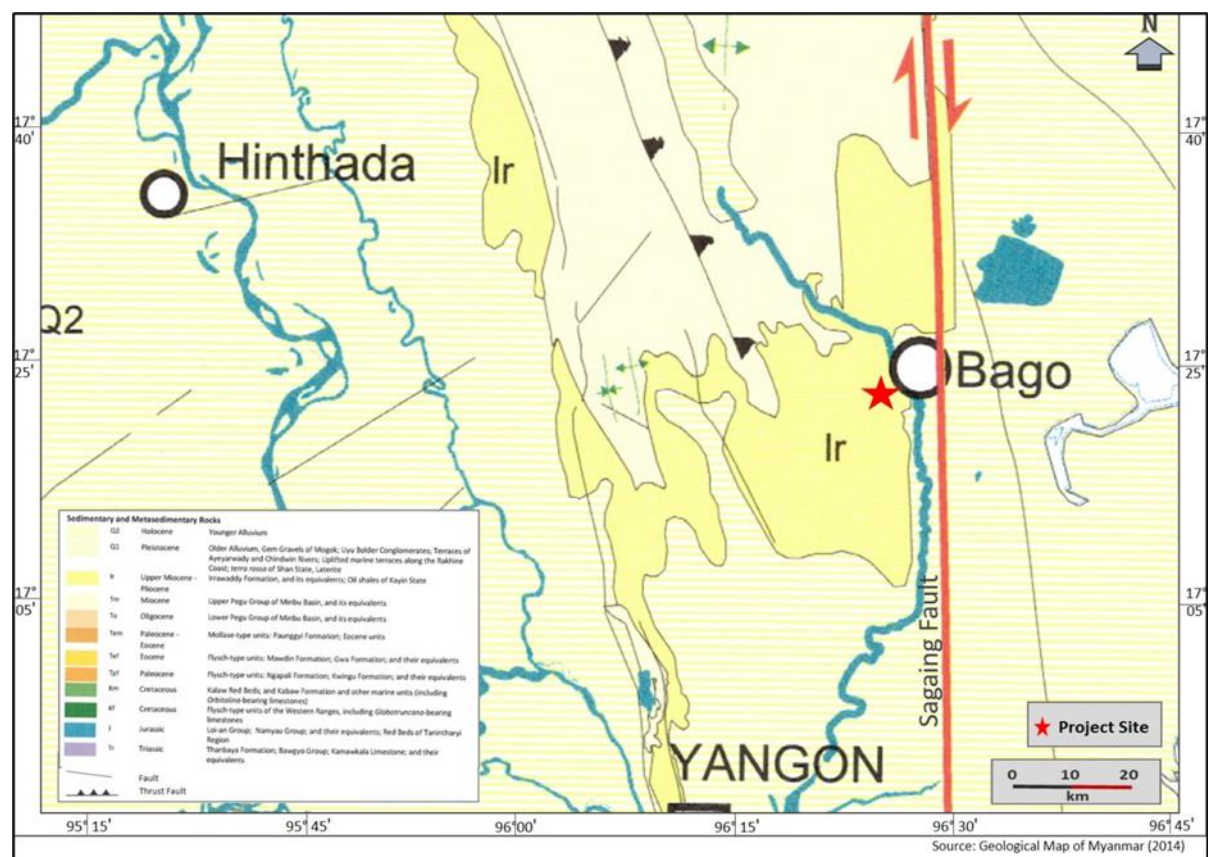


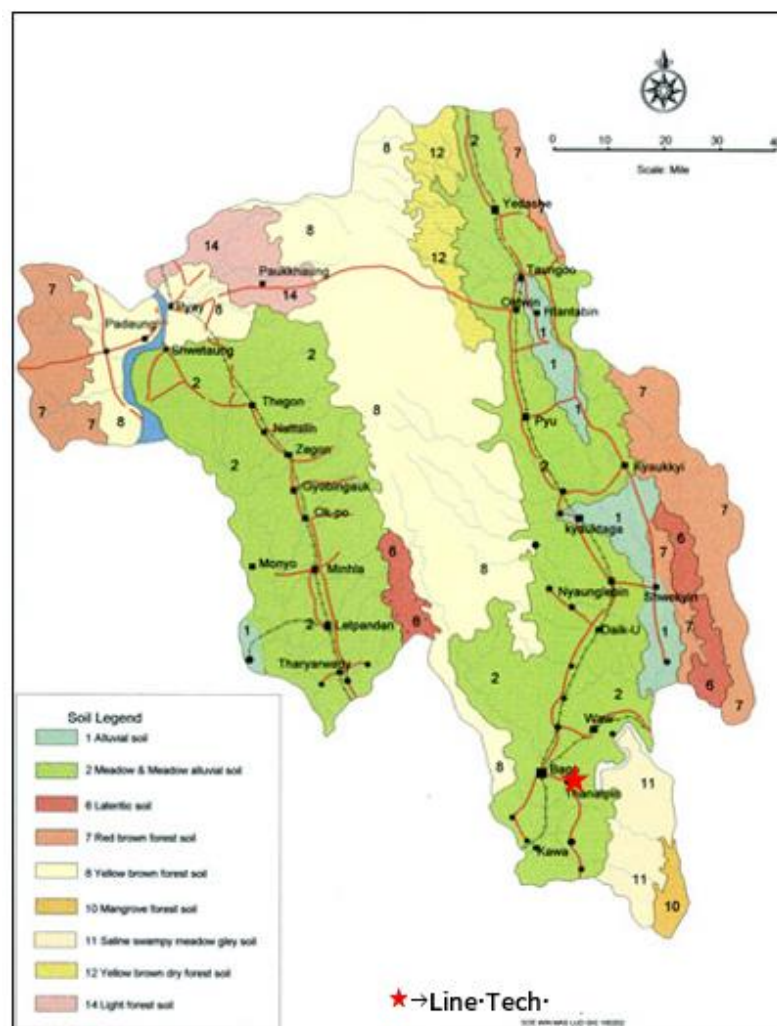
Figure 4.4.2.1: Geological Map of the study area

According to the modern classification, there are 24 main soil types being recognized in the Union of Myanmar. The characteristic of these soils is determined upon (1) the physical and mineral composition of the parent material, (2) the relief (physical features), (3) the climate under which the soil material has been developed and, (4) the vegetation. Soil Classification has generally been made on the basis of the distribution of the important land resources for agriculture.

The propose project is located Bago Township, Bago Region. The project area soil type is included in Meadow soils (Gleisil) and Meadow Alluvial Soil

(Fluvic Gleisoi). The meadow soils or paddy soils are widely occurring in the different parts of Myanmar in river plains, delta and low coastal plains and valleys. All types of Meadow Soils have thick solum and are mostly having clayey texture. They are most suitable for paddy cultivation.

The Meadow soils in the mountain region with high rainfall and Meadow soils of the lower Myanmar have yellow brown color with acid to neutral soil reaction, the meadow soils which occur near the river plains with occasional tidal floods are non-carbonate. They usually contain large amounts of salts. They contain more plant nutrients than the Meadow soils of upper Myanmar. Regardless of the more content of iron, the soils can be utilized for rice and vegetables. Meadow Alluvial soils (Fluvic Gleisoi) can be found in the flood plains. They have the texture of silty clay loam and they can be utilized for groundnut, sesame, sunflower, jute, sugarcane and vegetables in addition to rice cultivation.



(Source: Soil Types and characteristics of Myanmar, Land Use Division, Ministry of Agriculture and Irrigation)

Figure 4.4.2.2: Bago Region soil map

4.4.3 Meteorology and Climate

Bago Township in Myanmar experiences a tropical monsoon climate (classified as Am according to the Köppen climate classification). Bago has high temperatures year-round, with an average low of 18.6°C (65.5°F) and an average high of 38.5°C (101.3°F). The wet season is oppressive and overcast, while the dry season is muggy and partly cloudy. Throughout the year, temperatures typically vary from 64°F to 100°F, rarely going below 60°F or above 104°F.

Table 4.4.3.1: Rainfall and Temperature of Bago Township

No.	Year	Rainfall		Temperature	
		Rainy Day	Total Rainfall (inches)	Summer	Winter
				Highest (°C)	Lowest(°C)
1	2019-2020	124	107.68	42.2	14.0
2	2020-2021	115	95.16	34.1	22.3
3	2021-2022	129	100.91	32.1	21.2
4	2022-2023	37	23.94	41.2	10.2

(Refer: Bago Township profile 2023, General Administrative Department Information)

4.4.4 Land Use

The existing land use pattern of Bago township according to General Administration Department data info (2023) is presented in below Table.

Table 4.4.4.1: Land Use

Land use	Area in Acre
Agricultural land	2042.05
Vacant land	258
Pasture land	5189
Industrial land	2961
Urban	12193
Rural	8807
Reserved Forest/Park	395534
Wild Forest	-
Wild Land	945
Not agricultural area	78660
Other	9109
Total	7178.61

(Refer: Bago Township profile 2023, General Administrative Department Information)

4.4.5 Natural Disaster

Bago Township has experienced heavy flooding due to persistent monsoon storm rains in 2023-2024. More than 14,000 people have been displaced, and rail lines connecting major cities have been disrupted. Fortunately, there have been no reported casualties so far. Additionally, over 87,000 acres of monsoon rice cultivation were flooded, with more than 30,000 acres damaged and over 4,000 acres of rice destroyed. The situation remains challenging, but relief efforts are underway, and residents are taking shelter in relief camps.

Table 4.4.5.1: Natural disaster occurred in Bago Township

No.	Type	Frequency	Death/Missing (person)	Building Losses/Damage	Total Losses (million kyats)
1	Storm	5	-	40	8.896
2	Tsunami	-	-	-	-
3	Earthquake	-	-	-	-
4	Flood	-	-	-	-
5	Fire	8	-	33	58.05
6	Thunder	1	1	-	-

(Refer: Bago Township profile 2023, General Administrative Department Information)

4.4.6 Hydrology

The township is abundant with creeks and rivers, the most significant of which is the Bago River. Serving as the primary water resource for demand, the Bago River is complemented by other distinct water sources, including Ko Lu Kwel Creek, Latpan Creek, Aung Mya Creek, Shwe Creek, and Salu Creek. These smaller waterways eventually flow into the Bago River.

4.4.7 Erosion and sedimentation

Erosion at mountain areas may occurs during continuous heavy storm rain and sedimentation at Bago River can create river ground basin level rising and leading increasing of flooding area alongside of river. The proposed project area is situated on flat area and erosion is not observed during site investigation.

4.5 Biological Characteristic

According to the data of GAD, the natural vegetation in the township includes Kyun, Pyin Ka Toe, Pi Tauk, Thityar, Ingyin, Thinkan, Ma Kyi, Tamar, Kokko, Malzali, Kinpunchin, and Htinshuu, etc. As for wildlife, the area is home to elephants, leopards, hogs, bears, buffaloes, wild cats, and various species of monkeys, etc.

As reserved forest and wildlife sanctuary; There is eight reserved forests in Bago township with total area 381042 acres. Moeyungyi Wetland Wildlife Sanctuary is a designated wildlife reserve in Myanmar. Located in the Bago Region, it covers an area of 100 square kilometers (40 square miles) and was established in 1986. The sanctuary lies between north latitudes 17°30' and 17°36' and east longitudes 96°33' and 96°39'. It is situated approximately 21 miles from the project area.

Designated as a Wildlife Sanctuary in 1988, Moeyungyi Wetland Wildlife Sanctuary has a singular objective: to protect seasonal migratory birds and resident bird species while conserving the wetland ecosystem.

The warm and inviting wetland habitat attracts various bird species, including migratory birds from the Arctic Region that seek refuge during winter. Moeyungyi serves as a crucial sanctuary for both migratory and resident water birds, acting as an essential stopover along their flyways.

4.5.1 Flora and Fauna Assessment

During the site visit, the different biodiversity features, habitat and landscape units present at the site were identified. Walk-through-surveys were conducted across the site and all flora species observed were recorded. 11 flora species and 16 fauna species were recorded during the assessment.

Table 4.5.1.1: Recorded Flora Species on Field Survey

Sr.	Scientific Name	Myanmar Name	Family	Habit	IUCN Status
1	<i>Acacia auriculiformis</i>	Malaysia- Padauk	Papilionaceae	T	LC
2	<i>Albizia lebbek</i>	Kok-ko	Fabaceae	T	LC
3	<i>Bauhinia acuminata</i>	Swal-taw	Fabaceae	S	LC
4	<i>Cocos nucifera</i>	Ohn	Palmaceae	T	LC
5	<i>Ixora collinear</i>	Pona-yate	Rubiaceae	S	-
6	<i>Mangifera indica L.</i>	Thayet	Anacardiaceae	T	DD
7	<i>Mimosa pudica</i>	Hti-kayone	Fabaceae	H	LC
8	<i>Psidium guajava</i>	Malakar	Myrtaceae	ST	LC
9	<i>Pterocarpus macrocarpus</i>	Padauk	Fabaceae	T	EN
10	<i>Tamarindus Indica</i>	Man-gyi	Fabaceae	T	LC
11	<i>Terminalia catappa</i>	Bar-dan	Combretaceae	T	LC
LC= Least Concern, DD= Data Deficient, VU=Vulnerable, EN= Endangered					

Table 4.5.1.2: Fauna Species Can Be Found Near the Project

Sr.	Scientific Name	Myanmar Name	Family	Order	IUCN Status
Fish					
1	<i>Anabas testudineus</i>	Nga Pyay Ma	Anabantidae	Anabantiformes	LC
2	<i>Channa gachua</i>	Nga Yant	Channidae	Anabantiformes	LC
3	<i>Channa panaw</i>	Nga Yant	Channidae	Anabantiformes	LC
4	<i>Oreochromis spp.</i>	Tilabiya	Cichlidae	Cichliformes	LC
5	<i>Poecilia reticulata</i>	Daung Nga	Poeciliidae	Cyprinodontiformes	LC
6	<i>Trichopodus trichopterus</i>	Nga Pyin Sa Lat	Osphronemidae	Anabantiformes	LC
7	<i>Trichopsis vittata</i>	Nga Tout Kout	Osphronemidae	Anabantiformes	LC
Avian					
8	<i>Columba livia domestica</i>	Kho	Columbidae	Columbiformes	LC
9	<i>Corvus macrorhynchos</i>	Kyee Kan	Corvidae	Passeriformes	LC
10	<i>Passer domesticus</i>	Sar Ka Lay	Passeridae	Passeriformes	LC
Reptiles					
11	<i>Daboia siamensis</i>	Mwe-Pway	Viperidae	Squamata	LC

12	<i>Hemidactylus frenatus</i>	Lizard	Gekkonidae	Squamata	LC
13	<i>Naja naja</i>	Mwe-Hauk	Elapidae	Squamata	LC
Mammals					
14	<i>Emballonura monticola</i>	Bat	Emballonuridae	Chiroptera	LC
15	<i>Mus musculus</i>	Mouse	Muridae	Rodentia	LC
16	<i>Rattus annandalei</i>	Rat	Muridae	Rodentia	LC
LC= Least Concern					

Note* This account of fauna is based more on oral tradition or local knowledge than actual sightings.

4.6 Socio-Eco Characteristic

Bago Region boasts both mountains and floodplains. Forests, especially teak, thrive here, while the floodplains are vital for rice cultivation. Rice dominates, covering over two-thirds of available land. Other crops include betel nut, sugarcane, maize, groundnut, sesame, sunflower, beans, pulses, cotton, jute, rubber, tobacco, tapioca, banana, Nipa palm, and toddy. The region hosts fisheries, salt production, ceramics, sugar, paper, plywood, distilleries, and monosodium glutamate.

The township has an industrial zone with several factories, primarily in textiles and shoe-making. Smaller factories and workshops within the city produce food products, plastics, electric meters, motors, wood products, tea, and halwa.

4.6.1 Occupation and Income

Bago Township boasts a diverse economy, supported by a variety of occupations. Agriculture, particularly rice cultivation, plays a pivotal role due to the fertile land in the region. Additionally, residents are engaged in other common vocations such as trade, small-scale manufacturing, and services. These activities span transportation, retail, and education.

Based on Bago Township data from the General Administration Department, the estimated average per capita income for the year 2022-2023 is approximately

3,352,758 kyats. The township's unemployment rate stands at 4.95%. The table below illustrates the number of employed individuals by occupation.

Table 4.6.1.1: Number of employed people by occupation

No.	Occupation	No. of employed people
1	Government staff	4,602
2	Service worker	3,651
3	Agricultural worker	21,604
4	Livestock worker	4,485
5	Sales worker	27,684
6	Craft & industrial worker	27,279
7	Fishery worker	4,568
8	Casual worker	39,429
9	Other	34,888

(Refer: Bago Township profile 2023, General Administrative Department Information)

4.6.2 Infrastructure, Services and Living conditions

Bago City serves as a vital transportation hub, situated 91 kilometers northeast of Yangon. The railway station in Bago Township connects to various other parts of the country. Additionally, the Ayeyarwady River plays a crucial role as a transport artery, and major railway lines crisscross the region. Notably, the upcoming “Hanthawady International Airport” near Bago aims to become Myanmar’s primary international gateway.

The main source of water supply for the daily usage Domestic water is from Bago Township Development Committee water supply system and its own tube well. Drinking water supply is from registered drinking water supply private sector such as Alpine, PMG, Designer, etc.,

Power supply from National grid line is covering electricity for the Bago Region including Industrial Zones. Electricity serves as the primary energy source for

cooking and lighting, although some households also use LPG, kerosene, and other alternatives.

Waste Management: Garbage discarded from residences is collected by the Bago Township Municipality and appropriately disposed of in designated areas. Bago Township Development Committee is monitoring on the quality of water discharged from the industries and households, managing to comply good practices as per standing instruction accordingly not to impact environment via rivers and creeks from developing. Sewage disposal from the propose project will be its own with proper treatment system through septic tanks and soak pits within its location.

The Bago Township has Bago University, eighteen basic education high school, four basic education middle school, five basic education primary school, sixteen nursery school. Bago General Hospital (500 bedded), four station hospital (16 bedded) and five private specialist clinics are situated in Bago Township.

4.6.3 Population

The population of Bago Region is above 4.8 million and that of Bago township is about 462,743 presents with major eight races (Kachin, Kaya, Karen, Chin, Bamar, Mon, Rakhine, Shan). The density of population is estimated above 10 times of that of 1930s. Moreover, not only the rapid growth of population, the development of the city is very speedy.

Matriculation pass rate in 2021-2022 was 49.7 % and the literacy rate is 90.91%. The enrolment rate for school-age children was 100%. Total household in the Bago Township is 105,048 and male/female ratio is shown in below table.

Table 4.6.3.1: Population by age and sex ratio of Bago Township

Age>18			Age<18			Total Population			Male/ Female Ratio
Male	Female	Total	Male	Female	Total	Male	Female	Total	1 : 1.1
132,315	147,861	280,176	87,265	95,302	182,567	219,580	243,163	462,743	

(Refer: Bago Township profile 2023, General Administrative Department Information)

4.6.4 Health Information

Based on data from the General Administration Department for Bago Township, there were 9,612 births and 648 deaths in 2023. The most common health issues in the township are summarized below:

Table 4.6.4.1: Most Common health disease usually happened in Bago Township

Malaria		Diarrheal		Tuberculosis		Dysentery		Hepatitis	
Cause	Dead	Cause	Dead	Cause	Dead	Cause	Dead	Cause	Dead
5	-	921	-	529	-	72	-	-	-

(Refer: Bago Township profile 2023, General Administrative Department Information)

4.6.5 Religion and Cultural Heritage

Bago, also known as Bago, stands as an ancient city within the Bago Region of Myanmar. It boasts a rich history and is home to several significant religious and cultural sites. The majority religion in the Bago Region is Buddhism (93.5%), followed by smaller communities of Christians, Muslims, Hindus, and animists. Despite being a minority, the Mon people continue to hold cultural significance in Bago's heritage.

There are many famous Buddhist Pagoda, Shrine, and Stupa (16 nos. out of 85 nos.), many famous Monasteries (14 nos. out of 620 nos.), Nunnery (106 nos.), and 20 Temples are recorded. Other religious buildings apart from Buddhism are Christian Church (20 nos.), Islam Mosque (14 nos.), Hindu Temple (29 nos.), and Chinese Temple (8 nos.).

In the Nan taw Yar Ward of the Bago Cultural Heritage Zone, there stands a renowned historical palace named “Kan Baw Za Thar Di.” Originally constructed for King Bayinnaung in 1556, the palace comprised 76 apartments and halls. Unfortunately, it was destroyed by fire in 1599 but was later reconstructed in 1990, completing the restoration by 1992. The Kan Baw Za Thar Di Golden Palace in Bago represents a faithful reconstruction of the original Royal palace dating back to the second half of the 16th century.

The Great Audience Hall, the largest structure within the palace, served as the venue where the King received his ministers and officials. This hall is also

referred to as the Royal Lion Throne Hall due to its housing of the Thihathana Throne, also known as the Lion Throne.

Table 4.6.5.1: Historical Place in Bago Township

Name	Location	Cultural Zone	Distance from Study Area
Kan Baw Za Tha Di Palace	NanTawYar Ward	Bago Cultural Zone	4.53 mile

Nearest cultural/historical places for the proposed project; Shwe Gugyi Pagoda is locating at distance about 1.65 mile, Kyaik Pun Pagoda is locating at distance about 2.15 mile and Kanbawzathadi Golden Palace is locating at distance about 4.53 mile.



Figure 4.6.5.1: Kan Baw Za Tha Di Golden Palace (17°19'49.68"N 96°29'35.11"E)

The population of Bago Township by religion is as follows:

Table: Population of Bago Township by religion

No.	Buddhism	Christianity	Hinduism	Islamism	Other Religions	Total
1	431,473	18,313	7,142	3,590	2,225	462,743

(Ref: General Administration Department Bago Township Data 2022-2023)

There is no record of official visual component established in Bago Township.

5. IMPACTS AND RISK ASSESMENT AND MITIGATION MEASURES

The objective of environmental impact assessment is to identify risks and to measure associated impacts which may arise from project activities based on analysis of collected data information and desktop brainstorming study to find suitable way to eliminate, control or mitigate the risk to environment.

Identification and assessment of potential Environmental Impacts including assessment and description of Adverse Impacts and Residual Impacts with presentation of the spatial and temporal characteristics of the impacts using maps, images, aerial photos and satellite images identification and assessment of potential Environmental Impacts including assessment and description of Adverse Impacts and Residual Impacts with presentation of the spatial and temporal characteristics of the impacts using maps, images, aerial photos and satellite images

5.1 Impact and Risk Assessment Methodology

5.1.1 Impact Definition

An environmental impact is defined as a change in the environment or a violation of an environmental standard that results from an action or event that interact with it. The impact can be either positive or negative and actual or potential, and has been described in terms of the following:

- F – Frequency of impact occurrence;
- L – Likelihood of the impact occurring;
- M – Magnitude of size of the impact in the relation to set standards;
- E – Extent or spatial extent of the impact;
- D – Duration of the impact;
- S – Significance - overall importance of the impact.

5.1.2 Impact Assessment

Once an environmental impact is identified, the significance must be assessed before an attempt can be made to mitigate negative environmental impacts, the ultimate aim of the EIA process. The steps involved in the assessment involve the following steps:

Step 1: Identify activity;

Step 2: Identify environmental aspect;

Step 3: Identify environmental impact;

Step 4: Assess significance of environmental impact.

In this study, terminology that was used in assessing the significance of an environmental impact is defined in Table 5-1.

Table 5-1: Terminology ^(5, 6) Used to Describe and Assess Environmental Impacts

Category	Terminology		Definition
Scoring of Impact	Frequency	Continuous - 5 Frequent - 4 Infrequent - 3 Rare - 2 Single Event - 1	Uninterrupted or on daily basis More than 10 times or > 50% Between 5 – 10 times or > 10% Less than 5 times or < 10% Single Event in a project period
	Likelihood	Certain - 1 Likely - 0.75 Unlikely - 0.35 Improbable - 0.1 Not credible/ probable - 0	Impact possibility estimated to be 100% Impact possibility estimated as > than 50 but < 100% Impact possibility estimated as > than 20 but < 50% Impact possibility estimated as greater than zero but < 20%. Zero estimated possibility of impact
	Magnitude ^(4)	Very low - 1 Low - 2 Medium - 3 High- 4 Very High - 5	Parameter < 10 % limit criterion Parameter 10 – 50 % limit criterion Parameter 50 – 100 % limit criterion Parameter 100 – 200% limit criterion Parameter > 200 % limit criterion
Potential Significance	Significance	Negligible < 2 Low – 2 - 4 Medium – 5 - 9 High - 10 -16	Frequency x Likelihood x Magnitude (see Tables 6-2 and 6-3 below)

		Critical - 17+	
Description of Impact (NOT SCORED)	Extent	Local Regional National International	Less than 2 km. More than 2 km, and within Myanmar Continental Shelf Impact to shore activities Beyond Myanmar Continental Shelf
	Duration	Short Medium Long	Within project period (30 + 60 days) Not more than 6 months after the project period Greater than 6 months
Type of Impact	Action	Direct Indirect	Impact caused solely by activities within the scope of the project Impact caused by activities partly outside the scope of the project.

All terms are characteristics of the impact (s). For example, duration refers to duration of impact, not the activity causing it.

Definition given is for resources in which numerical criteria are used to evaluate impacts. For resources in which numerical criteria are not appropriate qualitative criteria have been applied.

A preexisting matrix has been constructed of all events considered, the hazard recorded and the receptor deemed to be most affected has been taken as being the worst-case impact that hazard. For example, if the hazard arising from oil spill was deemed to rate a minor impact (2) for coral reef, and a medium impact (6) for fisheries, with all other resources considered unaffected, then the moderate impact (6) would be taken as the worst-case impact for that hazard. Thus, the overall impact for this event would be rated as medium.

The significance of each impact is the product of Frequency x Magnitude x Likelihood of the Impact Occurring (See Table 5-1) ranking is divided into five orders of significance, CRITICAL, HIGH, MEDIUM, LOW and NEGLIGIBLE as shown in Table 5-2 and Table 5-3 below.

Existing engineering control, standard procedures and standard specification that have been in place as mitigation measures to reduce associated impact or risk were also taken into account in the impact assessment.

Table 5-2: Environmental Impact Evaluation Criteria Table

Frequency X Likelihood	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
		Magnitude				

Table 5-3: Environmental Impact Significance

Score (Frequency x Likelihood x Magnitude)	Significance
> 17	Critical
11 - 16	High
6 - 10	Medium
2 - 5	Low
<2	Negligible

For example, the impact category following an accidental event may be minor (2), but the probability of the event to occur may be medium (3) so the environmental risk for the event would be (6) and the risk ranking would be medium.

5.2 Impact and Risk Identification, Assessment and Mitigation

The following section shows the potential environmental impacts and mitigation measures of all the components proposed for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

5.2.1 Identification and assessment of potential Environmental Impacts

Identification and assessment of potential environmental impacts which may outcome from the proposed project are listed as below: -

Findings

Activity	Findings
Development Phase (1 Year) (Completed)	
Location	Cleared land acquisition Locate outside protected areas Land rented under agreement.
Design	Designed effectively to construct as layout plan within rented land area and simply to avoid blocking Historical and Cultural view
Construction	LTICL followed BTDC instruction in waste management Used Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. Worked at Day time only
Installation	LTICL followed BTDC instruction in waste management Used Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. Worked at Day time only
Operation (20 Year) (On going process)	
Operation	Following BTDC instruction in waste management Using Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. Working at Day time only Fire Safety System, Security System, Social Welfare Program in place
Maintenance	Following BTDC instruction in waste management Using Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. Working at Day time only
Abandonment (3 month to 1 Year) (TBA)	
Deinstallation	Plan to follow BTDC instruction in waste management Plan to use Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. Plan to work at Day time only
Termination of permanent staff	Plan to compensate according to Myanmar Labor Law

LTICL keens to implement in Environmental management & monitoring programs in accordance with official approved EMP for the proposed project

5.2.2 The design, layout, functioning, management and implementation of appropriate impact and risk mitigation measures

Activity	Aspect	Impact	Mitigation Measure
Development			
Location	Land acquisition issue Locate inside protected areas	Social, Biological, Historical, Cultural,	Cleared land acquisition Locate outside protected areas Land rented under agreement.
Design	View	Historical, Cultural	Designed not to cover the historical and cultural view
Construction	Waste & wastewater	Environmental Quality (Soil, Water, Odor)	Followed BTDC instruction in waste management
	Generator operation	Noise & Air Quality	Used Soundproof Generator and Less Sulphur Content Diesel & operate at Day time.
	Activity disturbing to surrounding environment	Social	Worked at Day time only
Installation	Waste & wastewater	Environmental Quality (Soil, Water, Odor)	Followed BTDC instruction in waste management
	Generator operation	Noise & Air Quality	Used Soundproof Generator and Less Sulphur Content Diesel & operate at Day time.
	Activity disturbing to surrounding environment	Social	Worked at Day time only
Operation			
Operation	Waste & wastewater	Environmental Quality (Soil, Water, Odor)	LTICL to follow BTDC instruction in waste management
	Generator/Compressor operation	Noise & Air Quality	To use Soundproof Generator and Less Sulphur Content Diesel & operate at Day time.
	Activity disturbing to surrounding environment	Social	To Work at Day time only
Operation	Waste & wastewater	Environmental Quality (Soil, Water, Odor) Noise & Air Quality	To follow BTDC instruction in waste management

Activity	Aspect	Impact	Mitigation Measure
	Generator/Compressor operation Activity disturbing to surrounding environment	Social	To use Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. To Work at Day time only
Abandonment			
Deinstallation	Waste & wastewater Generator operation Activity disturbing to surrounding environment	Residual Environmental Quality (Soil, Water, Odor) Noise & Air Quality Social	To follow BTDC instruction in waste management To use Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. To work at Day time only
Closeout of project activity	Termination of project permanent staff	Social	To compensate according to Myanmar Labor Law

5.2.3 Characterization and Assessment of Any Residual Impacts and Risks and Comparison with Applicable Regulations, Standards and Guidelines

The proposed project is CMP based electronics manufacturing and processing operation which using installed machinery and import raw materials to manufacture contract electronic products and processing to export back. The manufacturing process apply reusing utility water repeatedly in cooling system only and no wastewater discharging into drain. Hence it is considered that very rare to occur residual impacts and risks from the proposed project. In addition, there will be environmental quality (ref. NEQEG General Guidelines) monitoring plan to ensure no residual impact.

5.2.4 Comprehensive monitoring plan

Comprehensive monitoring plan for the operation activities throughout the project period (development, operation, abandonment) is outlined in below Table.

Environmental studies for the proposed project; LTICL, has been carried out covering impact assessment and mitigation measures in section 5 and

comprehensive monitoring plan for the proposed project operation has been summarized in below Table.

Table: Summary of Comprehensive monitoring plan for the proposed project operation

Activity	Monitoring & Managing Task	Frequency	Responsibility
Project Development	Monitoring & reporting to ECD	6 monthly	LTICL
Waste, Dust, & Noise from Land Clearing	Monitoring amount of general solid waste prior to send BTDC Dust & Mud control by regular water spray at dry season & wash down the truck prior to go in and out	Weekly/ when required	LTICL / Assigned Contractor
Waste, Dust, & Noise from Superstructure development	To follow BTDC instruction and notification on construction waste Segregate and reuse to maximize usage as much as possible Dispose non-reusable waste to appropriate/approved recycling Center or dumping ground defined by BTDC All waste generated from construction to collect, record, and dispose at BTDC designated location The truck using for waste transport to wash down all contaminated muds prior to move in and out. To operate using sound proof type machine at only daytime when background noise is high To use proper scaffolding and cover net for the high rise building which complying with BTDC instruction	Daily (work day only)	LTICL / Assigned Contractor
Movement of cargo vehicle/truck using in project development	Optimize transportation facility. Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing	Daily (work day only)	LTICL / Assigned Contractor

Activity	Monitoring & Managing Task	Frequency	Responsibility
	Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users To follow BTDC instruction and notification on construction project vehicle		
Discharge of industrial waste (if any)	Monitor & pack securely with label prior to dispose at BTDC designated area	when required only	LTICL / Assigned Contractor
Project Operations	Monitoring & reporting to ECD	6 monthly	LTICL
Discharge of treated domestic wastewater	Monitoring leakage / overflow of domestic wastewater	Weekly	LTICL
Discharge of general solid waste	Monitoring amount of general solid waste prior to send BTDC	Weekly/ when required	LTICL / BTDC
Discharge of industrial waste (if any)	Monitor & pack securely with label prior to dispose at BTDC designated area	when required	LTICL / BTDC
Discharge of Canteen waste	Monitor amount of canteen waste prior to supply for animal feeding purpose	Daily (work day only)	LTICL
Water Usage	Monitor water usage for the project	Daily/Yearly	LTICL
Power Usage	Monitor electricity usage for the project	Monthly/Yearly	LTICL
Diesel Fuel Usage	Monitor Diesel Fuel Usage for the standby generator (if any)	Monthly/Yearly	LTICL
Project Abandonment	Monitoring & reporting to ECD	6 monthly	LTICL

Environmental Management Plan of the proposed project presented in details at Section (7).

5.3 Relevant Maps in proper scale clearly indicating the location of sources of Adverse Impacts, the spatial and temporal distribution of such impacts and with reference to the Description of the Surrounding Environment, the components that are likely to be impacted and the nature of the impacts.

It is observed that the proposed project activity and the components with suitable mitigation measures that are unlikely to be impacted to the surrounding environment.

It is observed that the proposed project activity and the components that are unlikely to be impacted to the surrounding environment.

5.4 Summary of Impacts and Mitigation Measure

The potential impacts arising from the proposed project can be categorized as having Low residual risk levels. No residual risks were assessed as Medium, High or Severe. Attachment 1 presents a summary of the assessed level of residual (post-mitigation) environmental risk associated with the project activity. Table 5.3 also summarizes the key mitigation strategies and measures that LTICL and the contractor(s) will implement throughout the project period (please note that development phase is already completed and currently is operation phase operating) to ensure that impacts are either eliminated or reduced to levels that are environmentally sound and acceptable.

Activity	Risk	Impact	Mitigation Measure
Development			
Location	Land Acquisition Force Relocation Conflict	Social, Biological	Cleared from land acquisition issue. Locate outside protected areas. Land rented under agreement.
Design	View	Historical, Cultural	Designed not to cover the historical and cultural view

Construction	Waste and wastewater, generator operation	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Managed not to impact environmental and social by LTICL during development phase
Installation	Waste and wastewater, generator operation	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Managed not to impact environmental and social by LTICL during development phase
Operation			
Operation	Waste Conflict,	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Environmental Management Plan implementation
Maintenance	Noise, Dust, Pollution, Waste Conflict	Soil Contamination by waste & wastewater Ground water contamination by waste, Noise & Air Pollution from generator operation	Environmental Management Plan implementation
Abandonment			
Termination	Conflict,	Residual Environmental, Social	LTICL to manage no impact to environmental and social

Environmental Impact and Mitigation Measures are described for the operation activities throughout the project period (development, operation, abandonment) with potential to significantly impact the environment are described in below Table.

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Table 5.4: Summary of Environmental Impact Assessment and Proposed Mitigation Measures

Activity	Aspect	Issues and Impacts	Overall Assessment and Scoring						Potential significance before mitigation measure	Mitigation Measure	Scoring of Impact (F-Frequency, L-Likelihood, M- Magnitude)			Potential significance after mitigation measure
			Extent	Duration	Action	Scoring of Impact (F-Frequency, L-Likelihood, M- Magnitude)					F	L	M	
						F	L	M	S					
Developing Phase (12 Month)														
Location	Land use	Social, cultural and historical	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Awareness on local cultural and historical practice. Social welfare and CSR program. (Arranging meals, drinking water, transportation, health, accommodation, etc.,) Nearest cultural/historical places; Shwe Gugyi Pagoda is locating at distance about 1.65 mile, Kyaik Pun Pagoda is locating at distance about 2.15 mile and Kanbawzathadi Golden Palace is locating at distance about 4.53 mile	1	0.75	2	1.5
		Biodiversity and wildlife	Local (Less than 2 km)	Short (within operation phase))	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	To follow Forest Law to protect biodiversity and wildlife.	2	0.35	2	1.4
		Protected area	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	Protected areas are far from the propose project. (Moe Yun Gyi Inn is locating at distance about 21 miles)	2	0.35	2	1.4
		Land acquisition and resettlement	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Regular consulting with relevant authority and community. Perform CSR activity.	1	0.75	2	1.5
Design	General Building and facility design and operation	Energy consumption	Local (Less than 2 km)	Short (within operation phase))	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Eco-friendly facility design, high-efficiency machinery and equipment, optimize in utilization of energy and natural resources for wise use.	1	0.75	2	1.5

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			Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Include design not to block view of cultural and historical buildings, pagoda, temple, etc.,	1	0.75	2	1.5
		Environmental	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Include design for climate change and earthquake vulnerability, waste collecting and disposal site, waste water treatment/filtration systems, soundproof machinery and equipment, storm and rain water catchment drain.	1	0.75	2	1.5
		Health	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Standby transport system, first aid point, accommodation, ventilation, lighting, rest room, smoking area.	1	0.75	2	1.5
		Safety	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Fire and natural disaster emergency response procedure, muster point, non-smoking area.	1	0.75	2	1.5
Pre-construction	Material, equipment and machinery	Quality of material, equipment and machinery	Local (Less than 2 km)	Short (daytime only in developing phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Using registered, identified, and standard quality material, equipment and machinery only. (e.g. using ODS free Air Conditioning Machine)	1	1	2	2
	Environmental	Dust	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	1	3	9	Watering dusty area.	3	1	1	3
		Noise	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Working only at day time while background noise from other activities is high.	1	1	2	2
		Traffic	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	3	6.75	Short period of transport and less frequency. Comply with road user rules and regulation.	3	0.75	2	4.5

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				operation phase)	by activities within the scope of project)									
		Visual	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	Acknowledge good existing practice. Follow BTDC instructions.	2	0.35	2	1.4
	Social	Community health	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Awareness on seasonal flues, rabies, dengue, snake bite, diarrhea, etc.,	3	0.35	2	2.1
		Occupational health & Safety	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Awareness on heatstroke, accident & incident etc., Briefing and debriefing on schedule task.	3	0.35	2	2.1
Construction	Environmental	Air	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	To follow building construction procedure.	2	0.35	2	1.4
		Dust	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	4	1	2	8	Watering dusty area. Regular housekeeping.	3	0.75	2	4.5
		Noise	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Working only at day time while background noise from other activities is high.	1	1	2	2
		Wastewater	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	4	0.75	2	6	Treatment system (filtering) prior to dispose. Proper sewage system.	4	0.75	1	3

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			Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	4	1	2	8	On-site waste management system. Apply 3R (Reduce, Reuse, and Recycle), optimize material usage. To send Bago Township Development Committee for proper disposal.	4	0.35	2	2.8	
		Soil disturbance / erosion	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	1	2	6	Retaining wall, suitable drainage system.	2	0.75	1	1.5	
		Traffic	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	3	6.75	Short period of transport and less frequency. Comply with road user rules and regulation.	3	0.75	2	4.5	
	Social	Conflict	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Regular consulting with relevant authority and community. Perform CSR activity.	2	0.75	2	3	
		Community health	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Awareness on seasonal flues, rabies, dengue, snake bite, diarrheal, etc., Perform CSR program.	3	0.35	2	2.1	
		Occupational health & safety	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Awareness on heatstroke, accident & incident etc., Social welfare program. (Arranging meals, drinking water, transportation, health, accommodation, etc.,) Briefing and debriefing on schedule task.	3	0.35	2	2.1	
	Operation Phase (20 Year)														
	Transportation	Environmental	Air	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	To follow Myanmar's rules and regulation. Vehicle Regular Maintenance. Apply transport management plan.	2	0.35	2	1.4
Traffic			Local (Less	Short (within	Direct (Impact caused solely	2	0.75	2	3	Comply with road user rules and regulation. Apply transport management plan.	2	0.35	2	1.4	

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				operation phase)	by activities within the scope of project)									
	Social	Safety	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	Comply with road user rules and regulation. Apply transport management plan.	2	0.35	2	1.4
Storage (Raw Material)	Environmental	Odor	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Utilize silo storage system to prevent odor coming out from raw materials. Manage storage capacity to balance with project storage and production capacity.	3	0.35	2	2.1
	Social	Community health	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Awareness on seasonal flues, rabies, dengue, snake bite, diarrheal, etc., Perform CSR program.	3	0.35	2	2.1
		Occupational health & safety	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	Standard lighting, air ventilation system, fire safety system, regular housekeeping and supervision.	2	0.35	2	1.4
Processing (Daily Operation)	Environmental	Wastewater	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	Water filtering/treatment system. Install suitable drainage system.	2	0.35	2	1.4
		Noise	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Regular Maintenance for equipment. To use skill labor/mechanic. HSE awareness. PPE (goggle, glove, ear muff, etc.,)	3	0.35	1	1.05
		Odor	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Utilize silo storage system to prevent odor coming out from raw materials. Manage storage capacity to balance with project storage and production capacity.	3	0.35	2	2.1

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			Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	To follow Forest Law to protect biodiversity and wildlife.	2	0.35	2	1.4
		Operational solid waste	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	4	1	2	8	On-site waste management system. Apply 3R (Reduce, Reuse, and Recycle), optimize material usage. To send Bago Township Development Committee for proper disposal.	3	0.35	1	1.05
	Social	Community health	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Awareness on seasonal flues, rabies, dengue, snake bite, diarrhea, etc., Perform CSR program.	3	0.35	2	2.1
		Occupational health & safety	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Standard lighting, air ventilation system, first aid, natural disaster and emergency management plan, fire safety system, regular housekeeping. HSE awareness.	2	0.35	2	1.4
Project maintenance	Environmental	General waste	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	On-site waste management system. Apply 5R (Reject Reduce, Reuse, Recycle, and Return), optimize material usage. To send Bago Township Development Committee for proper disposal.	3	0.75	1	2.25
Packaging	Environmental	General waste	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	On-site waste management system. Apply 5R (Reject, Reduce, Reuse, Recycle, Return), optimize material usage.	3	0.75	1	2.25
Accommodation	Environmental	Domestic Wastewater	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Treatment system (septic tank).	3	0.35	1	1.05
		General waste	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	On-site waste management system. Apply 5R (Reject Reduce, Reuse, Recycle, and Return), optimize material usage.	3	0.35	1	1.05

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				operation phase)	by activities within the scope of project)									
	Social	Occupational health & safety	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Awareness on heatstroke, accident & incident etc., Social welfare program. (Arranging meals, drinking water, transportation, health, etc.,)	2	0.35	2	1.4
		Conflict	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Regular consulting with relevant authority and community. Guideline for employee residing at dormitory.	2	0.35	2	1.4
Abandonment Phase (3-6 month)														
Deinstallation	Environmental	Dust	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	1	2	6	Watering dusty area. Regular housekeeping.	3	0.75	1	2.25
		Noise	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	3	3	Working only at day time while background noise from other activities is high.	1	1	2	2
		Dismantling waste	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	1	2	4	On-site waste management system. Optimize material usage. To send Bago Township Development Committee for proper disposal.	2	1	1	2
		Soil disturbance / erosion	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	1	2	6	No disturbance on existing retaining wall, suitable drainage system. Rehabilitation as necessary.	2	0.75	1	1.5
		Traffic	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Short period of transport and less frequency. Comply with road user rules and regulation.	3	0.75	1	2.25

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		Community health	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	0.75	2	1.5	Awareness on seasonal flues, rabies, dengue, snake bite, diarrheal, etc., Perform CSR program.	1	0.35	2	0.7
		Occupational health & safety	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	0.75	2	1.5	Awareness on heatstroke, accident & incident etc., Social welfare program. (Arranging meals, drinking water, transportation, health, accommodation, etc.,)	1	0.35	2	0.7
Transportation	Environmental	Air	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	2	0.75	2	3	To follow Myanmar's rules and regulation. Vehicle Regular Maintenance. Apply transport management plan.	2	0.35	2	1.4
		Traffic	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Comply with road user rules and regulation. Apply transport management plan.	2	0.35	2	1.4
	Social	Safety	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	3	0.75	2	4.5	Comply with road user rules and regulation. Apply transport management plan.	2	0.75	2	3
Termination	Social	Conflict (Loss of job, value of life)	Local (Less than 2 km)	Short (within operation phase)	Direct (Impact caused solely by activities within the scope of project)	1	1	4	4	Regular consulting with relevant authority and community. Perform CSR activity.	1	1	3	3

F=Frequency of Impact Occurrence

L= Likelihood of the Impact Occurring

M= Magnitude of the size of the impact in relation to set of standards

S= Significant - Overall importance of the impact

5.5 Study Area of the Proposed Project

The study area of the project will cover the operation area within rented land area. The areas will be used to identify sensitive receptors in the assessment of impacts on physical resources, biological resources, human use values, and quality of life values. Examples of sensitive receptors are schools, temples, water resources, industrial areas, etc.

5.6 Data Collection

Data collected for this EMP include details of the proposed project environmental baseline conditions of the potentially affected areas. Data were obtained from primary and secondary sources.

Primary data sources include:

- Ambient Environmental quality baseline survey for surface water, groundwater quality, and soil survey conducted in 2024;
- Ambient Environmental quality baseline survey for noise and air quality survey conducted in 2024;
- Focus Group interview meetings with staff in 2024

Secondary data sources came firstly from General Administration Department website internet and others from literature, relevant authorities, and previous reports conducted in and around the project area. The secondary data sources are cited throughout this report.

5.7 Ambient Environmental Quality Component

On 9th May 2024, a field study was conducted in the project area to find out the ambient environmental quality (soil quality, water quality, air quality, noise emission, etc.). The principal objective of environmental quality monitoring program was to obtain quantitative baseline data for the affected area and calculate the impact on the surrounding environment due to the project activity. According to the monitoring results, all parameters are within the guidelines.

5.8 Public Consultation

The proposed project includes operating of within rented land area locating in Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region. The public involvement for this EMP consisted of four parts: focus groups from officials of Union Government, Regional Government, key informant interviews, Factory staff, and representative of LTICL.

5.9 Scope of Assessment

The EMP study for the proposed project has been done following the scope outlined. The EMP Method is organized with environmental data collection, conducting of potential environmental risk & impact assessment, considering mitigation measures for the calculated environmental risk, and planning and commitment of environmental management plan for the proposed project; LTICL “Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis” enterprise and details is provided in Section5: Screening of Potential Environmental Risk Assessment and Mitigation Measures.

The Initial Environmental Examination for the proposed project has been carried out for potential impacts during the following stages of the project planning and implementation:

- (i) **Location impacts.** Impacts associated with site selection, including impacts on environment and resettlement or livelihood related impacts on communities
- (ii) **Design impacts.** Impacts arising from project design, including the technology used, scale of operations, discharge standards etc.
- (iii) **Construction impacts.** Impacts result from upgrading/construction activities including site clearance, earthworks, civil works, etc.
- (iv) **O&M impacts.** Impacts associated with the operation and maintenance of the infrastructure built in the proposed project; Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis.

5.10 Environmental Impacts and Mitigation: Location and Design

In many environmental assessments there are certain effects that, although they will occur during either the construction or operation stage, should be considered as impacts primarily of the location or design of the project, as they would not occur if an alternative location or design was chosen.

In the case of this project there are no impacts that can clearly be said to result from the design or location. This is because:

- (i) The proposed project will be sited at the rented total land area 1.4 Acre (51700 sq. m), Bago Township, Bago Region. The landlord is cleared for the land ownership before by making suitable land grant from relevant authority; land management committee, so there is no land acquisition involved. (Land Rent/purchase agreement id detailed in Annexure – 4)
- (ii) The proposed project site within existing land is categorized as Town Land Area; the Relevant Authority. The land rent/purchase agreement for twenty between landlords and Line Tech Industrial Company Limited (LTICL) has been made since 2019 after BRIC approval (Annexure – 4)
- (iii) The proposed project is developing within its capacity to operate Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis for local market which is currently in developing stage.
- (iv) The infrastructure involved relatively construction of main building for factory & warehouse, and installation of facility will be conducted by qualified contractor and operation will be performed by competent staff and well-trained workers, so it is unlikely that there will be major environmental impacts;
- (v) Any sensitive environmental receptors (surface waters) have been protected by detailed design and proper engineering of landlord before rent. Proper operation and maintenance of the site will be critical to protecting the environment; therefore, training for staff is built into the project.
- (vi) The project site is sufficiently elevated above water bodies to avoid flooding and impacts to groundwater.

- (vii) The collected wastes throughout the business will be disposed at designated disposal site in accordance with standing instruction from Authority of Bago Region; BTDC, so the project will not have impacts on surrounding inhabitants.
- (viii) There is no evidence of sensitive receptors occurring within 500 m of the site.
- (ix) The proposed project will be generated by the employee (Local personnel totally estimated 120 Nos.) and expected in supporting significant benefits to add as part of the country GDP.

If new / different operations / activities arise, the potential environmental impacts should be assessed by the LTICL. Accordingly, all proposed operations modifications should be referred to the LTICL General Manager at the conceptual or design stage to ensure timely input.

5.11 Land Acquisition and Resettlement

There are no resettlement issues anticipated for the location of proposed project area; LTICL land, Bago Township, Bago Region. The project of Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis is proposed on available private own reserved special land, Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region. Hence, permanent land acquisition is not envisaged. (Detailed in Annexure – 4)

5.12 Environmental Impacts and Mitigation: Construction/Installation

There will be physical changes in pre-operational phase at the site as a result from developing activities by the awarded contractor (such as building construction, facility installation and commissioning works, etc.), and this relatively some amount of quantity of construction waste will be produced with minor physical impacts on environment (such as air quality (dust), soil quality, topography, etc.) at the contractor work site. LTICL ensures that awarded contractor is following in good waste management practices throughout construction period, even for short term activity, targeting to maintain zero environmental impact.

The adjacent and or within proposed project area does not define as special area for protecting biodiversity. There are no protected areas in the vicinity of this site and no special ecological interest; because the proposed factory area, is established as Industrial Zone (1), Bago Township, Bago Region under national development purposes. Developing and Installation should therefore have no major ecological impacts.

5.13 Environmental Impacts and Mitigation: Operation & Maintenance

LTICL is going to operate the proposed project; Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis; using International Standard Facility accordingly estimated in Table 3.4 and Annexure – 8 after completion of development phase while maintaining good practices in Health, Safety, & Environmental Standard under Myanmar laws & regulations, and procedures & instructions.

LTICL will be responsible for operating LTICL facilities and necessary staff training and financial assistance will be given by the LTICL. All management activity is complying with the Myanmar Rules & Regulation, Procedures & Standing Instructions. Clearly it is imperative that LTICL maintains in proper working order in accordance with MIC Letter.

Daily waste produced from operating of normal operation is mainly general waste and utility wastewater. Waste management for the proposed project will be included in the environmental management plan; general solid waste will be disposed at BTDC designated area and domestic waste water will be treated properly prior to dispose into drains location within LTICL rented land area by Operation & Maintenance team. (Annexure – 11)

General waste which may come out from the operation is cut pieces of wool, packing paper, etc., only and it can be controlled by using 3R rules (reducing, reusing, and recycling) by skilled workers through proper training by LTICL. Canteen waste generated can attract flies, rats/rodents' population and creation of related diseases inside project area if there is proper canteen waste manage system not in place so that requiring regular monitoring and it will be included in EMP. (Annexure – 11)

Wastewater source from project operation is domestic wastewater (estimated 10 cum/day) and produced sewage water are treated using septic tank system at proposed project site. Proposed project area has concrete open drainage system for rainwater and the drainage system is immediately connecting public drain, Bago Township, Bago Region. (Annexure – 11)

Operation of proposed project & Storage of raw materials and products required precaution as it has potential to cause fire easily. The materials store, warehouse and factory building have been properly designed with proper ventilation system to control room temperature and fire protection system (such as fire extinguisher, etc.) and dedicated staff will be trained for systematic firefighting. (Annexure – 11)

LTICL plans to operate by using national grid of Myanmar Government power supply system for normal operation and arranged to maintain continuous operation with emergency power supply system by using standby diesel generator and gas turbine while experiencing power supply outage from national grid. Therefore, there will be minimum impact from the operation of diesel generator and can be considered as negligible.

LTICL environmental management plan will be run by Factory workforce team. Capacity building, worksite education campaigns and other support provided by LTICL are aimed at promoting the long-term successful operation of the project.

To ensure further environmental protections of surrounding area as well as factory workers, the LTICL should be required to ensure that:

- a. Identified Materials/Chemicals come with MSDS/CSDS are to store separately in terms of its category at designated chemical storage area
- b. Chemical storage area to set up with necessary safety gear; First Aid Point / Eye wash station, etc., (which already included in designed stage)
- c. No unidentified or expired chemicals at chemical storage area on site
- d. No toxic materials (fuel, oil, cement, etc.) are stored at or near the site;
- e. The LTICL's Method Statement includes adequate safety measures to prevent fuel and other spills as a result of accidents.

The other aspect of the work that may have economic implications is the transportation materials/products to/from project worksite/destination locations. This will require a few numbers of vehicle movements if use road transport method, which could not disrupt traffic, particularly if such vehicles were to enter the town. This activity will be implemented by the LTICL, and the following precautions should be adopted to reduce effects on traffic:

- (i) Plan transportation routes carefully to prevent heavy vehicles entering Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region; and ensure that if this cannot be avoided, vehicles use main roads only, and do not use narrow local roads,
- (ii) Schedule transportation activities to avoid peak traffic periods.

Operation activities of LTICL inevitably produce minimum to medium level noise during diesel generator operating is generally the factors that disturb people who live or work in the vicinity. These should however not be major problems in this case as business operating only day time while background noise environment in place and by using soundproof diesel generator.

The health and safety of workers will be protected by measures included in a Health and Safety Plan, which the LTICL will be required to produce and apply. Even though areas are sparsely populated as densely developed with other industrial activities, this should include measures to assure the safety of the public.

The plan should thus require:

- (i) Exclusion of the public from project operating work site;
- (ii) Provision and use of appropriate Personal Protective Equipment (PPE) by all workers;
- (iii) Health and Safety Training for all site personnel;
- (iv) Documented procedures to be followed for all site activities;
- (v) Accident reports and records; etc.,

Operation work can provide long-term socio-economic gains for local communities if LTICL employ local people in the workforce. To ensure that these benefits are directed to communities those are most affected by the work, LTICL encouraged employing at least 50% of their workforce from communities in the vicinity of operation site. This will help to mitigate the impacts of any disturbance as well as creating a positive impression of the project. Building a workforce from mainly local people will also avoid problems that can occur if workers are imported, including social difficulties in the host community and issues of health and sanitation in poorly serviced temporary accommodation camps.

Operation Impacts:

- a. Project operating activities associated with will result in increase in daytime noise levels. Impacts have to be mitigated through procurement of equipment/vehicles with inbuilt mechanism to arrest high noise levels. Operating during the night time is to be strictly avoided.
- b. Health impact on Operation workers associated with back pain, stress, eye sight problem, and noise generation. Workers to be provided with appropriate PPEs and proper equipment & tools.

5.14 Environmental Impacts and Mitigation: Abandonment

LTICL Project Workforce Team will be responsible for LTICL Project facilities and will be supervised by the LTICL BOD. All LTICL management activity is required to comply with the Myanmar Rules & Regulation, Procedures & Standing Instructions. Clearly it is imperative LTICL maintains LTICL proposed project in proper working order in accordance with wholly foreign owned agreement.

The Proposed Project abandonment phase will include the following activities:

- Reinstate & perform housekeeping the Project area rented land and building;
- Solve any environmental & other related issue which may come out from the project;
- Check & clarify by relevant authority to ensure no issues left from the project; and
- Fade out of LTICL Project activities

5.15 Environmental Impact Assessment and Mitigation Action for LTICL

Most of the potential impacts associated with normal operation of the LTICL relate to the storage and disposal of wastes. A waste management plan in complying with standing instruction under Bago Township Development Committee, BTDC. Other activities with potential to significantly impact the environment are presented detailed in Attachment - 1.

Environmental Impact Assessment Checklist for the proposed project and presented in below table

Table 5.15.1: Environmental Impact Screening Checklist for proposed project

A. Project Development Phase			
Environmental Impact Screening Questions	Yes	No	Remarks
1. Project Siting			
Is the project area			
• Conflicts in Land use?		X	The rented land is cleared for the proposed project under administration of Bago Region Government and with acknowledgement from Bago Region Parliament
• Densely populated?		X	
• Heavy with development activities?		X	
• Adjacent to or within any environmentally sensitive areas?		X	
• Cultural heritage site		X	
• Protected Area/ Reserve Forest		X	
• Wetland		X	
• Mangrove		X	
• Estuarine		X	
• Buffer zone of protected area		X	
• Special area for protecting biodiversity		X	
• Bay		X	
• View		X	
2. Potential Environmental Impacts			
Will the Project cause...			
• Impacts on the sustainability of associated with sanitation and solid waste disposal systems and provided their interactions with other urban services.		X	Not envisaged Mitigation measures

A. Project Development Phase			
Environmental Impact Screening Questions	Yes	No	Remarks
• Deterioration of surrounding environmental conditions due to rapid urban population growth, commercial and industrial activity, and increased waste generation to the point that both manmade and natural systems are overloaded and the capacities to manage these systems are overwhelmed?		X	Not envisaged Mitigation measures
• Degradation of land and ecosystems (e.g. loss of wetlands, coastal zones, watersheds and forests)?		X	
• Impairment of historical/cultural monuments/areas and loss/damage to these sites?		X	
• Degradation of aesthetic and property value loss?		X	
• Dislocation or involuntary resettlement of people		X	
• Nuisance to neighboring areas due to noise, etc.?		X	
• Noise and dust from installation activities?	X		Temporary noise from installation activities will generate, the noise can be minimized by working only at day time while background noise from other activities is high.
• Emission of potentially toxic volatile organics from site?		X	
• Degrading of air quality from standby diesel generator operating?		X	The Design consideration will take care of contamination of air quality from standby generator operating Mitigation measures to use low Sulphur Diesel fuel for backup power generator
• Any high vibration related activity?		X	
• Public health hazards from odor, smoke from fire, and diseases transmitted by flies, insects, birds and rats?		X	
• Surface and ground water pollution from operation?		X	The Design consideration will take care of surface and ground water pollution from operation

A. Project Development Phase			
Environmental Impact Screening Questions	Yes	No	Remarks
• Deterioration of water quality as a result of contamination of receiving waters?		X	
• Contamination of ground and/or surface water by domestic water from disposal?		X	Proper drainage design together with suitable waste water treatment system to be installed to meet international industrial standard port within proposed project area
• Social conflicts between construction workers from other areas and community workers?		X	No impact will take place
• Traffic disturbances due to construction material transport?		X	The Development Phase involves major construction activity. Project Vehicles will be managed through Journey Management Plan and follow BTDC instruction.
• Temporary silt runoff due to construction?		X	Not envisaged but will be mitigated through better management practices if some such situation emerges
• Soil erosion, Land slide?		X	

B. Project Operation Phase			
Environmental Impact Screening Questions	Yes	No	Remarks
1. Project Operation			
• Is the project operation operating using/generating			
Chemicals?	X		Mitigation measures: to use approved chemicals on site by skilled labor
Power generator?	X		Mitigation measures: Soundproof system Generator
High Vibration?		X	
Odor?		X	
Dust?		X	

B. Project Operation Phase			
Environmental Impact Screening Questions	Yes	No	Remarks
Smoke from power generator running?	X		Mitigation measures: to use less content of Sulphur and routing maintenance on power generator
Wastewater from project operation?		X	Mitigation measure: reuse the utility water if there is watercooler system
Hazardous waste from operation?		X	Mitigation measures: collect hazardous waste and pack securely with hazardous waste label separately from general waste and handover to BTDC verified waste collector for hazardous waste
General solid waste from operation?	X		Mitigation measure: collect and handover to BTDC verified waste collector
2. Potential Environmental Impacts			
Will the Project cause...			
Impacts on the sustainability of associated with sanitation and solid waste disposal systems and provided their interactions with other urban services.		X	Not envisaged Mitigation measures
Deterioration of surrounding environmental conditions due to rapid urban population growth, commercial and industrial activity, and increased waste generation to the point that both manmade and natural systems are overloaded and the capacities to manage these systems are overwhelmed?		X	Not envisaged Mitigation measures
Degradation of land and ecosystems (e.g. loss of wetlands, coastal zones, watersheds and forests)?		X	Not envisaged
Degradation of aesthetic and property value loss?		X	Not envisaged
Nuisance to neighboring areas due to noise, etc.?		X	Not envisaged Mitigation measures

B. Project Operation Phase			
Environmental Impact Screening Questions	Yes	No	Remarks
Public health hazards from odor, smoke from fire, and diseases transmitted by flies, insects, birds and rats?		X	Not envisaged Mitigation measures
Deterioration of water quality as a result of contamination of receiving waters?		X	Not envisaged Mitigation measures
Contamination of ground and/or surface water by domestic water from disposal?		X	Mitigation measures: maintain existing proper drainage system and waste water treatment system within proposed project area
Land use conflicts?		X	The land is cleared for the proposed project under administration of Bago Region Government and with acknowledgement from Bago Region Parliament
Social conflicts between project workers from other areas and community workers?		X	No impact will take place
Traffic disturbances due to project vehicle movement for operation activities?	X		The Project involves vehicle movement for raw material receiving and final product transporting activity. Project Vehicles will be managed through Journey Management Plan and follow BTDC instruction.
Temporary silt runoff due to any digging activity?		X	Not envisaged but will be mitigated through better management practices if some such situation emerges
Noise and dust from operation activities?	X		Noise from operation activities may generate, the noise can be minimized by working only at day time while background noise from other activities is high.
Emission of potentially toxic volatile organics from site?		X	Not envisaged Mitigation measures
Surface and ground water pollution from operation?		X	Not envisaged Mitigation measures
Contamination of air quality from standby diesel generator operating?		X	Not envisaged

B. Project Operation Phase			
Environmental Impact Screening Questions	Yes	No	Remarks
			Mitigation measures: low Sulphur content fuel to use and maintain high efficiency of generator performance quality by routing maintenance

C. Project Abandonment Phase			
Environmental Impact Screening Questions	Yes	No	Remarks
1. Project Siting Is the project area			
Remain with as built buildings and facility developed?	X		Not envisaged. Mitigation measured Developer may handover (to somebody or to landowner) with reasonable value
Heavy with abandonment activities?		X	
2. Potential Environmental Impacts Will the Project cause...			
Impacts on the sustainability of associated with sanitation and solid waste disposal systems and provided their interactions with other urban services.		X	Not envisaged Mitigation measures
Deterioration of surrounding environmental conditions due to rapid urban population growth, commercial and industrial activity, and increased waste generation to the point that both manmade and natural systems are overloaded and the capacities to manage these systems are overwhelmed?		X	Not envisaged Mitigation measures
Nuisance to neighboring areas due to noise, etc.?		X	

C. Project Abandonment Phase			
Environmental Impact Screening Questions	Yes	No	Remarks
Termination or involuntary retirement of labor	X		Mitigation measures: to comply according to Myanmar Labor Laws
Public health hazards from odor, smoke from fire, and diseases transmitted by flies, insects, birds and rats?		X	Not envisaged Mitigation measures
Deterioration of water quality as a result of contamination of receiving waters?		X	
Contamination of ground and/or surface water by domestic water from disposal?		X	Mitigation measures: maintain existing proper drainage system and waste water treatment system within proposed project area
Social conflicts between workers from other areas and community workers?		X	No impact will take place
Traffic disturbances due to construction material transport and wastes?		X	The Project involves major construction activity. Project Vehicles will be managed through Journey Management Plan and follow BTDC instruction.
Temporary silt runoff due to construction?		X	Not envisaged but will be mitigated through better management practices if some such situation emerges
Noise and dust from installation activities?	X		Temporary noise from installation activities will generate, the noise can be minimized by working only at day time while background noise from other activities is high.
Emission of potentially toxic volatile organics from site?		X	
Surface and ground water pollution from operation?		X	The Design consideration will take care of surface and ground water pollution from operation
Contamination of air quality from standby diesel generator operating?		X	The Design consideration will take care of contamination of air quality from standby generator operating

Summary of Mitigation Actions Required for Proposed Project Activities with Significant Environmental Impacts (Low, Medium, High and Critical)

Based on the assessment of potential environmental impact presented in the Attachment 1, there is no activity identified having significant (HIGH and CRITICAL) adverse environmental impacts whilst one MEDIUM as of indirect environmental impact. They are either LOW or NEGLIGIBLE after taking into account specific engineering design features. However, in line with Myanmar Environmental Law & Regulation requirement and good industrial practices, a number of actions have been prescribed to ensure continual environmental management improvement.

The summary of those activities and their respective required actions and person responsible is presented in below Table.

There are no critical and high environmental impact categories identified for the proposed project. (Critical = 0; High = 0; Medium = 1; Low = 6; Negligible = 6)

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

Table 5.5.15.2: Summary of Environmental Impact Significance and Mitigation Action Required and Person Responsible

(A) Project Development on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
1	Movement of project cargo vehicle	M	Optimize transportation facility. Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users To follow BTDC instruction and notification on construction project vehicle	Project Director Transport Supervisor Vehicle Driver	Throughout the project Daily Every morning & before drive
2	Waste, Dust, & Noise from Land Clearing	L	All plants and grass inside project area to clear and send designated location under supervision and approval by BTDC Excavated ground soil to use inside project area for levelling the ground and only extra soil to send designated location using safe transportation system as per BTDC instruction To wash down the truck contaminated with muds using for waste transport prior to move in and out. To operate using sound proof type machine at only daytime when background noise is high	LTICL	Daily during land clearing period
3	Noise & Vibration from Piling	L	To use High technique (Hydraulic) Piling machine	Contractor	Throughout piling time
4	Waste, Dust, Noise, from Superstructure	L	To follow BTDC instruction and notification on construction waste Segregate and reuse to maximize usage as much as possible Dispose non-reusable waste to appropriate/approved recycling Center or dumping ground defined by BTDC	LTICL Assigned Contractor	Throughout project period

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(A) Project Development on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
			All waste generated from construction to collect, record, and dispose at BTDC designated location The truck using for waste transport to wash down all contaminated muds prior to move in and out. To operate using sound proof type machine at only daytime when background noise is high To use proper scaffolding and cover net for the high rise building which complying with BTDC instruction	Truck Driver Project Director Project Director	Daily Throughout the project
5	Noise from Power Generator / Gas Turbine / Air Compressor operation	L	To use sound proof type To plan Routine maintenance to minimize downtime To monitor and record ambient sound level regularly	Project Manager	Throughout the operation period
6	Domestic wastewater and operational produced water	L	Carry out necessary treatment system on domestic water and produced water from operational activities prior to dispose off Regular water quality monitoring program	Project Director	Throughout the project period
7	Fuel and Oil Spill at fuel and chemicals Storage area	L	To store at designated fuel and chemical storage area To construct storage area with secondary containment system and fencing Only identified fuel and chemicals with relevant MSDS/CSDS to be stored separately to avoid any oxidation / reaction Regular inspection and recording as of monthly basic	Project Director	Before Development Once a month during operation Before Development

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(A) Project Development on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
8	Social conflict between local people and project workforce	Negligible	Corporate social responsibility program Create opportunity for the local community to work at project Enhance in health care of local community with providing necessary medical assistance to local people Enhance education sector development for local community in providing with school buildings, equipment and tools, scholarship program for students, etc. Respect traditional custom each other and support to the local community, Providing necessary training to people Actively participating and sponsoring in local religious events and activities Always inform, get advice and agreement from local authority and local community leader prior to precede the project activities.	Project Director	Throughout the project period
9	Hazardous waste management	Negligible	Segregate waste type Monitor the quantity of each type of hazardous waste using waste consignment note Return recyclable waste e.g., waste paint, solvent, chemicals, drilling fluids, etc. to supplier Recycle waste used oil Dispose non-recyclable waste to BTDC Audit on the waste management at project worksite and the supplier's / BTDC's waste disposal site	Transport Supervisor & Driver HSE Representative	Throughout the project period

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(A) Project Development on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
10	Fuel and chemicals spill during transfer	Negligible	To obtain fuel and chemicals transfer procedure from contractor To verify personnel has been given training to transfer fuel and chemicals safely To ensure volume of fuel and chemicals transfer is not more than maximum allowable of the storage capacity To ensure supply vehicle has in place an oil spill response plan and oil spill response capability	Project Director	Before Development operation Before Development operation During the fuel and chemicals transfer
11	Air Pollution from Operation of standby diesel generators	Negligible	Use of low Sulphur diesel that are readily available in the market Regular air quality monitoring program	Project Director	Prior to commence project activity
12	Non-hazardous solid waste management (e.g., earth, plastics, etc.)	Negligible	To follow BTDC instruction and notification on construction waste Segregate and reuse to maximize usage as much as possible Dispose non-reusable waste to appropriate/approved recycling Center or dumping ground defined by BTDC Monitor the quantity of each type of non-hazardous waste using waste register	Transport Supervisor & Driver	Throughout the project period
13	Kitchen and Sanitary Waste	Negligible	To develop Waste management procedure Food waste to be optimized by feeding farm animals as part of wise waste management Sewage will be discharged using septic tank Routine inspection and monitoring of discharging area and feeding practice	Project Director	Before operation Throughout the project period

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(A) Project Development on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
Total Impact Significance during Development Phase = Critical 0, High 0, Medium 1, Low 6, Negligible 6					

(B) Project Operation on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
1	Movement of project cargo vehicle	M	Optimize transportation facility. Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users To follow BTDC instruction and notification on construction project vehicle	Project Director Transport Supervisor Vehicle Driver	Throughout the project Daily Every morning & before drive
2	Waste, Dust, & Noise from operation activity	L	To follow BTDC instruction and notification on construction waste Segregate and reuse to maximize usage as much as possible Dispose non-reusable waste to appropriate/approved recycling Center or dumping ground defined by BTDC All waste generated from construction to collect, record, and dispose at BTDC designated location The truck using for waste transport to wash down all contaminated muds prior to move in and out. To operate using sound proof type machine at only daytime when background noise is high	LTICL Assigned Contractor Truck Driver Project Director	Throughout project period Daily

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(B) Project Operation on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
			To use proper scaffolding and cover net for the high rise building which complying with BTDC instruction	Project Director	Throughout the project
3	Noise from Power Generator / Air Compressor operation	L	To use sound proof type To plan Routine maintenance to minimize downtime To monitor and record ambient sound level regularly	Project Manager	Throughout the project period
4	Domestic wastewater and operational produced water	L	Carry out necessary treatment system on domestic water and produced water from operational activities prior to dispose off Regular water quality monitoring program	Project Director	Throughout the project period
5	Fuel and Oil Spill at fuel and chemicals Storage area	L	To store at designated fuel and chemical storage area To construct storage area with secondary containment system and fencing Only identified fuel and chemicals with relevant MSDS/CSDS to be stored separately to avoid any oxidation / reaction Regular inspection and recording as of monthly basic	Project Director	Throughout the project period
6	Fuel and chemicals spill during transfer	Negligible	To obtain fuel and chemicals transfer procedure from contractor To verify personnel has been given training to transfer fuel and chemicals safely To ensure volume of fuel and chemicals transfer is not more than maximum allowable of the storage capacity To ensure supply vehicle has in place an oil spill response plan and oil spill response capability	Project Director	Throughout the project period

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(B) Project Operation on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
7	Air Pollution from Operation of standby diesel generators	Negligible	Use of low Sulphur diesel that are readily available in the market Regular air quality monitoring program	Project Director	Throughout the project period
8	Hazardous waste management	Negligible	Segregate waste type Monitor the quantity of each type of hazardous waste using waste consignment note Return recyclable waste e.g., waste paint, solvent, chemicals, drilling fluids, etc. to supplier Recycle waste used oil Dispose non-recyclable waste to BTDC Audit on the waste management at project worksite and the supplier's / BTDC's waste disposal site	Transport Supervisor & Driver HSE Representative	Throughout the project period
9	Non-hazardous solid waste management (e.g., earth, plastics, etc.)	Negligible	To follow BTDC instruction and notification on construction waste Segregate and reuse to maximize usage as much as possible Dispose non-reusable waste to appropriate/approved recycling Center or dumping ground defined by BTDC Monitor the quantity of each type of non-hazardous waste using waste register	Transport Supervisor & Driver	Throughout the project period
10	Kitchen and Sanitary Waste	Negligible	To perform Waste management procedure Food waste to be optimized by feeding farm animals as part of wise waste management Sewage will be discharged using septic tank	Project Director	Throughout the project period

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(B) Project Operation on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
			Routine inspection and monitoring of discharging area and feeding practice		
11	Social conflict between local people and project workforce	Negligible	Corporate social responsibility program Create opportunity for the local community to work at project Enhance in health care of local community with providing necessary medical assistance to local people Enhance education sector development for local community in providing with school buildings, equipment and tools, scholarship program for students, etc. Respect traditional custom each other and support to the local community, Providing necessary training to people Actively participating and sponsoring in local religious events and activities Always inform, get advice and agreement from local authority and local community leader prior to precede the project activities.	Project Director	Throughout the project period
Total Impact Significance during Operation Phase = Critical 0, High 0, Medium 1, Low 6, Negligible 6					

(C) Project Abandonment on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
1	Movement of project cargo vehicle	M	Optimize transportation facility.	Project Director	Throughout the project

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(C) Project Abandonment on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
			Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users To follow BTDC instruction and notification on construction project vehicle	Transport Supervisor Vehicle Driver	Daily Every morning & before drive
2	Waste, Dust, & Noise from deinstallation	L	All plants and grass inside project area to clear and send designated location under supervision and approval by BTDC Excavated ground soil to use inside project area for levelling the ground and only extra soil to send designated location using safe transportation system as per BTDC instruction To wash down the truck contaminated with muds using for waste transport prior to move in and out. To operate using sound proof type machine at only daytime when background noise is high	LTICL	Daily during land clearing period
3	Domestic wastewater and operational produced water	L	Carry out necessary treatment system on domestic water and produced water from operational activities prior to dispose off Regular water quality monitoring program	Project Director	Throughout the project period
4	Fuel and Oil Spill at fuel and chemicals Storage area	L	To store at designated fuel and chemical storage area To construct storage area with secondary containment system and fencing Only identified fuel and chemicals with relevant MSDS/CSDS to be stored separately to avoid any oxidation / reaction Regular inspection and recording as of monthly basic	Project Director	Once a month during operation

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(C) Project Abandonment on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
5	Hazardous waste management	Negligible	Segregate waste type Monitor the quantity of each type of hazardous waste using waste consignment note Return recyclable waste e.g., waste paint, solvent, chemicals, drilling fluids, etc. to supplier Recycle waste used oil Dispose non-recyclable waste to BTDC Audit on the waste management at project worksite and the supplier's / BTDC's waste disposal site	Transport Supervisor & Driver HSE Representative	Throughout the project period
6	Air Pollution from Operation of standby diesel generators	Negligible	Use of low Sulphur diesel that are readily available in the market Regular air quality monitoring program	Project Director	Prior to project activity
7	Non-hazardous solid waste management (e.g., earth, plastics, etc.)	Negligible	To follow BTDC instruction and notification on construction waste Segregate and reuse to maximize usage as much as possible Dispose non-reusable waste to appropriate/approved recycling Center or dumping ground defined by BTDC Monitor the quantity of each type of non-hazardous waste using waste register	Transport Supervisor & Driver	Throughout the project period
8	Kitchen and Sanitary Waste	Negligible	To develop Waste management procedure Food waste to be optimized by feeding farm animals as part of wise waste management Sewage will be discharged using septic tank Routine inspection and monitoring of discharging area and feeding practice	Project Director	Before operation

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(C) Project Abandonment on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis					
No.	Category/Aspect	Significance	Actions Required to mitigate impact	Person Responsible	Timing
					Throughout the project period
9	Termination of job	Negligible	To compensate the staff according to Myanmar Labor Law	MD/Director	Throughout the project period
10	Social conflict between local people and project workforce	Negligible	Fade out Corporate social responsibility program activity To support sustainable CSR program before close out	Project Director	Throughout the project period
Total Impact Significance during Abandonment Phase = Critical 0, High 0, Medium 1, Low 6, Negligible 6					

Attachment 1: Environmental Impact Assessment and Proposed Mitigation Measures for the Proposed Project

(A) Project Development Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)											
Sr. No.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
1	Land Clearing	Waste, Dust, & Noise	Potential soil and ground water contamination	3	0.35	2	2.1	LOW	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Localized within the project station Duration: Short term Action: Directly from the project	1 2 3 4	All plants and grass inside project area to clear and send designated location under supervision and approval by BTDC Excavated ground soil to use inside project area for levelling the ground and only extra soil to send designated location using safe transportation system as per BTDC instruction To wash down the truck contaminated with muds using for waste transport prior to move in and out. To operate using sound proof type machine at only daytime when background noise is high
2	Movement of project vehicle	Physical presence of cargo vehicle	Interference with other road users	3	1.0	2	6.0	MEDIUM	Significance after mitigation measures - LOW		
									Extent: Regional. Number of vehicles for LTICL project with 1 - 2 cargo vehicles is	1 2 3	Optimize transportation facility. Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users To follow BTDC instruction and notification on construction project vehicle

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(A) Project Development Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

Sr. No.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									estimated daily usage Duration: Driving time in the region will be optimized Action: Directly from the project	4	
3	Project building and facility installation activities	Non-hazardous waste disposal on land (e.g. wood, scrap metals, plastics, etc.)	Potential soil and ground water contamination	5	0.1	1	0.5	NEGLIGIBLE	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Volume of non-recyclable general wastes will be low, and will be disposed at an appropriate and approved dumping ground will be low. Duration: project period	1 2 3 4	Site waste management procedure will be in place covering waste segregation, disposing by using burning method or landfill method due to nature of waste. Reuse and recycle waste materials such as wooden, metal, paper and plastics as much as possible. Dispose non-reusable and non-recyclable wastes to an appropriate dumping ground approved by local authority if applicable. Routine inspection and monitoring as part of WMP

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(A) Project Development Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

Sr. No.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									Action: Directly from the project		
6	Project activities (Development phase and operation phase)	Hazardous waste if used necessary chemicals (e.g. acids, paints, pesticide, etc.)	Environment & public health	5	0.1	1	0.5	NEGLIGIBLE	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Volume of hazardous wastes will be low, and will be disposed at an appropriate and approved dumping ground will be low. Duration: project period Action: Directly from the project	1 2	Reuse and recycle if possible (e.g. used oil and batteries). Disposal of hazardous wastes (waste paint, used oil, and solvent) on approved facilities.
7	Kitchen and Sanitary Waste	Generate bacterial that can spark on health	Soil and ground water contamination	3	0.1	1	0.3	NEGLIGIBLE	Significance after mitigation measures - LOW		
									Extent: Localized within the project station	1 2	Sewage will be discharge in septic tank. Food waste can be managed by feeding to farm animal instead of disposing

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(A) Project Development Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

Sr. No.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
		disease (such as diarrhea)							Duration: project period Action: Directly from the project		
8	Standby Generator / Air Compressor operation	Noise	Ambient noise	3	0.35	2	2.1	LOW	Significance after mitigation measures - LOW		
									Extent: Site standby generator room and its surrounding area Duration: project period Action: Directly from the project	1 2 3	Soundproof generator to be used. Generator running time will be under control together with to minimize fuel consumption. Ambient sound monitoring program
9	Standby Generator operation	Release of combustion gases containing SOx, NOx, CO2,	Air pollution with global warming potential.	5	0.1	1	0.5	NEGLIGIBLE	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Localized within 2 km from the source of emission. No	1 2	Use of low Sulphur diesel. Air quality monitoring program

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(A) Project Development Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

Sr. No.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
		particulate matter							cumulative effects expected as emissions are distant from other continuous sources of emissions. Duration: Emissions are of short duration and will be rapidly dispersed and diluted. Action: Directly from the project		
10	Storing of fuel and chemicals at Storage area	Oil / fuel / chemical spill	Potential soil and ground water contamination.	3	0.35	2	2.1	LOW	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Volume of wastes will be low, and will be disposed at	1 2	To store at designated area which including of secondary containment system and waste collection point.

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(A) Project Development Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

Sr. No.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									an approved disposal site. Duration: project period Action: Directly from the project	3	To establish an adequate spill response capability. Operator to ensure all MSDS and spill kit is standby at storage area. Routine inspection, inventory and reporting need to be done to ensure no leak of loss of stored items.
11	Domestic wastewater and operational produced water	Discharging of domestic wastewater and operational produced water to ground	Degrading of groundwater quality by discharging of untreated waste water	3	0.35	2	2.1	LOW	Significance after mitigation measures - LOW		
									Extent: Localized and the amount of produced wastewater is small. Duration: project period. Action: Directly from the project	1 2	Carry out necessary filtering and/or treatment system on domestic water and produced water from operational activities prior to dispose off Regular water quality monitoring program
12	Operating LTICL project	Sharing of public area with existing local people	Possible Social conflict between local people and project workforce	2	0.35	1	0.7	NEGLECTIBLE	Significance after mitigation measures - NEGLECTIBLE		
									Extent: Regional. within and	1 2	Conduct public hearing to get agreement from local authority as well as local people on public land usage between project and local community

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(A) Project Development Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

Sr. No.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									around project area Duration: very short, conflict can be negotiable by working together Action: Directly from the project	3 4	Corporate social responsibility program to create opportunity for local people to work at project Enhance in health and education sector development for local community Develop sustainable socio eco program
	F=Frequency of Impact Occurrence										
	L= Likelihood of the Impact Occurring										
	M= Magnitude of the size of the impact in relation to set of standards										
	S= Significant - Overall importance of the impact										

(B) Project Operation Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)											
Sr.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
1	Project Machinery Operation	Waste, Dust, & Noise	Potential soil and ground water contamination	3	0.35	2	2.1	LOW	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Localized within the project station Duration: Long term Action: Directly from the project	1 2 3 4	All machinery facility inside factory area to use sound proof system and keep clean at all times. Keep clean at worksite by operator and collect waste daily basis and send designated location under supervision and approval by BTDC Ensure noise protective barrier system at factory if there is any noise source produce more than permissible level of NEQEG To operate using sound proof type machine at only daytime when background noise is high
2	Movement of project vehicle	Physical presence of cargo vehicle	Interference with other road users	2	1.0	2	4.0	MEDIUM	Significance after mitigation measures - LOW		
									Extent: Regional. Number of vehicles for LTICL project with 1 – 2 cargo vehicles is estimated weekly usage	1 2 3 4	Optimize transportation facility. Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users To follow Road Transport Administration Department (RTAD) and BTDC instruction and notification on project vehicle

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(B) Project Operation Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

Sr.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									Duration: Long term with less frequency Action: Directly from the project		
3	Project activities (Development phase and operation phase)	Non-hazardous waste disposal on land (e.g. wood, scrap metals, plastics, etc.)	Potential soil and ground water contamination	5	0.1	1	0.5	NEGLIGIBLE	Significance after mitigation measures - NEGLIGIBLE Extent: Volume of non-recyclable general wastes will be low, and will be disposed at an appropriate and approved dumping ground will be low. Duration: project period Action: Directly from the project	1 Site waste management procedure will be in place covering waste segregation, disposing by using burning method or landfill method due to nature of waste. 2 Reuse and recycle waste materials such as wooden, metal, paper and plastics as much as possible. 3 Dispose non-reusable and non-recyclable wastes to an appropriate dumping ground approved by local authority if applicable. 4 Routine inspection and monitoring as part of WMP	

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(B) Project Operation Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

Sr.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
6	Project activities	Hazardous waste if used necessary chemicals (e.g. acids, paints, pesticide, etc.)	Environment & public health	5	0.1	1	0.5	NEGLIGIBLE	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Volume of hazardous wastes will be low, and will be disposed at an appropriate and approved dumping ground will be low. Duration: project period Action: Directly from the project	1 2	Reuse and recycle if possible (e.g. used oil and batteries). Disposal of hazardous wastes (waste paint, used oil, and solvent) on approved facilities.
7	Kitchen and Sanitary Waste	Generate bacterial that can spark on health disease (such as diarrhea)	Soil and ground water contamination	3	0.1	1	0.3	NEGLIGIBLE	LOW		
									Extent: Localized within the project station Duration: project period	1 2	Sewage will be discharge in septic tank. Food waste can be managed by feeding to farm animal instead of disposing

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(B) Project Operation Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

Sr.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									Action: Directly from the project		
8	Standby Generator / Air Compress or operation	Noise	Ambient noise	3	0.35	2	2.1	LOW	Significance after mitigation measures - LOW		
									Extent: Site standby generator room and its surrounding area Duration: project period Action: Directly from the project	1 2 3	Soundproof generator to be used. Generator running time will be under control together with to minimize fuel consumption. Ambient sound monitoring program
9	Standby Generator operation	Release of combustion gases containing SOx, NOx, CO2, particulate matter	Air pollution with global warming potential.	5	0.1	1	0.5	NEGLIGIBLE	NEGLIGIBLE		
									Extent: Localized within 2 km from the source of emission. No cumulative effects	1 2	Use of low Sulphur diesel. Air quality monitoring program

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(B) Project Operation Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

Sr.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									expected as emissions are distant from other continuous sources of emissions. Duration: Emissions are of short duration and will be rapidly dispersed and diluted. Action: Directly from the project		
10	Storing of fuel and chemicals at Storage area	Oil / fuel / chemical spill	Potential soil and ground water contamination.	3	0.35	2	2.1	LOW	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Volume of wastes will be low, and will be disposed at	1 2	To store at designated area which including of secondary containment system and waste collection point.

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(B) Project Operation Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

Sr.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									an approved disposal site. Duration: project period Action: Directly from the project	3	To establish an adequate spill response capability. Operator to ensure all MSDS and spill kit is standby at storage area. Routine inspection, inventory and reporting need to be done to ensure no leak of loss of stored items.
11	Domestic wastewater and operational produced water	Discharging of domestic wastewater and operational produced water to ground	Degrading of groundwater quality by discharging of untreated waste water	3	0.35	2	2.1	LOW	LOW		
									Extent: Localized and the amount of produced wastewater is small. Duration: project period. Action: Directly from the project	1 2	Carry out necessary filtering and/or treatment system on domestic water and produced water from operational activities prior to dispose off Regular water quality monitoring program
12	Operating LTICL project	Sharing of public area with existing local people	Possible Social conflict between local people and	2	0.35	1	0.7	NEGLIGIBLE	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Regional. within and	1	Conduct public hearing to get agreement from local authority as well as local people on public land usage between project and local community

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(B) Project Operation Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

Sr.	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
			project workforce						around project area Duration: very short, conflict can be negotiable by working together Action: Directly from the project	2 3 4	Corporate social responsibility program to create opportunity for local people to work at project Enhance in health and education sector development for local community Develop sustainable socio eco program
	F=Frequency of Impact Occurrence										
	L= Likelihood of the Impact Occurring										
	M= Magnitude of the size of the impact in relation to set of standards										
	S= Significant - Overall importance of the impact										

(C) Project Abandonment Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis											
#	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
1	Decommiss ioning	Waste, Dust, & Noise	Potential soil and ground water contamination and noise to neighbors	3	0.35	2	2.1	LOW	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Localized within the project station	1	All general waste inside project area to collect and send designated location under supervision and approval by BTDC
									Duration: Short term	2	To wash down the truck contaminated with muds using for waste transport prior to move in and out.
									Action: Directly from the project	3	To operate using sound proof type machine at only daytime when background noise is high
2	Movement of project vehicle	Physical presence of cargo vehicle	Interference with other road users	3	1.0	2	6.0	MEDIUM	Significance after mitigation measures - LOW		
									Extent: Regional. Number of vehicles for LTICL project with 1 - 2 cargo vehicles is estimated daily usage	1	Optimize transportation facility.
									Duration: Short terms	2	Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing
										3	Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users
									4	To follow RTAD and BTDC instruction and notification on construction project vehicle	

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(C) Project Abandonment Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

#	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									Action: Directly from the project		
3	Project activities (Development phase and operation phase)	Non-hazardous waste disposal on land (e.g. wood, scrap metals, plastics, etc.)	Potential soil and ground water contamination	5	0.1	1	0.5	NEGLIGIBLE	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Local Volume of non-recyclable general wastes will be low, and will be disposed at an appropriate and approved dumping ground will be low. Duration: Short terms Action: Directly from the project	1 2 3 4	Site waste management procedure will be in place covering waste segregation, disposing by using burning method or landfill method due to nature of waste. Reuse and recycle waste materials such as wooden, metal, paper and plastics as much as possible. Dispose non-reusable and non-recyclable wastes to an appropriate dumping ground approved by local authority if applicable. Routine inspection and monitoring as part of WMP
6				5	0.1	1	0.5	NEGLIGIBLE	NEGLIGIBLE		

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(C) Project Abandonment Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

#	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
	Project activities	Hazardous waste if used necessary chemicals (e.g. acids, paints, pesticide, etc.)	Environment & public health						Extent: Local Volume of hazardous wastes will be low, and will be disposed at an appropriate and approved dumping ground will be low. Duration: Short terms Action: Directly from the project	1	Reuse and recycle if possible (e.g. used oil and batteries).
										2	Disposal of hazardous wastes (waste paint, used oil, and solvent) on approved facilities.
7	Kitchen and Sanitary Waste	Generate bacterial that can spark on health disease (such as diarrhea)	Soil and ground water contamination	3	0.1	1	0.3	NEGLIGIBLE	Significance after mitigation measures - LOW		
									Extent: Localized within the project station Duration: Short terms	1	Sewage will be discharge in septic tank.
										2	Food waste can be managed by feeding to farm animal instead of disposing

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(C) Project Abandonment Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

#	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									Action: Directly from the project		
8	Standby Generator / Air Compressor operation	Noise	Ambient noise	3	0.35	2	2.1	LOW	Significance after mitigation measures - LOW		
									Extent: Site standby generator room and its surrounding area Duration: project period Action: Directly from the project	1 2 3	Soundproof generator to be used. Generator running time will be under control together with to minimize fuel consumption. Ambient sound monitoring program
9	Standby Generator operation	Release of combustion gases containing SOx, NOx, CO2, particulate matter	Air pollution with global warming potential.	5	0.1	1	0.5	NEGLIGIBLE	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Localized within 2 km from the source of emission. No cumulative effects	1 2	Use of low Sulphur diesel. Air quality monitoring program

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(C) Project Abandonment Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

#	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									expected as emissions are distant from other continuous sources of emissions. Duration: Emissions are of short duration and will be rapidly dispersed and diluted. Action: Directly from the project		
10	Storing of fuel and chemicals at Storage area	Oil / fuel / chemical spill	Potential soil and ground water contamination.	3	0.35	2	2.1	LOW	Significance after mitigation measures - NEGLIGIBLE		
									Extent: Volume of wastes will be low, and will be disposed at an approved disposal site.	1 To store at designated area which including of secondary containment system and waste collection point. 2 To establish an adequate spill response capability. Operator to ensure all MSDS and spill kit is standby at storage area.	

EMP Report for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

(C) Project Abandonment Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis)

#	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									Duration: project period Action: Directly from the project	3	Routine inspection, inventory and reporting need to be done to ensure no leak or loss of stored items.
11	Domestic wastewater and operational produced water	Discharging of domestic wastewater and operational produced water to ground	Degradation of groundwater quality by discharging of untreated waste water	3	0.35	2	2.1	LOW	Significance after mitigation measures - LOW		
									Extent: Localized and the amount of produced wastewater is small. Duration: project period. Action: Directly from the project	1 2	Carry out necessary filtering and/or treatment system on domestic water and produced water from operational activities prior to disposal. Regular water quality monitoring program
12	Operating LTICL project	Sharing of public area with existing local people	Possible Social conflict between local people and project workforce	2	0.35	1	0.7	NEGLECTIBLE	Significance after mitigation measures - NEGLECTIBLE		
									Extent: Regional within and around project area	1 2	Conduct public hearing to get agreement from local authority as well as local people on land usage between project and local community. Corporate social responsibility program to create opportunity for local people to work at project

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(C) Project Abandonment Phase on Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis

#	ACTIVITY	ASPECT	IMPACT	F	L	M	S	SIGNIFICANCE before Mitigation Measures	OVERALL ASSESSMENT	PROPOSED MITIGATION MEASURES	
									Duration: very short, conflict can be negotiable by working together Action: Directly from the project	3	Enhance in health and education sector development for local community
										4	Develop sustainable socio eco program
	F=Frequency of Impact Occurrence										
	L= Likelihood of the Impact Occurring										
	M= Magnitude of the size of the impact in relation to set of standards										
	S= Significant - Overall importance of the impact										

6. COMMULATIVE IMPACT ASSESSMENT

The location of proposed project preferred land area is in settled residential area and not relating with Bago Industrial Zone, and no other industries or factories operating within study area. There is settled town plan already in the study area and no changes to be made according to Bago Township General Administration Department. Hence it is considered that further study is not necessary at this time for characterization and assessment of any residual impacts and risks.

7. ENVIRONMENTAL MANAGEMENT PLAN

7.1 Purpose and Scope

Purpose to fulfill the requirement of project proponent to submit EMP of proposed project in getting ECCD for the proposed project by preparation EMP of the proposed project.

Aim to prepare suitable environmental management plan to minimize impacts as low as reasonably practicable level (ALARP) by means of prevention, mitigation, and monitoring measures based on the identified impacts (of both positive and negative) affected to the environment, human use values, quality of life and health, etc., which may come out from the project activities throughout proposed project operation.

Scope to conduct environmental assessment study working process includes project proponent, required laws, policy, legal and institutional framework, project proposal and alternatives, surrounding environment background information and existing environmental quality data, Impact & Risk Assessment & Mitigation Measures, Cumulative Impact assessment, Environmental Management Plan, Public Consultation and information Disclosure, etc., for the preparation of EMP of proposed project.

Scope to prepare EMP for the proposed project preparing process includes Identifying all planned activities and potential unplanned events, establishing an environmental baseline of the project area, Identifying and assessing potentially significant impacts based on existing environmental description, Identifying and recommending mitigation measures to minimize potential impacts, recommending a monitoring plan that can track changes in the environment issues and to ensure compliance with Myanmar legislation, etc., for the submitting of EMP of proposed project.

7.2 Project Description by Project Phase

Project description by project phase has been presented in section 4.

7.3 Project's Environmental, Socio-economic and, where relevant, Health Policies and Commitments, legal requirements and institutional arrangements

Project's environmental, socio-economic and, where relevant, health policies and commitment, legal requirements and institutional arrangements are present in section 3 & here.

7.3.1 Project Component's Environmental and Social Commitment

7.3.1.1 Environmental and Social Commitments

LTICL will commit environmental and social as mentioned in the Environmental and Social Policy. There will be separate budget allotted for the implementation in environmental management plan of LTICL throughout project period. Initial Environmental budget is estimated 3000 USD/year and budget allotment will be reviewed yearly basis to suit with requirements.

In addition, LTICL has undertaken to spend 2% of annual net profit in CSR program. The proposed project area is placing within Industrial Zone, Bago Region and can be considered as partially developed based on current living standard status. LTICL plans to cooperate with local community as part of CSR programs to be supported by LTICL is as below:

- Providing in Education Sector by funding in school library, stationary, exercise book, etc., for the students from local community
- Providing in health care service sector by funding in clinic, doctor & medicine for the patients from local community

7.3.1.2 Environmental Management Plan

LTICL undertake to commit Environmental Management Plan for the Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Project Operation which complies with Myanmar Laws & Regulations, and Procedures & Standing Instructions.

7.3.1.3 Guidelines

LTICL undertake to commit Environmental Management Plan for the Proposed Project Operation complies with National Environmental Quality Emission Guideline out of enacted Myanmar Laws & Regulations, and Procedures & Standing Instructions, MONREC (former MOECAP). There will have other procedures and guidelines in terms of interest in relevant area such as guidelines in consumer electronic processing & production, social and cultural, labor, regional, industrial, etc.

The LTICL Fire & Emergency Response Plan has been made available which compliance with Fire Fight Department require the reporting of fire.

7.3.1.4 Institutional Arrangements

The management level for the environmental management plan will be responsible for overall environmental management plan of the proposed project for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis. It will be headed by a Managing Director and consist of at least Three person-team of marketing, operation, engineering, administrative & financial, and social/environmental.

The implementation level for the environmental management plan will be responsible for overall environmental management plan of the proposed project for Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis. It will be headed by a Project Factory Manager and consist of at least Four person-team of marketing, operation, engineering, administrative & financial, and social/environmental.

Organization Chart for EMP Management Team and EMP Implementation Team are present below: -

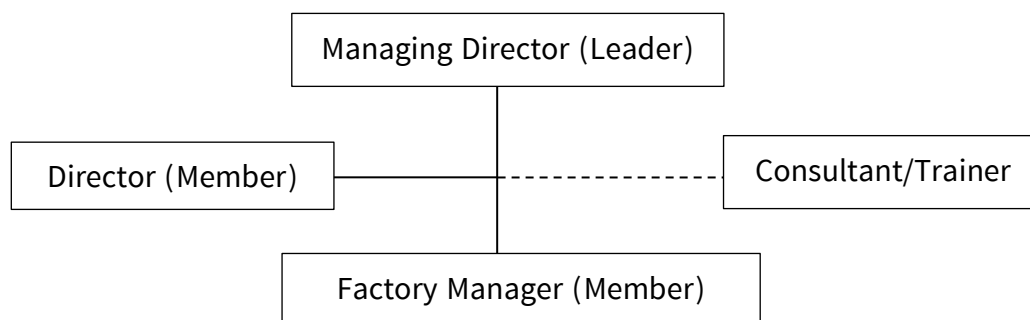


Figure 7.3.1.4.1: EMP Management Team Organization Chart

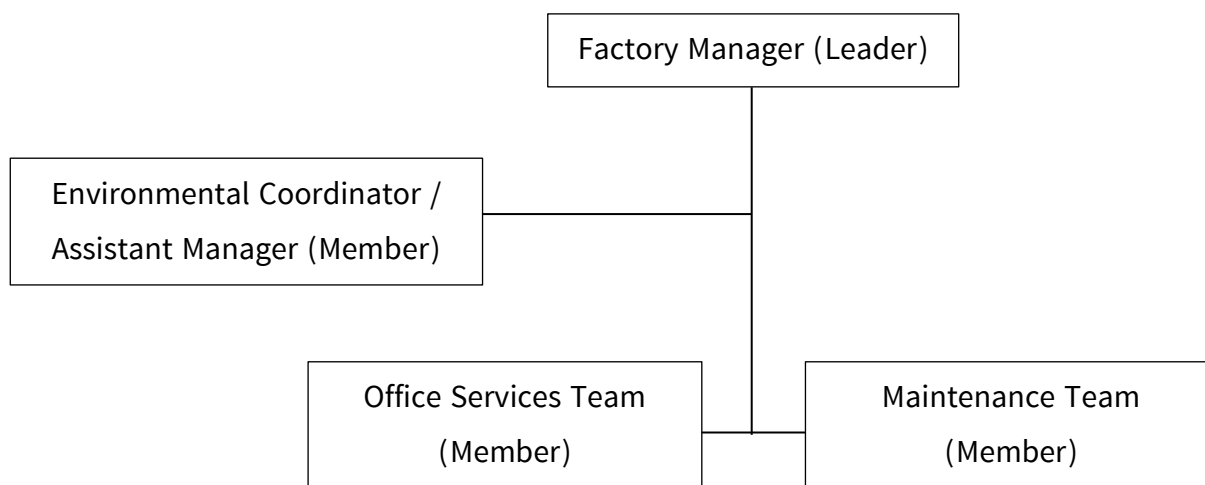


Figure 7.3.1.4.2: EMP Implementation Team Organization Chart

Organizational Roles and responsibilities according based on the position are present below: -

EMP Management Team Roles and Responsibility

Position	Roles	Responsibility
Managing Director	Leader	Lead to ensure performance of EMP Implementation is in order according to Myanmar Laws & Regulations
Consultant/Trainer	Advisor	Consult / train to implement EMP of the proposed project
Director	Member	Follow and Support MD's leadership to achieve set goals on implementation of EMP for proposed project
Factory Manager	Member	Follow and Support MD's leadership by strictly implementation of EMP to achieve set goals in proposed project
Environmental Coordinator	Coordinator	Coordinate between all levels in EMP Management & Implementation Teams

*Member list may subject to change according to LTICL

EMP Implementation Team Roles and Responsibility

Position	Roles	Responsibility
Factory Manager	Leader	Lead to perform strictly implementation of EMP to achieve set goals in proposed project
Environmental Coordinator/ Factory Assistant Manager	Member	Coordinate between all levels in EMP Implementation related issues. Assist to perform strictly implementation of EMP to achieve set goals in proposed project
Office Services Team	Member	To take care EMP related office services
Maintenance Team	Member	To take care EMP related maintenance activity
LTICL Staff	Member	Cooperate EMP Implementation

*Member list may subject to change according to LTICL

Proposed Project EMP will be included in contract terms and conditions to ensure Awarded Contractor following Project EMP accordingly and LTICL will be

monitored during developing phase. Contractor HSE Representative will liaise with LTICL Factory Development Site Manager to achieve set EMP goals.

There will be institutional framework set with categorized level to educate the person involved for the implementation of Project EMP, as described below:

Category 1: Customer / Visitor – Environmental Awareness

Category 2: - General Environmental Awareness

Category 3: Specific Environmental Awareness

Category 4: Specific Environmental Training

7.3.1.5 Project's Environmental Standards for Institutional Framework

Category 1: Customer/Visitor Environmental Awareness– general introduction to environmental issues, as part of site induction, for visitors who will be visiting at LTICL facilities. This training is to be given via LTICL induction pamphlet or poster display signboards prepared by LTICL Team, as part of the general LTICL induction.

ENVIRONMENT

The environment of the LTICL is sensitive in term of its location. It is encouraging disposing waste into designated waste bin at site as it will prevent contamination to factory as well as its environment (i.e., soil/floor, waterways, etc.) and it may able to control possible fire from waste. Should you witness others improper waste disposing or see any fires, please report this to the Environmental Coordinator. Chewing beetle nuts is not allowed in the Factory facility as it may lead undesirable contamination to others as well as environment. Smoking inside LTICL Perimeter is limited as it allowed at the designated smoking area only.

ENVIRONMENTAL INCIDENTS

Please report all incidents, including spills or leaks of fuels, oils or other chemicals, to the Environmental coordinator.

Category 2: General Environmental Awareness: 1 hr. session for LTICL management and technical personnel who are not directly involved in operations. The awareness program will cover general environmental issues; typical impacts associated with daily operations, and describe the importance of the

implementation in EMP of the project activity underpinning good environmental performance. Training will be given by the Trainer.

Category 3: Specific Environmental Awareness: 2 hr session for site operational personnel. The course will cover descriptions of specific environmental impacts which can occur as a result of operations. Training will also describe the importance of the EMP in underpinning good environmental performance. Training will be given by the Training Officer.

Category 4: Specific Environmental Training – task based: This will involve a day session day one-on-one for Environmental Coordinator, office services personnel, and maintenance personnel with responsibility for monitoring and reporting. This will be conducted by the Training Officer.

Note: Safety and Emergency training is not included here, but an environmental aspect will be incorporated into these courses.

LTICL currently has developing a register indicating who has attended which courses, and which procedures each person is familiar with, as a way of tracking development through the organization. Environmental training could be included on this register.

Below Table Summarized training needs for the proposed project EMP Implementation

Table: Training Matrix

Personnel	Training Category required (see above) and specific focus of training
LTICL management and technical personnel	Category 2
All LTICL staff personnel	Category 3
Environmental Coordinator and Office Services personnel	Category 4 Energy & natural resources consumption Noise Observation Water quality monitoring Air Quality Monitoring

Personnel	Training Category required (see above) and specific focus of training
	Factory Operation & Maintenance works Monitoring Recording fire and Natural Disaster
Maintenance personnel	Category 4 Factory Maintenance & Office House Keeping Waste Management
Visitors/Customer	Category 1

7.4 Summary of Impacts and Mitigation Measures

Summary of potential Impacts which may generate from the proposed project operation activities throughout the project period and Mitigation Measures are describe in section 5.

7.4.1 Development

7.4.1.1 Location and Design

Proposed project LTICL is locating in Townland granted area. The proposed project site within existing land is categorized as Townland Area; the Relevant Authority, BTDC has officially granted to the Landlord. Land rental (including existing infrastructure, ground water source (1 no.), etc.,) agreement has been made for initial 20 years by project proponent, LTICL, and landlord (Annexure – 4). The land is cleared by the landlord and therefore there is no acquisition issue, no resettlement issue, and no relocation issue regarding the location. There is no environmental impact from project master layout design as proposed project may build steel structure buildings using existing resources under permission and supervision of BTDC and necessary mitigation measure required for the proposed project has been managed by LTICL. Facility installation for consumer electronic manufacturing has been followed after construction. Any sensitive environmental receptors have been protected by facility detailed design approved by the authority; BTDC, and proper engineering of LTICL before commencing physically. Proper operation and maintenance of the site will be critical to protecting the environment; therefore, training for staff is built into the project.

7.4.1.2 Pre-Construction

There is no resettlement issues anticipated for the location of proposed project area; LTICL selected land and building, Bago Township, Bago Region. The project of Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis is proposed on available private own industrial land preferred as private own industrial Land area; Block - TheeThant (1), Plot No. Myay Taing (24), Okthar 8th Ward, Bago Township, Bago Region. Hence, permanent land acquisition is not envisaged. There is no major environmental impact from pre-construction stage and proactive mitigation measures will be included for the proposed project. The construction of main building, and installation of facility has been conducted by qualified contractor and operation will be performed by competent staff and well-trained workers, so it is unlikely that there will be major environmental impacts.

7.4.1.3 Construction & Installation

There will be minor physical changes in pre-operational phase at the site as a result from construction activities by the awarded contractor (such as building construction, facility installation and commissioning works, etc.), and this relatively some amount of quantity of construction waste will be produced with minor physical impacts on environment (such as air quality (dust/particulate matters, noise), soil quality, etc.) at the contractor work site. LTICL ensures that awarded contractor is following in good waste management practices throughout renovating period, even for short term activity, targeting to maintain zero environmental impact.

The adjacent and or within proposed project area locates in townland near Bago industrial zone and does not define as special area for protecting biodiversity or cultural heritage. There are no protected areas in the vicinity of this site and no special ecological interest within the range of study area for the project location, Bago Township, Bago Region. Developing and Installation should therefore have no major ecological impacts.

7.4.2 Operation

Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Project will be in operation phase soon with operation & maintenance activities include Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis mentioned in Section – 1. Environmental risks which may come out from its normal operation are generation of domestic general solid waste and domestic wastewater only. Most of the potential impacts associated with normal operation of the LTICL relate to the storage and disposal of wastes. A waste management plan in complying with standing instruction under Bago Township Development Committee, BTDC.

7.4.3 Decommissioning/Closure/Post Closure

Decommission/Closure/Post Closure activities may include de-installation of facilities and housekeeping together with reinstatement activities according to agreement between landlord and LTICL. There will be no environmental impact due to nature of and Environmental risks which may come out from its closure of are generation of domestic general solid waste and domestic wastewater only. However, there will be social impact to the employee working at LTICL and therefore it is requirement to comply with existing Myanmar rules & regulations, and procedures & standing instruction especially for the employee has been included.

7.5 Overall budget for implementation of EMP

Overall budget for implementation of EMP (estimated 3000 USD) reserves from LTICL Proposed Project will be used in implementation of EMP activities without fail which complying with existing laws & regulation of Myanmar. The separated and dedicated budget will be reserved by the operator (LTICL EMP Team mentioned in above Figure) to implement effective environmental management plan EMP.

- (a) Development of Environmental awareness induction, training program and launching
- (b) Providing required laboratory use tools & equipment, personal protective equipment (PPE) & tools to run effective environmental management plan
- (c) Enhancing proposed Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis waste management system by management supporting in necessary budget (apart from overall EMP budget), tools & equipment as and when required.
- (d) Some flexible amount of environmental budget will be reserved for EMP audit team (both internal and external auditors) apart from overall EMP budget.

Sr.	Activity	Projected Budget	Responsibility
A	Development Phase		
1	Overall budget for the implementation of EMP for the development phase project activities	3000	MD/Director
B	Operation Phase		
1	Budget for consultancy fees on contract-based third-party consultants' team to prepare EMP Report for the proposed project activities	2000	MD/Director
2	Overall budget in yearly basis for the implementation of EMP for the operation phase project activities	3000	MD/Director
3	Budget for consultancy fees on contract-based third-party consultants' team for specific routine EMP implementation monitoring and preparation for 6 monthly EMP Performance Report	1000	MD/Director
4	Reserve flexible entertainment budget yearly (expenses covering for travel, meals, hotel/motel, etc.,) for the EMP audit team (both internal and external auditors) apart from approved overall EMP budget	1000	MD/Director

Sr.	Activity	Projected Budget	Responsibility
5	Reserving separate CSR Budget as part of the implementation of project EMP	2 % of the annual net income	MD/Director
C	Abandonment Phase		
1	Overall budget for the implementation of EMP for the Abandonment phase project activities	3000	MD/Director

7.6 Management and Monitoring Sub-Plans by Project phase

This section was summarized for the environmental management plan for the proposed project and implementation. Environmental management and monitoring plan has been organized with four main parts: -

- **Impact Assessment and Mitigation Measure** - prepare Environmental Management Plan for the proposed project by environmental experts;
- **Environmental Management Plan** – perform environmental conservation activities to minimize impacts which may arise from the proposed project operation activities by the operator;
- **Auditing & Inspection EMP Performance** – audit & inspect EMP performance to ensure EMP performance of LTICL is acceptable which complying with Myanmar laws & regulations, and procedures & standing instructions by relevant authority; and
- **Reviewing and updating of EMP** – to update EMP periodically for the applicable of EMP to suit with changes in operation activity or changes in Myanmar laws & regulations, and procedures & instructions

Comprehensive Environmental and Social management and monitoring Sub Plans for the operation activities throughout the project period (development, operation, abandonment) is outlined in below Table.

Table: Comprehensive Environmental and Social Management and Monitoring Sub Plans for the operation of proposed project activity

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
Development Phase (1 Year) (Completed)							
Land Clearing & levelling, Ground Floor concrete levelling & polishing	Waste, Dust, & Noise	Potential soil and ground water contamination	All plants and grass inside project area to clear and send designated location under supervision and approval by BTDC Excavated ground soil to use inside project area for levelling the ground and only extra soil to send designated location using safe transportation system as per BTDC instruction To wash down the truck contaminated with muds using for waste transport prior to move in and out. To operate using sound proof type machine at only	Waste Management Plan	Audit of waste storage and disposal practices monthly	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			daytime when background noise is high				
Movement of project vehicle	Physical presence of cargo vehicle	Interference with other road users	Optimize transportation facility. Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users To follow BTDC instruction and notification on project vehicle	Road Transport Management Plan	Audit of Road Transport Management Plan practices monthly	Number of non-compliance with RTMP identified during the audit	Zero non-compliance identified during audit.
Project activities	Non-hazardous waste disposal on land (e.g.	Potential soil and ground water contamination	Site waste management procedure will be in place covering waste	Waste Management Plan	Audit of waste storage and	Number of non-compliances with waste	Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
	wood, scrap metals, plastics, etc.)		segregation, disposing by using burning method or landfill method due to nature of waste. Reuse and recycle waste materials such as wooden, metal, paper and plastics as much as possible. Dispose non-reusable and non-recyclable wastes to an appropriate dumping ground approved by local authority if applicable. Routine inspection and monitoring as part of WMP		disposal practices monthly	management plan identified during the audit	

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
Project activities	Hazardous waste if used necessary chemicals (e.g. acids, paints, pesticide, etc.)	Environment & public health	Reuse and recycle if possible (e.g. used oil and batteries). Disposal of hazardous wastes (waste paint, used oil, and solvent) on land or approved facilities.	Waste Management Plan	Audit of waste storage and disposal practices monthly	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.
Standby Generator operation	Ambient Noise	Operation of generator may impact surrounding residents	Soundproof generator to be used.	Ambient sound monitoring program	Quarterly monitoring of noise from standby generator operation	The level of audible noise from the operations at the nearest residences	Within EQEG Guideline Ambient Noise Limit Zero non-compliance identified during audit.
Standby Generator operation	Release of combustion gases containing SO _x , NO _x , CO ₂ , particulate matter	Air pollution with global warming potential.	Use of low Sulphur diesel. Generator running time will be under control together with to minimize fuel consumption.	Optimized Power Consumption Plan	Audit of power usage and Generator running practices	Number of non-compliances with power management plan identified during the audit	Within EQEG Guideline Air quality Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			Optimized power consumption plan (OPCP) to optimize power consumption by using 1. Computerized power distribution system and less power consumed electronics; LEDs. 2. maintaining maximum efficiency of Standby Generator Annually monitoring generator running hour, diesel fuel usage volume, & power output for standby generator		every 6 months Air Quality monitoring	Air quality monitoring result	
Storing of fuel and chemicals at Storage area	Oil / fuel / chemical spill	Potential soil and ground water contamination.	To store at designated area which including of secondary containment	Oil/Chemical Spill Response Plan (OSRP)	Monthly routine inspection, inventory	No. of oil / chemical spills in a month	Zero oil / chemical spill / loss

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			system and waste collection point. To establish an adequate spill response capability. Operator to ensure all MSDS and spill kit is standby at storage area. Plan and action to ensure no leak or loss of stored items.		and reporting		
Transferring of Fuel and chemicals	Potential loss of diesel and / or chemical to the environment.	Resulting in potential soil contamination.	To obtain fuel and chemicals transfer procedure from contractor To verify personnel has been given training to transfer fuel and chemicals safely To ensure volume of fuel and chemicals transfer to the site is not more than	Oil/Chemical Spill Response Plan (OSRP)	Monthly	No. of oil / chemical spills in a month	Zero oil / chemical spill / loss

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			maximum allowable of the storage capacity To ensure site has in place an oil spill response plan and oil spill response capability To monitor the volume of fuel transfer. Fuel transfer is to be carried out during day time and good weather.				
Domestic wastewater	Discharging of domestic wastewater to ground	Degrading of groundwater quality by discharging of untreated waste water	Carry out necessary filtering and/or treatment system on domestic wastewater from daily activities prior to dispose off	None	Regular water quality monitoring program	Discharged water quality standard	Within EQEG Guideline discharged water quality
Operating LTICL project	Sharing of public area with	Possible Social conflict between	Conduct public hearing to get agreement from local	CSR program	Annually monitoring	The relationship with local people	Zero Conflict with local people

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
	existing local people	local people and project workforce	authority as well as local people on public land usage between project and local community Corporate social responsibility program to create opportunity for local people to work at project Enhance in health and education sector development for local community Develop sustainable socio eco program				
Discharge of storm & rain water onto ground	Soil and surface water	Discharge of storm & rain water onto ground could result in flooding,	Discharging of storm & rain into proper drains	None	Weekly checking of the drain ways	Storm & rain water not flowing into drain line	Zero leakage of discharged storm & rain water onto ground

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
		decrease of surface water quality and potentially impact human health					
Disposal of general solid waste	Air quality (for incineration)	Incineration of solid waste will result in emission of particulates	Collect by BTDC and dispose at designated waste disposal site. Record to ensure wastes are disposed according to waste management plan	Waste Management Plan	Audit of waste storage and disposal practices every 6 months	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
Disposal of Canteen waste	Human Health	Improper discharge of the waste could result potentially impact human health by spread diseases from the population of flies / rats / rodents, etc.	Encourage to supply for feeding farm animal	Waste Management Plan	Audit of waste storage and disposal practices every 6 months	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.
Disposal of Sanitary Waste	Generate bacterial that can spark on health disease (such as diarrhea)	Soil and ground water contamination	Sewage will be discharge in septic tank.	Waste Management Plan	Audit of waste storage and disposal practices every 6 months	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.
Operation Phase (20 Year) (On going process)							

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
Movement of project vehicle	Physical presence of cargo vehicle	Interference with other road users	Optimize transportation facility. Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users To follow BTDC instruction and notification on construction project vehicle	Road Transport Management Plan	Audit of Road Transport Management Plan practices monthly	Number of non-compliance with RTMP identified during the audit	Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
Project activities	Hazardous waste if used necessary chemicals (e.g. acids, paints, pesticide, etc.)	Environment & public health	Reuse and recycle if possible (e.g. used oil and batteries). Disposal of hazardous wastes (waste paint, used oil, and solvent) on land or approved facilities.	Waste Management Plan	Audit of waste storage and disposal practices monthly	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.
Project activities	Non-hazardous waste disposal on land (e.g. wood, scrap metals, plastics, etc.)	Potential soil and ground water contamination	Site waste management procedure will be in place covering waste segregation, disposing by using burning method or landfill method due to nature of waste. Reuse and recycle waste materials such as wooden, metal, paper and plastics as much as possible. Dispose non-reusable and non-recyclable wastes to	Waste Management Plan	Audit of waste storage and disposal practices monthly	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			an appropriate dumping ground approved by local authority if applicable. Routine inspection and monitoring as part of WMP				
Standby Generator operation	Ambient Noise	Operation of generator may impact surrounding residents	Soundproof generator to be used.	Ambient sound monitoring program	Quarterly monitoring of noise from standby generator operation	The level of audible noise from the operations at the nearest residences	Zero audible noise
Discharge of storm & rain water onto ground	Soil and surface water	Discharge of storm & rain water onto ground could result in flooding, decrease of surface water quality and	Discharging of storm & rain into proper drains	None	Weekly checking of the drain ways	Storm & rain water not flowing into drain line	Zero leakage of discharged storm & rain water onto ground

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
		potentially impact human health					
Standby Generator operation	Ambient Noise	Operation of generator may impact surrounding residents	Soundproof generator to be used.	Ambient sound monitoring program	Quarterly monitoring of noise from standby generator operation	The level of audible noise from the operations at the nearest residences	Within EQEG Guideline Ambient Noise Limit Zero non-compliance identified during audit.
Standby Generator operation	Release of combustion gases containing SO _x , NO _x , CO ₂ , particulate matter	Air pollution with global warming potential.	Use of low Sulphur diesel. Generator running time will be under control together with to minimize fuel consumption. Optimized power consumption plan (OPCP) to optimize power consumption by using 1. Computerized power distribution system and	Optimized Power Consumption Plan	Audit of power usage and Generator running practices every 6 months Air Quality yearly monitoring	Number of non-compliances with power management plan identified during the audit Air quality monitoring result	Within EQEG Guideline Air quality Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			less power consumed electronics; LEDs. 2. maintaining maximum efficiency of Standby Generator Annually monitoring generator running hour, diesel fuel usage volume, & power output for standby generator				
Storing of fuel and chemicals at Storage area	Oil / fuel / chemical spill	Potential soil and ground water contamination.	To store at designated area which including of secondary containment system and waste collection point. To establish an adequate spill response capability. Operator to ensure all MSDS and spill kit is standby at storage area.	Oil/Chemical Spill Response Plan (OSRP)	Monthly routine inspection, inventory and reporting	No. of oil / chemical spills in a month	Zero oil / chemical spill / loss

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			Plan and action to ensure no leak or loss of stored items.				
Transferring of Fuel and chemicals	Potential loss of diesel and / or chemical to the environment.	Resulting in potential soil contamination.	To obtain fuel and chemicals transfer procedure from contractor To verify personnel has been given training to transfer fuel and chemicals safely To ensure volume of fuel and chemicals transfer to the site is not more than maximum allowable of the storage capacity To ensure site has in place an oil spill response plan and oil spill response capability	Oil/Chemical Spill Response Plan (OSRP)	Monthly	No. of oil / chemical spills in a month	Zero oil / chemical spill / loss

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			To monitor the volume of fuel transfer. Fuel transfer is to be carried out during day time and good weather.				
Domestic wastewater and operational produced water	Discharging of domestic wastewater and operational produced water to ground	Degrading of groundwater quality by discharging of untreated waste water	Carry out necessary filtering and/or treatment system on domestic water and produced water from operational activities prior to dispose off	None	Regular water quality monitoring program	Discharged water quality standard	Within EQEG Guideline discharged water quality
Operating LTICL project	Sharing of public area with existing local people	Possible Social conflict between local people and project workforce	Conduct public hearing to get agreement from local authority as well as local people on public land usage between project and local community Corporate social responsibility program to create opportunity for	CSR program	Annually monitoring	The relationship with local people	Zero Conflict with local people

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			local people to work at project Enhance in health and education sector development for local community Develop sustainable socio eco program				
Discharge of storm & rain water onto ground	Soil and surface water	Discharge of storm & rain water onto ground could result in flooding, decrease of surface water quality and potentially impact human health	Discharging of storm & rain into proper drains	None	Weekly checking of the drain ways	Storm & rain water not flowing into drain line	Zero leakage of discharged storm & rain water onto ground

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
Disposal of general solid waste	Air quality (for incineration)	Incineration of solid waste will result in emission of particulates	Collect by BTDC and dispose at designated waste disposal site. Record to ensure wastes are disposed according to waste management plan	Waste Management Plan	Audit of waste storage and disposal practices every 6 months	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.
Disposal of Canteen / Kitchen waste	Human Health	Improper discharge of the waste could result potentially impact human health by spread diseases from the population of flies / rats / rodents, etc.	Encourage to supply for feeding farm animal	Waste Management Plan	Audit of waste storage and disposal practices every 6 months	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
Disposal of Sanitary Waste	Generate bacterial that can spark on health disease (such as diarrhea)	Soil and ground water contamination	Sewage will be discharge in septic tank.	Waste Management Plan	Audit of waste storage and disposal practices every 6 months	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.
Abandonment Phase (3 to 6 Month) (TBA)							
Close out Activities of LTICL project	Sharing of public area with existing local people	Possible Social conflict between local people and project workforce	Conduct public hearing to get agreement from local authority as well as local people on public land usage between project and local community Set up final Sustainable Socio-economic program under Corporate Social Responsibility program	CSR program	Annually monitoring for three years after close out of the project	The relationship with local people	Zero Conflict with local people

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
Movement of project vehicle	Physical presence of cargo vehicle	Interference with other road users	Optimize transportation facility. Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing Vehicle inspection & report immediately if any anomaly observed. Select route & time to minimize disturbance to other road users To follow BTDC instruction and notification on project vehicle	Road Transport Management Plan	Audit of Road Transport Management Plan practices monthly	Number of non-compliance with RTMP identified during the audit	Zero non-compliance identified during audit.
Standby Generator operation	Ambient Noise	Operation of generator may impact surrounding residents	Soundproof generator to be used.	Ambient sound monitoring program	Quarterly monitoring of noise from standby	The level of audible noise from the operations at the	Within EQEG Guideline Ambient Noise Limit

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
					generator operation	nearest residences	Zero non-compliance identified during audit.
Standby Generator operation	Release of combustion gases containing SO _x , NO _x , CO ₂ , particulate matter	Air pollution with global warming potential.	Use of low Sulphur diesel. Generator running time will be under control together with to minimize fuel consumption. Optimized power consumption plan (OPCP) to optimize power consumption by using 1. Computerized power distribution system and less power consumed electronics; LEDs. 2. maintaining maximum efficiency of Standby Generator	Optimized Power Consumption Plan	Audit of power usage and Generator running practices Air Quality monitoring	Number of non-compliances with power management plan identified during the audit Air quality monitoring result	Within EQEG Guideline Air quality Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			Monitoring generator running hour, diesel fuel usage volume, & power output for standby generator				
Discharge of storm & rain water onto ground	Soil and surface water	Discharge of storm & rain water onto ground could result in flooding, decrease of surface water quality and potentially impact human health	Discharging of storm & rain into proper drains	None	Weekly checking of the drain ways	Storm & rain water not flowing into drain line	Zero leakage of discharged storm & rain water onto ground
Disposal of general solid waste	Air quality (for incineration)	Incineration of solid waste will result in emission of particulates	Collect by BTDC and dispose at designated waste disposal site. Record to ensure wastes	Waste Management Plan	Audit of waste storage and disposal practices	Number of non-compliances with waste management	Zero non-compliance identified during audit.

Activity	Environmental Aspect	Potential Impact	Mitigation Action	Management Action	Monitoring Activity	Environmental Performance Indicator	Environmental Performance Objective
			are disposed according to waste management plan		every 6 months	plan identified during the audit	
Disposal of Canteen waste	Human Health	Improper discharge of the waste could result potentially impact human health by spread diseases from the population of flies / rats / rodents, etc.	Encourage to supply for feeding farm animal	Waste Management Plan	Audit of waste storage and disposal practices every 6 months	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.
Disposal of Sanitary Waste	Generate bacterial that can spark on health disease (such as diarrhea)	Soil and ground water contamination	Sewage will be discharge in septic tank.	Waste Management Plan	Audit of waste storage and disposal practices	Number of non-compliances with waste management plan identified during the audit	Zero non-compliance identified during audit.

7.6.1 Legal Requirement

Sr. No.	Category	Legal Requirement
1	Noise	NEQEG General Guidelines
2	Vibrations	NEQEG General Guidelines
3	Air Quality (SO ₂ , NO _x , CO, PM ₁₀ , PM _{2.5} , etc.)	NEQEG General Guidelines
4	Odor	EIA Procedure
5	General Waste Management	EIA Procedure
6	Hazardous waste management	EIA Procedure
7	Wastewater and storm water management	NEQEG General Guidelines
8	Chemicals Storage Management	EIA Procedure
9	Drinking Water Quality	WHO & FDA
10	Soil (erosion and sedimentation) Control	EIA Procedure
11	Biodiversity	EIA Procedure
12	Occupational and Community Health	EIA Procedure
13	Safety (Fire & worksite safety)	Labor Law
14	Emergency Response	EIA Procedure
15	Employment and Training	EIA Procedure
16	Cultural Heritage	EIA Procedure
17	Corporate Social Responsibility	EIA Procedure
18	Public Complaint on project activity	Myanmar Laws

7.6.2 Objectives of Sub-Plan

Sr. No.	Category	Objective
1	Air Quality (Noise)	To maintain at ALARP level
2	Air Quality (SO ₂ , NO ₂ , CO, PM ₁₀ , PM _{2.5} , etc.)	To maintain at ALARP level
3	Wastewater Quality	To maintain at ALARP level
4	Natural resources & Energy Consumption	To minimize usage ALARP level
5	Fuel/Chemical Consumption	To minimize usage ALARP level
6	Fuel/Chemical Storage and Handling	To maintain at ALARP level
7	Waste Generated from project activities	To minimize ALARP level
8	Waste Management System	To maintain at ALARP level
9	General Solid Waste Management	To maintain at ALARP level
10	Domestic Wastewater Management	To maintain at ALARP level

11	Kitchen/Canteen Waste Management	To maintain at ALARP level
12	Sanitary Waste Management	To maintain at ALARP level
13	Lighting & Ventilation at worksite	To maintain at ALARP level
14	Fire & Emergency Response Plan	To be ready at anytime
15	Natural Disaster Management System	To be ready if happen
16	Social Welfare for employee	To support effectively
17	Corporate Social Responsibility Activity	To share its benefits with local community
18	Public Complaint on Project Activities	To solve any conflicts as win-win approach

7.6.3 Implementation Schedule

Overall EMP Implementation for the proposed project and frequency for reporting is tentatively scheduled as below.

Project Phase	Project Period	EMP Implementation Schedule	Frequency
Development	1 Year	1 Year	6 Monthly
Operation	20 Year	20 Year	6 monthly
Abandonment	3 – 6 Month	6 Month	6 monthly

7.6.4 Management Actions

LTICL EMP Management Team has action plan for the Environmental Management Plan implementation managing to reduce / minimize possible impact as low as reasonably practicable level which may come out from proposed project activities all 3 phases (development, operation, and abandonment) of Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis in proposed area. EMP Implementation Management Actions are described in below table.

Table.: Management Action for LTICL Environmental Management Plan Implementation

Sr.	Management Action	Schedule	Responsibility
A	Development Phase (1 Year) (Short Term)		
1	Setting Internal Environmental Management Plan Implementation Team to be led by Project Manager	Once in Project Period and update as necessary	MD/Director
2	Reserving EMP Overall Budget for the implementation of project EMP	Yearly	MD/Director
3	Implementation of Environmental Management Plan	Project Period	EMP Implementation Team
4	Environmental and social related issues to Include in project operation meeting for necessary solution	Monthly	Project Manager
5	Project involved Environmental conservation activities and corporate social responsibility activities performance record to display at project area notice board	Monthly	Project Manager
6	Register/record energy and natural resources consumption	Monthly	Environmental Coordinator
7	Register/record raw material used in development	Monthly	Environmental Coordinator
8	Register/record machinery & equipment used in facility installation	Monthly	Project Manager
9	Ensure all designs and facility installation is as per proposal	Once before develop	Project Manager
10	Check & record development activity progress together with EMP Implementation	Monthly	Project Manager
11	Noise: Check all alternative generators are sound proof system before install	Once	Project Manager
12	Vibrations: check to ensure no high vibration source on site	6 Monthly	Project Manager
13	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.): Use low Sulphur content type Diesel Fuel for the alternative generators, and	Monthly	Project Manager/Maintenance Team

Sr.	Management Action	Schedule	Responsibility
	Maintain maximum efficiency level of generators	Monthly	Maintenance
14	Odor: check to ensure no obvious odor source at project area	Monthly	Project Manager
15	Implement project waste management system	Project Period	Project Manager
16	Waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL environmental coordinator	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team
17	Hazardous waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL Supervisor	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team
18	Wastewater and storm water: Inspection of the domestic wastewater drains	Weekly at wet season / Monthly at dry season	Project Manager/ Assigned person

Sr.	Management Action	Schedule	Responsibility
19	Chemicals: Setting designated Chemical Storage Area with emergency wash/shower, Check chemical storage area Chemical handling training for relevant staff	Once Monthly Once	MD/Director Project Manager Project Manager
20	Water Quality: Install water treatment system prior to dispose to drain	Once	Director/ Project Manager
21	Soil (erosion and sedimentation): Install concrete drainage system	Once	Director/ Project Manager
22	Biodiversity: Encourage all staff through environmental education talks to involve in environmental conservation	Yearly	Project Manager
23	Occupational and Community Health: Collaborate with Bago Township Medical Officer to ensure staffs and local people getting necessary health support from project proponent	Yearly	Director/ Project Manager
24	Safety: Provide personal protective equipment (PPE) for staff, install enough lighting, ventilation system, fire safety system, warning signs, create safe worksite, Conduct safety briefing prior to start the job Maintain all Safety Gears to ensure all are in operational level, replace with good ones if it's not in good condition to use.	Once Monthly Monthly	Director/ project Manager Project Manager Project Manager
25	Cultural Heritage: Report relevant authority if historical valuable items found during digging ground within project area	When digging ground	Director/ Project Manager
26	Corporate Social Responsibility: To support local community development activities with reserved CSR budget in collaboration with local authority	Yearly	Director/Factory Manager

Sr.	Management Action	Schedule	Responsibility
27	Public Complaint on project activity: To settle all conflict using win-win method	When receiving public complaint	Director/Project Manager
28	Fire Safety & Emergency Response: Install fire safety & emergency response system Inspect in collaboration with authority of Township Fire Services Department Conduct Drill/exercise how to response if there is in emergency (fire, etc.,)	Once installation Yearly 6 monthly	Director/Project Manager Project Manager Project Manager and Staff
29	Natural Disaster Management: To collaborate with relevant Township authorities: General Administration, and Fire Services, etc., Conduct Drill/exercise how to manage if there is natural disaster (earthquake, etc.,)	Project Period Yearly	Factory Manager Director/Project Manager
30	Implement project waste management system	Project Period	Project Manager
31	Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL Supervisor	Daily Twice a week Monthly	Maintenance Team Maintenance Team Maintenance Team
32	Inspection of the domestic wastewater drains	Weekly at wet season / Monthly at dry season	Factory Manager/ Assigned person
33	Inspection of General Waste Storage & Disposing Practices	Monthly	Project Manager/ Assigned person

Sr.	Management Action	Schedule	Responsibility
34	Digital Photographic Data Recording for Operations & Maintenance activities Digital Photographic Data Recording for Environmental & Social CSR activities	Monthly Monthly	Project Manager/ Assigned person
35	Audit on waste storage and disposal practices	3 Monthly	Project Manager/ E Assigned person
36	Audit on hazardous waste tracking documentation	3 Monthly	Project Manager/ Assigned person
37	Audit on EMP Implementation practice	6 Monthly	MD/Director/ Assigned person
38	Performance Reporting on EMP Implementation to Relevant Authority (ECD)	6 Monthly	MD/Director/ Assigned person
B	Operation Phase (19 Year) (Long Term)		
1	Reorganize existing Environmental Management Plan Implementation Team to be led by Factory Manager	Once and update as necessary	MD/Director
2	Reserving EMP Overall Budget for the implementation of project EMP	Yearly	MD/Director
3	Implementation of Environmental Management Plan	Project Period	EMP Implementation Team
4	Environmental and social related issues to Include in project operation meeting for necessary solution	Monthly	Factory Manager
5	Project involved Environmental conservation activities and corporate social responsibility activities performance record to display at project area notice board	Monthly	Factory Manager
6	Register/record energy and natural resources consumption	Monthly	Environmental Coordinator
7	Register/record raw material received and final products	Weekly	Environmental Coordinator
8	Check & record operation activity progress together with EMP Implementation	Monthly	Factory Manager
9	Noise: Check to ensure all alternative generators are sound proof system	Before installation	MD/Director/Factory Manager

Sr.	Management Action	Schedule	Responsibility
10	Vibrations: check to ensure no high vibration source on site	6 Monthly	Factory Manager
11	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.): Use low Sulphur content type Diesel Fuel for the alternative generators, and Maintain maximum efficiency level of generators	Monthly Monthly	Factory Manager/ Maintenance Team Maintenance
12	Odor: check to ensure no obvious odor source at project area	Monthly	Factory Manager/ Environmental Coordinator
13	Implement project waste management system	Project Period	Factory Manager
14	Waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL environmental coordinator	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team
15	Hazardous waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver.	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team

Sr.	Management Action	Schedule	Responsibility
	Compiled recorded waste generated within a month and report to LTICL environmental coordinator		
16	Wastewater and storm water: Inspection of the domestic wastewater drains	Weekly at wet season / Monthly at dry season	Factory Manager/ Environmental Coordinator
17	Chemicals: Setting designated Chemical Storage Area with emergency wash/shower, Check chemical storage area Chemical handling training for relevant staff	Once Monthly Once/Yearly	MD/Director Factory Manager Factory Manager
18	Water Quality: Install water treatment system prior to dispose to drain	Once	Director/Factory Manager
19	Soil (erosion and sedimentation): Install concrete drainage system	Once	Director/Factory Manager
20	Biodiversity: Encourage all staff through environmental education talks to involve in environmental conservation	Yearly	Factory Manager
21	Occupational and Community Health: Collaborate with Bago Township Medical Officer to ensure staffs and local people getting necessary health support from project proponent	Yearly	Director/Factory Manager
22	Safety: Provide personal protective equipment (PPE) for staff, install enough lighting, ventilation system, fire safety system, warning signs, create safe worksite, Conduct safety briefing prior to start the job	Once Monthly Monthly	Director/Factory Manager Factory Manager Factory Manager

Sr.	Management Action	Schedule	Responsibility
	Maintain all Safety Gears to ensure all are in operational level, replace with good ones if it's not in good condition to use.		
23	Cultural Heritage: Report relevant authority if historical valuable items found during digging ground within project area	When digging ground	Director/Factory Manager
24	Employment and Training: Ensure to appoint all staff and provide technical training and personal development training in accordance with Myanmar Labour Law	Project Period	Director/Factory Manager
25	Social Welfare: Ensure to create social welfare programs such as bonus, yearly increment, annual dinner party, health care of staff and its family member, education support to staff and its family member, etc.,	Project Period	Director/Factory Manager
26	Corporate Social Responsibility: To support local community development activities with reserved CSR budget in collaboration with local authority	Yearly	Director/Factory Manager
27	Public Complaint on project activity: To settle all conflict using win-win method	When receiving public complaint	Director/Factory Manager
28	Fire Safety & Emergency Response: Install fire safety & emergency response system Inspect in collaboration with authority of Township Fire Services Department Conduct Drill/exercise how to response if there is in emergency (fire, etc.,)	Once installation Yearly 3 monthly	Director/Factory Manager Factory Manager Factory Manager and Staff
29	Natural Disaster Management: To collaborate with relevant Township authorities: General Administration, and Fire Services, etc.,	Project Period Yearly	Factory Manager Director/Factory Manager

Sr.	Management Action	Schedule	Responsibility
	Conduct Drill/exercise how to manage if there is natural disaster (earthquake, etc.,)		
30	Implement project waste management system	Project Period	Factory Manager
31	Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL environmental coordinator	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team
32	Inspection of the domestic wastewater drains	Weekly at wet season / Monthly at dry season	Factory Manager/ Environmental Coordinator
33	Inspection of General Waste Storage & Disposing Practices	Monthly	Factory Manager/ Environmental Coordinator
34	Digital Photographic Data Recording for Operations & Maintenance activities Digital Photographic Data Recording for Environmental & Social CSR activities	Monthly Monthly	Factory Manager/ Environmental Coordinator
35	Audit on waste storage and disposal practices	Quarterly	Factory Manager/ Environmental Coordinator
36	Audit on hazardous waste tracking documentation	Quarterly	Factory Manager/ Environmental Coordinator

Sr.	Management Action	Schedule	Responsibility
37	Audit on EMP Implementation Practice	6 Monthly	MD/Director & Third Party
38	LTICL Management Review on EMP implementation	Annually	MD/Director & Factory Manager
39	Update Environmental Management Plan based on outcome from LTICL Management Review and Instruction from relevant Authority	2 Yearly / (or) defined by Authority	MD/Director & Third party external
40	Environmental Awareness Poster Disclosure	Monthly/ 3 Monthly	Factory Manager/ Environmental Coordinator
41	Compilation of registered/recorded Environmental data	Monthly	Factory Manager/ Environmental Coordinator
42	Provide compiled environmental data for EMP Performance Reporting to ECD	Monthly	Factory Manager/ Environmental Coordinator
43	Prepare Project Operation Phase EMP Performance Report	6 Monthly	MD/Director & Third Party external
44	Performance Reporting on EMP Implementation to Relevant Authority (ECD)	6 Monthly	MD/Director/Factory Manager/ Environmental Coordinator
45	External Official Environmental Audit on EMP Implementation	To be advised by relevant authority	Relevant Authority
C	Abandonment Phase (3 Month to 1 Year) (Short Term)		
1	Reorganizing Environmental Management Plan Implementation Team to be led by Factory Manager	Once and Update as necessary	MD/Director
2	Reserving EMP Overall Budget on the EMP implementation for project activity	Yearly	MD/Director
3	Implementation of Environmental Management Plan	Project Period	EMP Implementation Team

Sr.	Management Action	Schedule	Responsibility
4	Environmental and social related issues to Include in project operation meeting for necessary solution	Monthly	Factory Manager
5	Project involved Environmental conservation activities and corporate social responsibility activities performance record to display at project area notice board	Monthly	Factory Manager
6	Register/record energy and natural resources consumption	Monthly	Environmental Coordinator
7	Register/record raw material received and final products before close out.	Once/Monthly	Environmental Coordinator
8	Check & record project activity progress together with EMP Implementation	Monthly	Factory Manager
9	Noise: Check to ensure all abandonment activity works at daytime only	Workdays	MD/Director/Factory Manager
10	Vibrations: check to ensure no high vibration source on site	3 Monthly	Factory Manager
11	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.): Use low Sulphur content type Diesel Fuel for the alternative generators, and Maintain maximum efficiency level of generators	Monthly Monthly	Factory Manager/Maintenance Team Maintenance
12	Odor: check to ensure no obvious odor source at project area	Monthly	Factory Manager/ Assigned person
13	Implement project waste management system	Project Period	Factory Manager
14	Waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver.	Daily Twice a week Monthly	Maintenance Team Maintenance Team Maintenance Team

Sr.	Management Action	Schedule	Responsibility
	Compiled recorded waste generated within a month and report to LTICL Supervisor		
15	Hazardous waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL Supervisor	Daily Twice a week Monthly	Maintenance Team Maintenance Team Maintenance Team
16	Wastewater and storm water: Inspection of the domestic wastewater drains	Monthly	Factory Manager/Assigned person
17	Check chemical storage area Chemical handling training for relevant staff	Monthly Once/Yearly	Factory Manager Factory Manager
18	Water Quality: Install water treatment system prior to dispose to drain	Once	Director/Factory Manager
19	Soil (erosion and sedimentation): Install concrete drainage system	Once	Director/Factory Manager
20	Biodiversity: Encourage all staff through environmental education talks to involve in environmental conservation	Yearly	Factory Manager
21	Occupational and Community Health: Collaborate with Bago Township Medical Officer to ensure staffs and local people getting necessary health support from project proponent	Yearly	Director/Factory Manager
22	Conduct safety briefing prior to start the job	Monthly	Factory Manager

Sr.	Management Action	Schedule	Responsibility
	Maintain all Safety Gears to ensure all are in operational level, replace with good ones if it's not in good condition to use.	Monthly	Factory Manager
23	Cultural Heritage: Report relevant authority if historical valuable items found during digging ground within project area	When digging ground	Director/Factory Manager
24	Employment and Training: Ensure skill of all appointed staff match with focus job and provide technical training if required in accordance with Myanmar Labour Law	Project Period	Director/Factory Manager
25	Social Welfare: Ensure to create social welfare programs such as bonus, yearly increment, annual dinner party, health care of staff and its family member, education support to staff and its family member, etc.,	Project Period	Director/Factory Manager
26	Corporate Social Responsibility: To support local community development activities with reserved CSR budget in collaboration with local authority	Yearly	Director/Factory Manager
27	Public Complaint on project activity: To settle all conflict using win-win method	When receiving public complaint	Director/Factory Manager
28	Inspect Fire Safety system & Emergency Response system in collaboration with authority of Township Fire Services Department	Yearly	Factory Manager
	Conduct Drill/exercise how to response if there is in emergency (fire, etc.,)	3 monthly	Factory Manager and Staff
29	Natural Disaster Management: To collaborate with relevant Township authorities: General Administration, and Fire Services, etc.,	Project Period	Factory Manager
	Conduct Drill how to manage if there is natural disaster (earthquake, etc.,)	Yearly	Director/Factory Manager
30	Implement project waste management system	Project Period	Factory Manager

Sr.	Management Action	Schedule	Responsibility
31	Collect waste according to waste type (general solid waste, hazardous waste, etc.) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL Supervisor	Daily	Maintenance Team
		Twice a week	Maintenance Team
		Monthly	Maintenance Team
32	Inspection of the domestic wastewater drains before closeout of project operation	Once	Factory Manager/ Assigned person
33	Inspection of General Waste Storage & Disposing Practices before closeout of project operation	Once	Factory Manager/ Assigned person
34	Digital Photographic Data Recording for Operations & Maintenance activities Digital Photographic Data Recording for Environmental & Social CSR activities	Monthly	Factory Manager/ Assigned person
		Monthly	
35	Inspection of General Waste Storage & Disposing Practices	Once before closeout of project operation	Factory Manager/ Assigned person
36	Audit of waste storage and disposal practices before closeout of project operation	Once	Factory Manager/ Assigned person
37	Audit of hazardous waste tracking documentation before closeout of project operation	Once	Factory Manager/ Assigned person
38	Internal Environmental audit on EMP Implementation before closeout of project operation	Once	MD/Director & Third Party
39	LTICL Management Review on EMP implementation before closeout of project operation	Once	MD/Director & Factory Manager

Sr.	Management Action	Schedule	Responsibility
40	Provide compiled environmental data for the preparation of Abandonment Phase EMP Performance Report before closeout of project operation	Once	Factory Manager/ Environmental Coordinator
41	Prepare Project Abandonment Phase EMP Performance Report before closeout of project operation	Once	MD/Director & Third Party external
42	Project Abandonment Phase EMP Performance Reporting to ECD before closeout of project operation	Once	MD/Director/Factory Manager/ Environmental Coordinator
43	External Official Environmental Audit on EMP Implementation	To be advised by relevant authority	Relevant Authority

Corrective Action Procedures and an EMP Auditing Procedure are presented in Appendix

7.6.5 Monitoring Plans

LTICL EMP Implementation Team has action plan for the Environmental Management Plan implementing to reduce / minimize possible impact as low as reasonably practicable level which may come out from proposed project activities all 3 phases (development, operation, and abandonment) of Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis in proposed area. EMP Implementation Monitoring Plans are described in below table.

Table 7.6.5.1: Monitoring Plan & Schedules for LTICL Environmental Management Plan Implementation

Sr.	EMP Implementation Monitoring Plan	Schedule	Action By	Verified by
A	Development Phase (1 Year) (Short Term)			
1	Noise from project activity	Monthly	Third party	LTICL
2	Vibrations	Monthly	Internal	LTICL
3	Waste (General Waste generated from project activities)	Monthly	Internal	LTICL
4	Hazardous Waste (generated from project activities)	Monthly	Internal	LTICL
5	Wastewater (produced from project activities) and storm water	Monthly	Internal	LTICL
6	Air quality	Once in 6 Month	Third party	LTICL
7	Odor	Monthly	Internal	LTICL
8	Chemicals	Monthly	Internal	LTICL
9	Water quality in the Project Area	Monthly	Third party	LTICL
10	Erosion and sedimentation	Monthly	Internal	LTICL
11	Biodiversity	3 Monthly	Internal	LTICL
12	Natural resources consumption (domestic water) in the proposed project operation	Monthly	Internal	LTICL
13	Fuel/Chemical Consumption for Standby Power Generator Operating	Monthly	Internal	LTICL
14	Material, Machinery & Equipment	Monthly	Internal	LTICL
15	Occupational and community health	Monthly	Internal	LTICL
16	Safety performance	Monthly	Internal	LTICL
17	Cultural Heritage	Monthly	Internal	LTICL
18	Employment and Training	Monthly	Internal	LTICL

Sr.	EMP Implementation Monitoring Plan	Schedule	Action By	Verified by
19	Digital Photographic Data Recording for Development activities	Weekly	Project Manager/	LTICL
	Digital Photographic Data Recording for Environmental & Social CSR activities	Weekly	Assigned Person	
B	Operation Phase (19 Year) (Long Term)			
1	Noise	Once in 6 Month	Third party	LTICL
2	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.)	Once in 6 Month	Third party	LTICL
3	Odor	Monthly	Internal	LTICL
4	General Waste Management	Monthly	Internal	LTICL
5	Hazardous waste management	Monthly	Internal	LTICL
6	Wastewater and storm water management	Monthly	Internal	LTICL
7	Chemicals Storage Management	Monthly	Internal	LTICL
8	Water Quality	Once in 6 Month	Third party	LTICL
9	Soil (erosion and sedimentation) control Maintenance	Monthly	Third party	LTICL
10	Occupational and Community Health	Monthly	Internal	LTICL
11	Safety (Worksite Safety)	Monthly	Internal	LTICL
12	Employment and Training	Monthly	Internal	LTICL
13	Fire Safety & Emergency Response	Monthly	Internal	LTICL
14	Social Welfare	Monthly/Yearly	Internal	LTICL
15	Corporate Social Responsibility	Monthly	Internal	LTICL
16	Public Complaint on project activity	Monthly	Internal	LTICL
17	Natural Disaster Management	Monthly	Internal	LTICL

Sr.	EMP Implementation Monitoring Plan	Schedule	Action By	Verified by
18	Digital Photographic Data Recording for Operations & Maintenance activities Digital Photographic Data Recording for Environmental & Social CSR activities	Monthly Monthly	Factory Manager/ Assigned Person	LTICL
19	Internal Audit on Waste Management	3 Monthly	Factory Manager	MD/Director
20	Internal Audit on Implementation of EMP	6 Monthly	Director	MD
21	Reporting on Implementation of EMP for the proposed project	6 Monthly	LTICL	ECD
22	LTICL Management Review and Improvement Action on EMP Implementation	Yearly	Factory Manager	MD/Director
C	Abandonment Phase (3 Month to 1 Year) (Short Term)			
1	Noise	Once in 6 Month	Third party	LTICL
2	Vibrations	Monthly	Internal	LTICL
3	Air Quality (SO ₂ , NO ₂ , CO, PM ₁₀ , PM _{2.5} , etc.)	Once in 6 Month	Third party	LTICL
4	Odor	Monthly	Internal	LTICL
5	General Waste Management	Monthly	Internal	LTICL
6	Hazardous waste management	Monthly	Internal	LTICL
7	Wastewater and storm water management	Monthly	Internal	LTICL
8	Chemicals Storage Management	Monthly	Internal	LTICL
9	Water Quality	Once in 6 Month	Third party	LTICL
10	Reinstatement (Rehabilitation)	Monthly	Internal	LTICL
11	Occupational and Community Health	Monthly	Internal	LTICL
12	Safety (Fire & worksite safety)	Monthly	Internal	LTICL
13	Emergency Response	Monthly	Internal	LTICL

Sr.	EMP Implementation Monitoring Plan	Schedule	Action By	Verified by
14	Social Welfare	Monthly	Internal	LTICL
15	Corporate Social Responsibility	Monthly Monthly	Factory Manager/ Assigned Person	LTICL
16	Public Complaint on project activity	Monthly	Internal	LTICL
17	Digital Photographic recording	Monthly	Internal	LTICL
18	Internal Audit on Waste Management	Monthly	Factory Manager	MD/Director
19	Internal Audit on Implementation of EMP	Monthly	Director	MD
20	Close Out Reporting on end of Implementation of EMP for the proposed project	Once after abandonment	LTICL	ECD

Corrective Action Procedures and an EMP Auditing Procedure are presented in Appendix

7.6.6 Projected Budgets and Responsibilities

Yearly based, estimated Projected Budgets and Responsibilities for the implementation of EMP for proposed project operation activities is present in below Tables

Table.: LTICL Projected Budgets and Responsibilities for EMP Implementation

Sr.	EMP Implementation Activity	Projected Budget (USD)	Responsibility
A	Development Phase	3000	LTICL
1	Noise	200	LTICL
2	Vibrations	200	LTICL
3	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.)	600	LTICL
4	Odor	200	LTICL
5	General Waste Management	200	LTICL
6	Hazardous waste management	200	LTICL
7	Wastewater and storm water management	200	LTICL
8	Chemicals Storage Management	200	LTICL
9	Water Quality	200	LTICL
10	Soil (erosion and sedimentation) Control	400	LTICL
11	Biodiversity	0	LTICL
12	Occupational and Community Health	0	LTICL
13	Safety (Fire & worksite safety)	200	LTICL
14	Emergency Response	200	LTICL
15	Employment and Training	0	LTICL
16	Cultural Heritage	0	LTICL
17	Corporate Social Responsibility	CSR Budget	LTICL
18	Public Complaint on project activity	CSR Budget	LTICL
19	Digital Photographic recording	0	LTICL
Estimated Overall Yearly Budget for Implementation of EMP (Development Phase) = 3000			

Sr.	Activity	Projected Budget (USD)	Responsibility
B	Operation Phase	3000	LTICL
1	Noise	200	LTICL
2	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.)	600	LTICL
3	Odor	200	LTICL
4	General Waste Management	200	LTICL
5	Hazardous waste management	200	LTICL
6	Wastewater and storm water management	200	LTICL

Sr.	Activity	Projected Budget (USD)	Responsibility
7	Chemicals Storage Management	200	LTICL
8	Water Quality	200	LTICL
9	Soil (erosion and sedimentation) control Maintenance	200	LTICL
10	Occupational and Community Health	200	LTICL
11	Safety (Worksite Safety)	200	LTICL
12	Employment and Training	200	LTICL
13	Fire Safety & Emergency Response	200	LTICL
14	Social Welfare	CSR Budget	LTICL
15	Corporate Social Responsibility	CSR Budget	LTICL
16	Public Complaint on project activity	CSR Budget	LTICL
17	Natural Disaster Management	CSR Budget	LTICL
18	Digital Photographic recording	0	LTICL
Estimated Overall Yearly Budget for Implementation of EMP (Operation Phase) = 3000			

Sr.	Activity	Projected Budget (USD)	Responsibility
C	Abandonment Phase	3000	LTICL
1	Noise	200	LTICL
2	Vibrations	200	LTICL
3	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.)	600	LTICL
4	Odor	200	LTICL
5	General Waste Management	200	LTICL
6	Hazardous waste management	200	LTICL
7	Wastewater and storm water management	200	LTICL
8	Chemicals Storage Management	200	LTICL
9	Water Quality	200	LTICL
10	Reinstatement (Rehabilitation)	400	LTICL
11	Occupational and Community Health	200	LTICL
12	Safety (Fire & worksite safety)	200	LTICL
13	Emergency Response	CSR Budget	LTICL
14	Social Welfare	CSR Budget	LTICL
15	Corporate Social Responsibility	CSR Budget	LTICL
16	Public Complaint on project activity	CSR Budget	LTICL
17	Digital Photographic recording	0	LTICL
Overall Estimated Yearly Budget for Implementation of EMP (Abandonment Phase) = 3000			

Table.: LTICL Projected Budgets and Responsibilities for EMP Implementation

Sr.	Activity	Projected Budget	Responsibility
A	Development Phase		
1	Approving overall budget in yearly basis throughout the project period (development phase, operation phase, abandonment phase) for the implementation of EMP for the project activities	5000 - 10000	MD/Director
	Reserving separate CSR Budget as part of the implementation of project EMP	2 % of the annual net income	MD/Director
	Implementation of Environmental Management Plan	Project Period	EMP Implementation Team
	Environmental and social related issues to Include in project operation meeting for necessary solution	Monthly	Project Manager
	Project involved Environmental conservation activities and corporate social responsibility activities performance record to display at project area notice board	Monthly	Project Manager
	Register/record energy and natural resources consumption	Monthly	Environmental Coordinator
	Register/record raw material used in development	Monthly	Environmental Coordinator
	Register/record machinery & equipment used in facility installation	Monthly	Project Manager
	Ensure all designs and facility installation is as per proposal	Once before job done	Project Manager
	Check & record development phase activity progress together with EMP Implementation	Monthly	Project Manager
	Noise: Check to ensure all alternative generators are sound proof system	Once before installation	Project Manager
	Vibrations: check to ensure no high vibration source on site	6 Monthly	Project Manager

Sr.	Activity	Projected Budget	Responsibility
	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.): Use low Sulphur content type Diesel Fuel for the alternative generators, and Maintain maximum efficiency level of generators	Monthly Monthly	Project Manager/Maintenance Team Maintenance
	Odor: check to ensure no obvious odor source at project area	Monthly	Factory Manager/ Environmental Coordinator
	Implement project waste management system	Project Period	Project Manager
	Waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL environmental coordinator	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team
	Hazardous waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL environmental coordinator	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team

Sr.	Activity	Projected Budget	Responsibility
	Wastewater and storm water: Inspection of the domestic wastewater drains	Weekly at wet season / Monthly at dry season	Project Manager/ Environmental Coordinator
	Chemicals: Setting designated Chemical Storage Area with emergency wash/shower, Check chemical storage area Chemical handling training for relevant staff	Once Monthly Once	MD/Director Project Manager Project Manager
	Water Quality: Install water treatment system prior to dispose to drain	Once	Director/ Project Manager
	Soil (erosion and sedimentation): Install concrete drainage system	Once	Director/ Project Manager
	Biodiversity: Encourage all staff through environmental education talks to involve in environmental conservation	Yearly	Project Manager
	Occupational and Community Health: Collaborate with Bago Township Medical Officer to ensure staffs and local people getting necessary health support from project proponent	Yearly	Director/ Project Manager
	Safety: Provide personal protective equipment (PPE) for staff, install enough lighting, ventilation system, fire safety system, warning signs, create safe worksite, Conduct safety briefing prior to start the job Maintain all Safety Gears to ensure all are in operational level, replace with good ones if it's not in good condition to use.	Once Monthly Monthly	Director/ project Manager Project Manager Project Manager
	Cultural Heritage: Report relevant authority if historical valuable items found during digging ground within project area	When digging ground	Director/ Project Manager
	Corporate Social Responsibility: To support local community development activities with reserved CSR budget in collaboration with local authority	Yearly	Director/Factory Manager

Sr.	Activity	Projected Budget	Responsibility
	Public Complaint on project activity: To settle all conflict using win-win method	When receiving public complaint	Director/Project Manager
	Fire Safety & Emergency Response: Install fire safety & emergency response system	Once installation	Director/Project Manager
	Inspect in collaboration with authority of Township Fire Services Department	Yearly	Project Manager
	Conduct Drill/exercise how to response if there is in emergency (fire, etc.,)	6 monthly	Project Manager and Staff
	Natural Disaster Management: To collaborate with relevant Township authorities: General Administration, and Fire Services, etc.,	Project Period	Factory Manager
	Conduct Drill/exercise how to manage if there is natural disaster (earthquake, etc.,)	Yearly	Director/Project Manager
	Implement project waste management system	Project Period	Project Manager
	Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite	Daily	Maintenance Team
	Collected waste handover to verified waste collector for proper disposal.	Twice a week	Maintenance Team
	Register/record waste generated as per its type and signed by LTICL and receiver.		Maintenance Team
	Compiled recorded waste generated within a month and report to LTICL environmental coordinator		
	Inspection of the domestic wastewater drains	Weekly at wet season / Monthly at dry season	Project Manager/ Environmental Coordinator
	Inspection of General Waste Storage & Disposing Practices	Monthly	Project Manager/ Environmental Coordinator
	Digital Photographic Data Recording for Operations & Maintenance activities	Monthly	Project Manager/ Environmental Coordinator
	Digital Photographic Data Recording for Environmental & Social CSR activities	Monthly	Environmental Coordinator

Sr.	Activity	Projected Budget	Responsibility
	Audit of waste storage and disposal practices	3 Monthly	Project Manager/ Environmental Coordinator
	Audit of hazardous waste tracking documentation	3 Monthly	Project Manager/ Environmental Coordinator
	Internal Environmental audit on EMP Implementation	6 Monthly	MD/Director & Third Party
	LTICL Management Review on EMP implementation	Annually	MD/Director & Project Manager
	Update Environmental Management Plan based on outcome from LTICL Management Review and Instruction from relevant Authority	2 Yearly / (or) defined by Authority	MD/Director & Third party external
	Environmental Awareness Poster Disclosure	Monthly/ 3 Monthly	Project Manager/ Environmental Coordinator
	Compilation of registered/recorded Environmental data	Monthly	Factory Manager/ Environmental Coordinator
	Provide compiled environmental data for Project Development Phase EMP Performance Report	Monthly	Factory Manager/ Environmental Coordinator
	Prepare Project Development Phase EMP Performance Report	Once after Development Phase	Project Manager/ Environmental Coordinator
	EMP Performance Reporting to ECD	6 Monthly	Project Manager/ Environmental Coordinator
	External Official Environmental Audit on EMP Implementation	To be advised by relevant authority	Relevant Authority
B	Operation Phase		

Sr.	Activity	Projected Budget	Responsibility
	Setting Internal Environmental Management Plan Implementation Team to be led by Factory Manager	Once in Project Period and update as necessary	MD/Director
	Reserving EMP Overall Budget for the implementation of project EMP	Yearly	MD/Director
	Implementation of Environmental Management Plan	Project Period	Factory EMP Implementation Team
	Environmental and social related issues to Include in project operation meeting for necessary solution	Monthly	Factory Manager
	Project involved Environmental conservation activities and corporate social responsibility activities performance record to display at project area notice board	Monthly	Factory Manager
	Register/record energy and natural resources consumption	Monthly	Environmental Coordinator
	Register/record raw material received and final products	Weekly	Environmental Coordinator
	Check & record operation phase activity progress together with EMP Implementation	Monthly	Factory Manager
	Noise: Check to ensure all alternative generators are sound proof system	Before installation	MD/Director/Factory Manager
	Vibrations: check to ensure no high vibration source on site	6 Monthly	Factory Manager
	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.): Use low Sulphur content type Diesel Fuel for the alternative generators, and Maintain maximum efficiency level of generators	Monthly Monthly	Factory Manager/Maintenance Team Maintenance
	Odor: check to ensure no obvious odor source at project area	Monthly	Factory Manager/ Environmental Coordinator
	Implement project waste management system	Project Period	Factory Manager

Sr.	Activity	Projected Budget	Responsibility
	Waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL environmental coordinator	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team
	Hazardous waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL environmental coordinator	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team
	Wastewater and storm water: Inspection of the domestic wastewater drains	Weekly at wet season / Monthly at dry season	Factory Manager/ Environmental Coordinator
	Chemicals: Setting designated Chemical Storage Area with emergency wash/shower, Check chemical storage area Chemical handling training for relevant staff	Once Monthly Once/Yearly	MD/Director Factory Manager Factory Manager
	Water Quality: Install water treatment system prior to dispose to drain	Once	Director/Factory Manager
	Soil (erosion and sedimentation): Install concrete drainage system	Once	Director/Factory Manager

Sr.	Activity	Projected Budget	Responsibility
	Biodiversity: Encourage all staff through environmental education talks to involve in environmental conservation	Yearly	Factory Manager
	Occupational and Community Health: Collaborate with Bago Township Medical Officer to ensure staffs and local people getting necessary health support from project proponent	Yearly	Director/Factory Manager
	Safety: Provide personal protective equipment (PPE) for staff, install enough lighting, ventilation system, fire safety system, warning signs, create safe worksite, Conduct safety briefing prior to start the job Maintain all Safety Gears to ensure all are in operational level, replace with good ones if it's not in good condition to use.	Once Monthly Monthly	Director/Factory Manager Factory Manager Factory Manager
	Cultural Heritage: Report relevant authority if historical valuable items found during digging ground within project area	When digging ground	Director/Factory Manager
	Employment and Training: Ensure to appoint all staff and provide technical training and personal development training in accordance with Myanmar Labour Law	Project Period	Director/Factory Manager
	Social Welfare: Ensure to create social welfare programs such as bonus, yearly increment, annual dinner party, health care of staff and its family member, education support to staff and its family member, etc.,	Project Period	Director/Factory Manager
	Corporate Social Responsibility: To support local community development activities with reserved CSR budget in collaboration with local authority	Yearly	Director/Factory Manager
	Public Complaint on project activity: To settle all conflict using win-win method	When receiving public complaint	Director/Factory Manager
	Fire Safety & Emergency Response: Install fire safety & emergency response system	Once installation	Director/Factory Manager

Sr.	Activity	Projected Budget	Responsibility
	Inspect in collaboration with authority of Township Fire Services Department	Yearly	Factory Manager
	Conduct Drill/exercise how to response if there is in emergency (fire, etc.,)	3 monthly	Factory Manager and Staff
	Natural Disaster Management: To collaborate with relevant Township authorities: General Administration, and Fire Services, etc.,	Project Period	Factory Manager
	Conduct Drill/exercise how to manage if there is natural disaster (earthquake, etc.,)	Yearly	Director/Factory Manager
	Implement project waste management system	Project Period	Factory Manager
	Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite	Daily	Maintenance Team
	Collected waste handover to verified waste collector for proper disposal.	Twice a week	Maintenance Team
	Register/record waste generated as per its type and signed by LTICL and receiver.		Maintenance Team
	Compiled recorded waste generated within a month and report to LTICL environmental coordinator		
	Inspection of the domestic wastewater drains	Weekly at wet season / Monthly at dry season	Factory Manager/ Environmental Coordinator
7	Inspection of General Waste Storage & Disposing Practices	Monthly	Factory Manager/ Environmental Coordinator
8	Digital Photographic Data Recording for Operations & Maintenance activities	Monthly	Factory Manager/ Environmental Coordinator
	Digital Photographic Data Recording for Environmental & Social CSR activities	Monthly	Environmental Coordinator
10	Audit of waste storage and disposal practices	Quarterly	Factory Manager/ Environmental Coordinator

Sr.	Activity	Projected Budget	Responsibility
11	Audit of hazardous waste tracking documentation	Quarterly	Factory Manager/ Environmental Coordinator
12	Internal Environmental audit on EMP Implementation	6 Monthly	MD/Director & Third Party
13	LTICL Management Review on EMP implementation	Annually	MD/Director & Factory Manager
14	Update Environmental Management Plan based on outcome from LTICL Management Review and Instruction from relevant Authority	2 Yearly / (or) defined by Authority	MD/Director & Third party external
15	Environmental Awareness Poster Disclosure	Monthly/ 3 Monthly	Factory Manager/ Environmental Coordinator
	Compilation of registered/recorded Environmental data	Monthly	Factory Manager/ Environmental Coordinator
	Provide compiled environmental data for EMP Performance Reporting to ECD	Monthly	Factory Manager/ Environmental Coordinator
	Prepare Project Operation Phase EMP Performance Report	6 Monthly	MD/Director & Third Party external
	Project Operation Phase EMP Performance Reporting to ECD	6 Monthly	MD/Director/Factory Manager/ Environmental Coordinator
	External Official Environmental Audit on EMP Implementation	To be advised by relevant authority	Relevant Authority
C	Abandonment Phase		

Sr.	Activity	Projected Budget	Responsibility
	Setting Internal Environmental Management Plan Implementation Team to be led by Factory Manager	Once in Project Period and update as necessary	MD/Director
	Reserving EMP Overall Budget for the implementation of project EMP	Yearly	MD/Director
	Implementation of Environmental Management Plan	Project Period	Factory EMP Implementation Team
	Environmental and social related issues to Include in project operation meeting for necessary solution	Monthly	Factory Manager
	Project involved Environmental conservation activities and corporate social responsibility activities performance record to display at project area notice board	Monthly	Factory Manager
	Register/record energy and natural resources consumption	Monthly	Environmental Coordinator
	Register/record raw material received and final products	Weekly	Environmental Coordinator
	Check & record operation phase activity progress together with EMP Implementation	Monthly	Factory Manager
	Noise: Check to ensure all alternative generators are sound proof system	Before installation	MD/Director/Factory Manager
	Vibrations: check to ensure no high vibration source on site	6 Monthly	Factory Manager
	Air Quality (SO ₂ , NO _x , PM ₁₀ , PM _{2.5} , etc.): Use low Sulphur content type Diesel Fuel for the alternative generators, and Maintain maximum efficiency level of generators	Monthly Monthly	Factory Manager/Maintenance Team Maintenance
	Odor: check to ensure no obvious odor source at project area	Monthly	Factory Manager/ Environmental Coordinator
	Implement project waste management system	Project Period	Factory Manager

Sr.	Activity	Projected Budget	Responsibility
	Waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL environmental coordinator	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team
	Hazardous waste: Implement project waste management system Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite Collected waste handover to verified waste collector for proper disposal. Register/record waste generated as per its type and signed by LTICL and receiver. Compiled recorded waste generated within a month and report to LTICL environmental coordinator	Daily Twice a week	Maintenance Team Maintenance Team Maintenance Team
	Wastewater and storm water: Inspection of the domestic wastewater drains	Weekly at wet season / Monthly at dry season	Factory Manager/ Environmental Coordinator
	Chemicals: Setting designated Chemical Storage Area with emergency wash/shower, Check chemical storage area Chemical handling training for relevant staff	Once Monthly Once/Yearly	MD/Director Factory Manager Factory Manager
	Water Quality: Install water treatment system prior to dispose to drain	Once	Director/Factory Manager
	Soil (erosion and sedimentation): Install concrete drainage system	Once	Director/Factory Manager

Sr.	Activity	Projected Budget	Responsibility
	Biodiversity: Encourage all staff through environmental education talks to involve in environmental conservation	Yearly	Factory Manager
	Occupational and Community Health: Collaborate with Bago Township Medical Officer to ensure staffs and local people getting necessary health support from project proponent	Yearly	Director/Factory Manager
	Safety: Provide personal protective equipment (PPE) for staff, install enough lighting, ventilation system, fire safety system, warning signs, create safe worksite, Conduct safety briefing prior to start the job Maintain all Safety Gears to ensure all are in operational level, replace with good ones if it's not in good condition to use.	Once Monthly Monthly	Director/Factory Manager Factory Manager Factory Manager
	Cultural Heritage: Report relevant authority if historical valuable items found during digging ground within project area	When digging ground	Director/Factory Manager
	Employment and Training: Ensure to appoint all staff and provide technical training and personal development training in accordance with Myanmar Labour Law	Project Period	Director/Factory Manager
	Social Welfare: Ensure to create social welfare programs such as bonus, yearly increment, annual dinner party, health care of staff and its family member, education support to staff and its family member, etc.,	Project Period	Director/Factory Manager
	Corporate Social Responsibility: To support local community development activities with reserved CSR budget in collaboration with local authority	Yearly	Director/Factory Manager
	Public Complaint on project activity: To settle all conflict using win-win method	When receiving public complaint	Director/Factory Manager
	Fire Safety & Emergency Response: Install fire safety & emergency response system	Once installation	Director/Factory Manager

Sr.	Activity	Projected Budget	Responsibility
	Inspect in collaboration with authority of Township Fire Services Department	Yearly	Factory Manager
	Conduct Drill/exercise how to response if there is in emergency (fire, etc.,)	3 monthly	Factory Manager and Staff
	Natural Disaster Management: To collaborate with relevant Township authorities: General Administration, and Fire Services, etc.,	Project Period	Factory Manager
	Conduct Drill/exercise how to manage if there is natural disaster (earthquake, etc.,)	Yearly	Director/Factory Manager
	Implement project waste management system	Project Period	Factory Manager
	Collect waste according to waste type (general solid waste, hazardous waste, etc.,) by using separate waste bin at set collection point for temporary store onsite	Daily	Maintenance Team
	Collected waste handover to verified waste collector for proper disposal.	Twice a week	Maintenance Team
	Register/record waste generated as per its type and signed by LTICL and receiver.		Maintenance Team
	Compiled recorded waste generated within a month and report to LTICL environmental coordinator		
	Inspection of the domestic wastewater drains	Once before closeout of project operation	Factory Manager/ Environmental Coordinator
	Inspection of General Waste Storage & Disposing Practices	Once before closeout of project operation	Factory Manager/ Environmental Coordinator
	Digital Photographic Data Recording for Operations & Maintenance activities	Monthly	Factory Manager/ Environmental Coordinator
	Digital Photographic Data Recording for Environmental & Social CSR activities	Monthly	Environmental Coordinator
	Inspection of General Waste Storage & Disposing Practices	Once before closeout of project operation	Factory Manager/ Environmental Coordinator
	Audit of waste storage and disposal practices	Once before closeout of project operation	Factory Manager/ Environmental Coordinator

Sr.	Activity	Projected Budget	Responsibility
	Audit of hazardous waste tracking documentation	Once before closeout of project operation	Factory Manager/ Environmental Coordinator
	Internal Environmental audit on EMP Implementation	Once before closeout of project operation	MD/Director & Third Party
	LTICL Management Review on EMP implementation	Once before closeout of project operation	MD/Director & Factory Manager
	Provide compiled environmental data for the preparation of Abandonment Phase EMP Performance Report	Once before closeout of project operation	Factory Manager/ Environmental Coordinator
	Prepare Project Abandonment Phase EMP Performance Report	Once before closeout of project operation	MD/Director & Third Party external
	Project Abandonment Phase EMP Performance Reporting to ECD	Once before closeout of project operation	MD/Director/Factory Manager/ Environmental Coordinator
	External Official Environmental Audit on EMP Implementation	To be advised by relevant authority	Relevant Authority

Project Component's Environmental and Social Commitment

Environmental and Social Commitments

LTICL will commit environmental and social as mentioned in the Environmental and Social Policy. There will be separate budget allotted for the implementation in environmental management plan of LTICL throughout project period. Initial Environmental budget is estimated 3000 USD/year and budget allotment will be reviewed yearly basis to suit with requirements.

In addition, LTICL has undertaken to spend 2% of annual net profit in CSR program. The proposed project area is placing within Industrial Zone, Bago Region and can be considered as partially developed based on current living standard status. LTICL plans to cooperate with local community as part of CSR programs to be supported by LTICL is as below:

- Providing in Education Sector by funding in school library, stationary, exercise book, etc., for the students from local community
- Providing in health care service sector by funding in clinic, doctor & medicine for the patients from local community

Environmental Management Plan

LTICL undertake to commit Environmental Management Plan for the Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Project Operation which complies with Myanmar Laws & Regulations, and Procedures & Standing Instructions.

Guidelines

LTICL undertake to commit Environmental Management Plan for the Proposed Project Operation complies with National Environmental Quality Emission Guideline out of enacted Myanmar Laws & Regulations, and Procedures & Standing Instructions, MONREC (former MOECA). There will have other procedures and guidelines in terms of interest in

relevant area such as guidelines in consumer electronic processing & production, social and cultural, labor, regional, industrial, etc.

The LTICL Fire & Emergency Response Plan has been made available which compliance with Fire Fight Department require the reporting of fire.

Environmental Management and Monitoring Plan

This section was summarized for the environmental management plan for the proposed project and implementation. Environmental management and monitoring plan has been organized with four main parts: -

- **Impact Assessment and Mitigation Measure** - prepare Environmental Management Plan for the proposed project by environmental experts;
- **Environmental Management Plan** – perform environmental conservation activities to minimize impacts which may arise from the proposed project operation activities by the operator;
- **Auditing & Inspection EMP Performance** – audit & inspect EMP performance to ensure EMP performance of LTICL is acceptable which complying with Myanmar laws & regulations, and procedures & standing instructions by relevant authority; and
- **Reviewing and updating of EMP** – to update EMP periodically for the applicable of EMP to suit with changes in operation activity or changes in Myanmar laws & regulations, and procedures & instructions

In the impact assessment, a number of potentially significant impacts were identified. For each of these project activities, mitigation measures were defined to prevent and/or reduce the likelihood or magnitude of impacts and/or to limit the extent of an impact if one does occur. The proposed mitigation measures take into account applicable guidelines, industry practices, expert judgment, design techniques, and operational control.

In addition, environmental monitoring measures were designed to monitor the environment and project activities. The purpose of these monitoring measures is: to evaluate the effectiveness of the mitigation measures that will be put in place; to assess compliance with Myanmar legislation, guidelines and standards; and to compare environmental conditions after implementation of the project to environmental baseline conditions to document possible change and/or impact. Detailed summarized planning and implementation of environmental management plan based on outcome from mitigation measure for the proposed project has been presented in previous Section – 5.

Planning

Environmental Monitoring Plans, which detail tasks to be undertaken and monitoring to be conducted as part of achieving objectives and targets, with frequency and responsibility, has been prepared and any further improvement or modification will be generated by the Factory Manager in line with daily operation. A Monitoring Plan is presented in Appendix B.

Monitoring tasks could, in the future, be incorporated into the Maintenance Management System, which puts together daily work instructions, and was planned for implementation.

A Waste Management Plan has been partially developed by LTICL. This should incorporate auditing and waste tracking procedures, which have been developed as part of the EMP.

The only Emergency Preparedness and Response Plan available for review were: the Emergency Response Manual, which had little relevance to operations, and the Oil Spill Contingency Plan, which referred to environmental measures. The level of implementation of these plans needs to be assessed.

Objectives

The principal objective of the EMP is to develop an effective management tool that will ensure that the diverse range of management and monitoring tasks and activities originally defined in the Environmental Management Plan can be systematically and efficiently performed. The EMP will allow environmental performance trends to be monitored and problem areas identified. This will assist LTICL to adopt a pollution prevention approach to environmental management, thereby potentially avoiding environmental damage, costly remedial action, and adverse public reaction.

The outcome will:

- Assure conformance with the Environmental Policy and specifically the dual objectives of pollution protection and continual environmental improvement;
- Demonstrate such conformance to others;
- Ensure the efficient and effective use of resources;
- Seek certification/registration of its EMP by an external organization, should this be deemed desirable.

Development and implementation of an EMP is an evolving process. The first stage, as described in this document, represents a formalization of the EMP initiated during the takeover and upgrading phase on the existing facility and location from the land owner which preferred to be used for project, and modified to take account of the fact that the project is moving into a normal operations phase.

This stage of the EMP focuses on those activities that were initiated during the upgrading phase and those operational activities that can be managed. These can be summarized as:

- Hazardous and non-hazardous waste management;
- Effluent water treatment and discharge;
- Storage and handling of fuels and chemicals;
- Modification and Maintenance of the facility;
- Monitoring of air emissions;

- Environmental noise monitoring;

Subsequent stages will provide additional detail and allow greater external scrutiny and public disclosure.

The structure and hence key elements of this document conform to the ISO 14001. The EMP described herein therefore forms the base upon which an internationally certifiable EMP can be developed.

The following table summarizes the areas where additional detail and resources will need to be applied to achieve this international status, should this be desired. It is understood that LTICL's initial goal is to reach the Corporate-level standard within 12 months, at which time it will evaluate the merits of achieving ISO 14001 compliance.

Table 7.6.6.1: Comparative Assessment: LTICL EMP and ISO 14001

Element of the Environmental Management System	Specific requirements under ISO 14001	LTICLEMP (Jun 2021)
Policy	Appropriate commitment to continual improvement and pollution prevention Commitment to compliance with legislation Provides framework for objectives and targets Documented and communicated to all employees Publicly available	Yes* Yes* Yes* Yes* Yes*
Planning		
-Environmental Aspects	Maintain procedures for identifying environmental aspects of activities Ensure aspects related to significant impacts are considered in setting environmental objectives	Yes Yes
-Legal and Other Requirements	Maintain a procedure to identify applicable requirements	Yes
-Objectives and Targets	Document environmental objectives Review objectives and targets Must be consistent with Policy (local/corporate)	Yes No Yes
-Environmental Management Programs	Establish and maintain programme for achieving objectives and targets, designating a) responsibilities, b) method and time frame	Yes
Implementation and Operation		
-Structure and Responsibility	Document and communicate roles and responsibilities	Yes

	Management to provide resources required for implementation of EMP Appoint specific representative(s) responsible for ensuring implementation, and reporting on performance	Partial Yes
-Training awareness and competence	Identify training needs Ensure appropriate training received Make employees aware of environmental impacts, and their roles and responsibilities Ensure competency	Yes No Yes No
-Communication	System for internal communication on environmental issues System for external communication on environmental issues Consider and document whether to communicate environmental impacts to external parties	Yes Yes No
-Environmental Management System documentation	Maintain documentation of the core elements of the EMP, and related documents	Partial
-Document Control	Maintain procedures for document control to ensure that documents: a) can be located b) are periodically reviewed c) are readily available d) obsolete documents removed e) are dated, identifiable, and maintained for a specified period	No
-Operational Control	Identify operations associated with significant environmental aspects	Yes Yes

	Establish and maintain procedures for operations which could result in significant impact Stipulate operating criteria Establish procedures relating to the use of goods and services by LTICL, which have associated significant environmental impacts, and communicate these procedures to suppliers	Yes No
-Emergency preparedness and response	Establish procedures to respond to accidents and emergencies Review and revise procedures Periodically test procedures	No No No
Checking and Corrective Action		
- Monitoring and measurement	Maintain monitoring procedures and record results Calibrate monitoring equipment and maintain records Establish documented procedure to evaluate compliance with environmental legislation	Yes No Yes
- Non-conformance and corrective and preventive action	Establish procedures for investigating non-conformance and undertaking corrective action Ensure corrective action is of the appropriate scale Implement and record changes required to the procedure	Yes Subject to audit Yes
-Record	Maintain procedures for the identification, maintenance and storage of environmental records Establish and record retention times for environmental records	No No

-EMP audit	Establish a programme and procedures for EMP audits	Yes
Management Review	Conduct and document periodic EMP audits by top management Management to address the need for change to the EMP, based on the findings of the audit	No No

**A draft Environmental Policy has been prepared as part of this EMP but will require endorsement by LTICL Management.*

Document Control

The guiding principles for document control are as follows:

- They can be located;
- They are periodically reviewed, revised as necessary and approved for adequacy by authorized personnel;
- The current versions of all relevant documents are available at all locations where operations essential to the effective functioning of the EMS are performed;
- Obsolete documents are promptly removed from all points of issue and points of use, or otherwise assured against unintended use; and
- Any obsolete document retained for legal and/or knowledge preservation purposes are suitably identified.

Official documents forming part of the EMP, together with their storage location and the person responsible for their maintenance and upkeep, are summarized in Below Table.

Table: Document and Data Control

DOCUMENT	MAINTENANCE RESPONSIBILITY & PRINCIPAL STORAGE LOCATION	DISTRIBUTION
EMP	Managing Director	Director Manager HSE Coordinator
Individual Roles & Responsibilities	Manager	All individuals with responsibilities for providing input into the EMP
Monthly Monitoring Plan	Maintenance Engineer/Technician	Manager Assistant Manager
Data Record	Maintenance Engineer/Technician	Manager
Corrective Action Record	Maintenance Engineer/Technician	Manager
Environmental Data File	Maintenance Engineer/Technician	N/A
Waste Disposal Inventory	Maintenance Engineer/Technician	Manager Assistant Manager
Waste Disposal Manifest	BTDC (Yangon) Materials Logistics Controller	Maintenance Engineer
Environmental Site Audit	Manager	Managing Director Director(s) Assistant Manager

		Maintenance Engineer
EMP Audit	Managing Director	Director(s) Manager
Complaints Register	Maintenance Engineer / Assistant Manager	Managing Director Manager
Incidents Report	Maintenance Engineer / Assistant Manager	Managing Director Manager

All documents will be dated (with dates of revisions), referenced by the descriptors outlined in the above table, and maintained as hard copy in a ring-backed file as a minimum (except the Photographic Database) and as an electronic copy as appropriate. Sample documents for EMP are presented in Appendix A. All environmental documents are to keep according to respective retention period defined by the authority.

Environmental Records

Environmental Data Records are listed below in below Table.

Table: List of Environmental Data Record for the proposed project

Activity	Monitoring	Data Record Required
LTICL		
1. Noisy Operations	1. Quarterly monitoring at the nearest residences to the Site. Initially, monitoring will involve observations only, to determine if noise is audible at the nearest residences at day and night time. Monitoring should be conducted during operation. If noise is audible, more detailed monitoring may be required	The level of audible noise from the operations at the nearest residences
2. Air emission	2. Air quality monitoring from established site	The air emission from the operation at established site
3. Usage of domestic water	3.(a) Water quality monitoring 3.(b) Domestic water consumption quantity monitoring	The quality & quantity of domestic water usage from established water sources
4. Discharge of domestic wastewater	4. Weekly checking of the drain way & septic tank	Condition of drain way & septic tank
5. Disposal of general solid waste and hazardous waste	5A. Audit of waste storage and disposal practices every 6 months 5B. Audit of hazardous waste tracking documentation every three months	Number of non-compliances with waste management plan identified during the audit
6. Operation of standby diesel generators for emergency power supply	6. Back-calculate estimated emissions, based on diesel usage, using E&P Guidelines, every year	Estimated emissions per year

7. Operation works activities	Maintain a photographic record of the length of the facility throughout the project period	Photos
8. Process fire	Keep a record of manmade fires in the proposed project area	Record
9. EMP Implementation	9.(a) Audit of Environmental Management Plan implementation by LTICL Management (internal) 9.(b) Inspection on EMP implementation by relevant authority (external)	Number of non-compliances with environmental management plan identified during the audit

EMP Implementation and Monitoring Procedures

In the development of the LTICL EMP, the following LTICL EMP Procedures were reviewed:

- Draft Safety Procedures – cover a range of environmental issues:
 - Water Source & Supply System
 - Power Source & Supply System
 - Fire Safety & Emergency Management Practice
 - Traffic Control & Security Practice
 - Public Recreational Area Allotment Practice
 - Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Housekeeping Practice
 - Waste Management Practice (Waste Handling, transportation and disposal)
 - General Solid Waste Disposal Practice
 - Sewage Wastewater Treatment System
 - Safety and Administration Practice
 - Health and Hygiene Procedures
 - Safe Working Procedures
 - Tools & Equipment
- Draft Operational Procedures for the Proposed Project.

It was identified that procedures are required for:

- Various monitoring and analysis tasks (including Environmental and Waste Auditing) (developed as part of the EMP)
- Taking Corrective Action (developed as part of the EMP)
- EMP auditing (developed as part of the EMP)
- Schedule for reviewing EMP periodically and revising EMP as necessary by LTICL Management Team and/or as per standing instruction by relevant authority (developed as part of the EMP)

Summary of EMP

This section sets out the actions/ mitigation measures that must be undertaken during Development. Mitigation measures are an integral part of environmental management, and may include both engineered design features, and a variety of monitoring and management practices.

In Section 5, some forms of actions or mitigation measures have been recommended for environmental impacts that have significance assessment of LOW, MEDIUM, HIGH and CRITICAL to ensure significant impacts are manage to acceptable level consistent with legislative requirements. No action or mitigation measures have been recommended for NEGLIGIBLE environmental impacts.

Emergency Plan

Inevitable Natural Disaster (such as cyclone and earthquake) can be happened in the Bago Region due to its geological condition and therefore preparedness of LTICL disaster management plan in collaboration with local disaster management committee is encouraged.

Inevitable Fire and other accident can also be happened in the proposed project area and its surrounding area due to dense living style around project area. LTICL has prepared

to response for fire & emergency events in collaboration with Bago Township Fire Services Department. (Annexure – 11)

EMP Implementation Program

The EMP Implementation Program developed as part of the Environmental Management Plan (EMP) are listed in below Table and details are presented in Appendix B.

Table: LTICL EMP Implementation Program

1	Noise Monitoring
2	Air quality Monitoring
3	Monitoring supply water quality, quantity, and storage system
4	Monitoring discharge water quality, quantity, and drain system
5	Monitoring Energy Consumption (Electricity Power, Fuel)
6	Monitoring General Solid Waste Generate, Storage & Disposing Practices
7	Monitoring number of Fire, Environmental & Social Accident, and Complaints
8	Digital Photographic Data Recording in Project Activities
9	Audit of supply water source & storage, wastewater treatment and disposing practices
10	Audit of energy source & fuel storage, and maintenance practices
11	Audit of waste storage and disposal practices
12	Audit of Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis housekeeping services and maintenance practices
13	Compilation of Project EMP Implementation Data for Reporting (Operation Team)
14	Project EMP Implementation Operation Team Meeting & Reporting (Management Team)
15	EMP Implementation Performance Audit (Management Team)
16	Management Team Review for EMP Implementation Performance Reporting (MONREC)
17	EMP Implementation Performance Audit (MONREC)
18	Update Environmental Management Plan based on outcome from LTICL Management Review and Instruction from relevant Authority (MONREC)

The Persons Identified for Implementation of the EMP

Project Component Team Capacity Building for EMP Implementation

The following personnel have been identified as key person as Project Team to the implementation of EMP:

- Managing Director – Responsible for environmental performance of LTICL
- Director –Responsible for effective implementation of the EMP across all operating units
- Manager – Management Champion for EMP
- Environmental Coordinator – EMP Champion, to be the key person involved in development and implementation of EMP

The Organizations Needed for Implementation of the EMP

Responsibilities of LTICL in the Implementation of EMP for Proposed Project

Organization and personnel resources required to effectively implement the EMP is presented detail in below Table.

Table: Roles and Responsibilities

Position	Role	Responsibility	Specific Tasks
LTICL Management			
Managing Director	Management Commitment	Promote commitment to EMP amongst all staff	Ensure EMP is on Management agenda and discussed where appropriate at weekly management meetings
Director	Business Unit responsibility for LTICL EMP Check on a) performance of LTICL EMP b) Environmental support requirements	Oversee implementation of EMP Internal EMP auditing Provide support to all personnel on technical environmental issues Maintain register of legal and other requirements, particularly changing requirements of Myanmar government	Conduct EMP auditing every 6 months Update register of legal and other requirements every 6 months Ensure EMP is discussed at weekly information exchanges Ensure sufficient resources are available for the successful implementation of the EMP Maintain a register of Environmental Complaints. Address environmental complaints

Position	Role	Responsibility	Specific Tasks
		Handle environmental complaints Provide input to contacts and logistics department on environmental aspects of purchasing decisions	
Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Operation Manager (TBA)	Operational Management Commitment	Promote implementation of EMP among all staff	Ensure EMP is on agenda and discussed at regular Operations meetings
Training Officer (TBA)	Training Officer	Conduct environmental awareness training and specific environmental training	Conduct environmental awareness training at induction Conduct environmental training annually,
LTICL Operations			
Operation Manager (TBA)	Site EMP coordinator	Ensure EMP is implemented by Factory personnel	Ensure Site EMP and environmental issues are discussed at regular Operations meetings Review environmental comments in weekly reports from the LTICL Supervisor
Assistant Operation Manager (TBA)	Commitment to EMP	Promote implementation of EMP Environmental reporting Oversee waste management	Discussion of EMP and environmental issues at regular staff meetings Weekly review of environmental comments from Environment officer, and summarize in report to LTICL Manager

Position	Role	Responsibility	Specific Tasks
Engineer Teams (TBA)	Monitoring and Reporting	Ensure monthly monitoring plan is completed Conduct environmental monitoring and reporting required as part of EMP: a) facility rehabilitation b) water quality c) noise d) check waste management practices	Complete monthly monitoring plan Monitoring / observation and recording of noise levels at the nearest residence, quarterly Visual inspection of drain ways weekly. Monitor along the length of the LTICL facility for condition of the developed works – every month in the dry season, and every 2 weeks in the wet season, or following a storm. Maintain a photographic record of the facility of the LTICL before and after the construction works. Measure and record quality in surface waters monthly. Keep a record of fires in the project area Check that record of waste being sent for disposal and review
Maintenance Personnel	Waste management	Record on dispose of waste	Record the nature and quantity of waste sent for proper disposal.

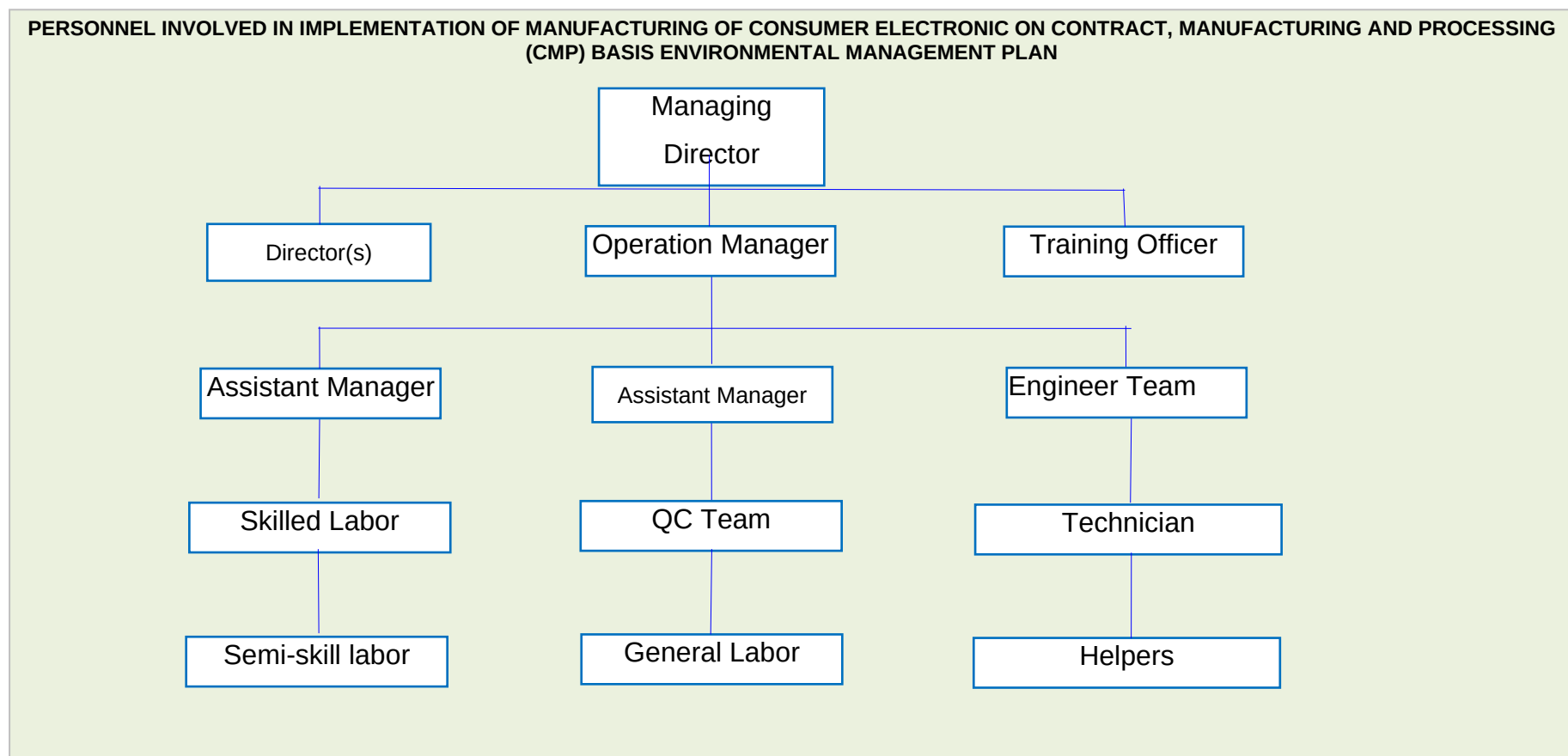


Figure 7.6.6: LTICL EMP Implementation Team Organogram

8. PUBLIC CONSULTATION AND DISCLOSURE

8.1 Methodology and Approach

Consultations with stakeholders on environmental issues have been taken up as an integral part of the process. These consultations provided inputs to the various sector specialists in identification of the felt needs of the communities, and the relevant stakeholders.

Methodology applied as personal meeting, formal meeting, and official meeting method, discussion method, interview method, visual inspection method, etc. to consult with relevant parties for the proposed project. The outputs of the consultation sessions are documented in on Stakeholder Consultations. Consultations held with the following stakeholders:

- Officials of Union Government Departments;
- Officials of Regional Government Departments;
- Local Authority of Township Government Department
- Contractors and employee, investors adjacent to factory and,
- Local Communities; adjacent/around of the project factory area.

8.1.1 Public Consultation and Public Participation Process

Public consultation is set to conduct with the purpose such as ability to present of information about the project to local community, being able to know about CSR and local development performance of the proposed project, being able to know the opinions of the local community on the proposed project, being able to know and participate in activities that will not impact the environment and monitoring etc., by consulting with local community around the project area. It is a mutually beneficial process as the project and the local community can establish a mutual understanding and relationship by continuing the implementation of commerce complaints, advices and grievances mechanism.

In conducting of public consultation process, consultation will be held with not only with the local communities but also with the regional relevant authorities within region of the proposed project by project proponent.

The consultation will be held by LTICL as follows:

- Invitation to local community, relevant authority and stakeholders around the proposed project, Invitation to interested parties to attend from the project website, Invitation by invitation method of standing poster/vinyl near the project for the public consultation.
- Presentation of proposed project information and Environmental Conservation Information at public consultation.
- Discussion with participants and if there are any requests, replying action points and responsibilities with action plans.
- Implementation of comments and suggestions of attendees, necessary action by preparing and recording meeting minutes.

8.2 Summary of Consultation Activities Undertaken

Consultation has been done separately with focus stakeholder during developing phase by LTICL to get permission for the proposed project with officials of Union Government Departments, Officials of Regional Government Departments, Officials of Township Government Departments, local community LTICL staff, and local community from adjacent/around the project factory area.

There will be cooperation between LTICL, local authority, and local community to find alternative ways of living such as farming, plantation, etc., as part of CSR program.

Local community development, corporate social responsibility (CSR) programs and more job creation for local community were also taken by the promoter.

8.3 Results of Consultation

Results of the public consultation and public participation processes, recommendations received from the public, and the Project Proponent's written responses to comments received during that process is present in this section.

There is no objection from the authorities of host country in general as well as no complaint received from staff regarding the proposed project operation while study team consulting during assessment period. Providing necessary skill factory training as of

voluntary nomination system for the eligible staff to develop local staff is built in as ongoing process throughout project period.

Any possible issues which may arise from public consultation, together with the findings of the baseline data gathering, have been considered when compiling the EMP.

Frequent requests for community development, corporate social responsibility (CSR) programs and local job creation were also included in consideration. MONREC provided details on the regulatory submission and approvals process. Relevant Industrial Zone Committee highlighted the proposed project to apply business by following complete project description and by using proper methods/system; which minimizes possible impacts; environment, social, & health; and to have proper fire protection system whilst conserving the environment and suggested to reserve 2% of annual net profit from the proposed project for CSR.

Project proponent will continue the implementation of Environmental Conservation activities, mutual relationship with neighboring local people will be established, commerce complaints and grievances mechanism.

8.4 Further Consultation

Public consultation with all stakeholder is scheduled to conduct in 2024 to share update information about proposed project and related environmental & social condition to get comment, advise, request, etc., from the public consultation.

8.5 Information Disclosure

The EMP implementation report will be disclosed to stakeholders, at proposed project factory and at LTICL office in Yangon. Environmental Management Plan implementation activities and CSR activities information sharing Notice Board will be erected at LTICL Factory. There is merit in expanding the scope of the Notice Board displays to include data generated through the project period on the environmental performance and CSR activities. This will have the effect of increasing staff awareness, interest and involvement in the environmental conservation & CSR program.

As per Myanmar regulations, this prepared EMP Report will be made available for public comment. The full report will be made available to the public in English and a non-technical summary will be made available in Myanmar.

Prepared EMP Implementation Report of LTICL Project (summary) will display at LTICL factory while full report can be found at Head Office. LTICL and ECD will include EMP info in their website respectively. Softcopy of EMP report and information of the proposed project will be available in LTICL and ECD website.

9. LTICL CSR Programs

Line Tech Industrial Company Limited's corporate social responsibility (CSR) activities based on the conviction that all business activities must take CSR into consideration. LTICL is vigilant in their enforcement of corporate ethics and compliance and constantly work to improve educational programs and strengthen our internal control system. At the same time, LTICL pursue initiatives related to quality management, environmental preservation, philanthropy and improved communication with all stakeholders.

The Proposed Project CSR program has been outlined in sponsoring educational sector, healthcare of local community staff by arranging clinic, providing necessary equipment & training, creating necessary recreation which relating to project throughout operational period without fail to promote CSR.

9.2 Budget for Implementation of CSR

LTICL has undertaken to spend 2% of annual net profit in CSR program. LTICL plans to cooperate with local community employee as part of CSR programs to be supported by LTICL is as below:

- Providing 25% in Education Sector for the education of local community employees from workshop
- Providing 25% in health care service sector by opening medical clinic for the healthcare of local community employee
- 50% for creating necessary recreations of factory employee's peace and harmony

LTICL will administer in implementation of proposed project CSR program activities in collaboration with local authority

10. Finding and Recommendation

The proposed project of Line Tech Industrial Company Limited is Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis project. All components in the project effectively avoid encroachment direct impact onto environmentally sensitive locations or protected area networks within Bago Township. To minimize environmental impacts associated with installation facilities, the site selection for these components has been done carefully. Environmental Management Plan Report of Proposed Project has been prepared in August 2024 which complying with instruction from MONREC. This Report will take into account in the implementation of the proposed project EMP based on the responses to this Report from relevant officials; ECD.

The proposed Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis project will support improvements in flow of local currency & foreign currency from its Consumer Electronics Manufacturing Sector. The benefits accrued due to the present project components are:

- i. Contract, Manufacturing, Processing (CMP) basis consumer electronics manufacturing and processing for overseas customers;
- ii. Utilization of certified imported machinery and enhancement of machinery efficiency in the business;
- iii. Creating more opportunity for local human resources to work Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Operation.
- iv. Enhancement of different level of skills of the International standard manpower by providing appropriate trainings to employee;
- v. Created more opportunity for local human resources to work at proposed Project; local personnel manpower 174 nos. will be appointed;
- vi. Direct income generation to the Union Government from operations service charges charged by relevant authorities has been accrued;

- vii. Myanmar nationals working at proposed Project will be able to acquire International Standard technical know-how from the operation. This will contribute to the personal capability of the national workforce in the long term;
- viii. From the standpoints of the Government of the Republic of the Union of Myanmar, personal income tax revenue will increase firstly and other tax revenue like income tax and commercial tax will also be generated;
- ix. Implementation of EMP for the proposed project can enhance environmental awareness for the local community as well as other investors to comply properly;
- x. 2% of net profit reserves from proposed Project yearly income will be used in CSR activities (such as funding in educational sector, healthcare of local community as well as staff and its family by arranging clinic & medical doctor, etc.) without fail which complying with existing laws & regulation of Myanmar.

While no further detailed EIA shall be required for the proposed components, the addressable of the following key provisions have been included in the ToR for the environmental coordinator of the LTICL:

- Site Management Plan to address impacts during development/construction;
- Waste Management Plan to address disposal of wastes generated during development/construction;
- Occupational Safety Plan to address occupational hazard during development/construction;
- Waste Management & Disposal Plan to address handling and management during development/construction;
- Fire Safety, Emergency Response, & Natural Disaster Management to address routine exercise & collaboration with Fire Services Department during operation

It is found that there is no activity identified having significant (HIGH and CRITICAL) adverse environmental impacts whilst one MEDIUM as of indirect environmental impact. They are either LOW or NEGLIGIBLE after taking into account specific engineering design features. However, in line with Myanmar

Environmental Law & Regulation requirement and good practices, a number of actions have been prescribed to ensure continual environmental management improvement.

There will be thirteen types of impacts due to the implementation of project activities that may have potential negative impact of the project. In thirteen types of impacts, it is found that six types are Negligible and Low impacts and one of them is Medium impact.

The significance of the environmental impacts shall be due to the normal operation of the LTICL relate to the activities and emissions associated with areas of rich environmental sensitivity. It is to be noted that the resultant potential impacts from these proposals can be offset through provision of proven mitigation measures by environmental management plan.

It is recommended that the mitigation measures included in the Environmental Management Plan (EMP) report be followed to avoid the identified impacts and risks which may occurred from the project operation activities.

11. Conclusion

The proposed components should proceed through to design and implementation, subject to mitigation measures and monitoring programs identified in the Environmental Management Plan, which has been updated during detailed design stage, and based on above recommendations. It may be emphasized that, owing to: (i) scale of activity, (ii) location of the proposed project component, and (iii) 'no environmental sensitivity' of the project, none of the components required to go through the process of IEE & EIA. It may be emphasized that the present EMP report, which identifies potential impacts and suggests appropriate mitigation measures, is sufficient enough to safeguard the environment.

It may be emphasized that the present EMP report, which identifies potential impacts and suggests appropriate mitigation measures, is sufficient enough to safeguard the environment. There are no significant adverse impacts, which are irreversible or may lead to considerable loss/destruction of environment, envisaged. Proven mitigation measures exist to minimize/mitigate the same. Mitigation measures for abandonment phase will prevent residual impacts from project activity. There will be no cumulative impact relating with project and other industrial activity and future town plan.

As such, an Environmental study has been conducted, and no significant adverse impact from normal operation activity has been envisaged, as mentioned above. To further mitigate as preventive measures any environmental impacts, an Environmental Management Plan (EMP) is included.

REFERENCES

1. General Administrative Department Bago Township Data (2019).
2. Ministry of Natural Resources and Environmental Conservation (MONREC), “Environmental Impact Assessment Procedure” December 2015.
3. Ministry of Natural Resources and Environmental Conservation (MONREC), “National Environmental Quality (Emission) Guidelines” December 2015.
4. AATA International, Inc. September 1998. Second Draft: Yetagun Environmental Impact assessment report for Premier Petroleum Myanmar.
5. EIA for M15 & YNE – 1 Exploration Drilling Wells, PCSB MO (2004)
6. EIA Offshore 2D Seismic Survey, At Blocks 44, 45, 50, & 51, Gulf of Mexico, Republic of Cuba, PCOSB (2006)

APPENDICES

APPENDIX A: EMP Documents

EMP DOCUMENTS

Individual Roles & Responsibilities
Corrective Action Request
Waste Disposal Manifest
Register of Approved Materials and Suppliers
Complaints Register
Environmental Incidents Record

ORGANIZATIONAL ROLES AND RESPONSIBILITIES:**EMP Management Team**

Position	Roles	Responsibility
Managing Director	Leader	Lead to ensure performance of EMP Implementation is in order according to Myanmar Laws & Regulations
Director	Member	Follow and Support MD's leadership to achieve set goals on implementation of EMP for proposed project
Factory Manager	Member	Follow and Support MD's leadership by strictly implementation of EMP to achieve set goals in proposed project

*Member list may subject to change according to LTICL

EMP Implementation Team

Position	Roles	Responsibility
Factory Manager	Leader	Lead to perform strictly implementation of EMP to achieve set goals in proposed project
Environmental Coordinator/ Factory Assistant Manager	Member	Coordinate between all levels in EMP Implementation related issues. Assist to perform strictly implementation of EMP to achieve set goals in proposed project
Office Services Team	Member	To take care EMP related office services
Maintenance Team	Member	To take care EMP related maintenance activity

*Member list may subject to change according to LTICL

INDIVIDUAL ROLES AND RESPONSIBILITIES:

Managing Director: EMP Management Team Leader

Frequency	Responsibility
Project Period	Reserving separate Budget in yearly basis for Implementation of EMP for proposed project throughout project period
DAILY	None
WEEKLY	Ensure EMP is on Management agenda and discussed where appropriate at project management meetings
MONTHLY	Monitor EMP performance Report and input management support
3 MONTHLY	Check environmental and waste management audit/inspection report and guide
6-MONTHLY	Organize for the Internal & external environmental audit team
ANNUALLY	Organize for the Internal & external environmental audit team
OTHER	Organize for Review and update existing LTICL EMP program as & when required by Myanmar laws & regulation, and procedures & standing instructions

Director(s): EMP Management Team Member(s)

Frequency	Responsibility
Project Period	Support EMP Implementation Team for effective Implementation of EMP for proposed project throughout project period
WEEKLY	Monitor LTICL EMP implementation and present where appropriate at weekly management meetings Ensure EMP is discussed at weekly information exchanges
MONTHLY	Monitor EMP performance and input management support to ensure sufficient resources are available for the successful implementation of the EMP Maintain a register of Environmental Complaints. Address environmental complaints
QUARTERLY	Participate in environmental and waste management audit/inspection and involve in reporting
6-MONTHLY	Conduct the Internal environmental audit Update register of legal and other requirements every 6 months
ANNUALLY	Involve for the Internal & external environmental audit team
OTHER	Participate in review and update existing LTICL EMP program as & when required by Myanmar laws & regulation, and procedures & standing instructions

Factory Manager: EMP Management Team Member & EMP Implementation Team Leader

Frequency	Responsibility
Project Period	Lead EMP Implementation Team for effective Implementation of EMP for proposed project throughout project period
DAILY	Ensure EMP is on agenda and discussed at regular Operations meetings
WEEKLY	Review environmental comments in weekly reports from the LTICL Assistant Manager Ensure EMP is discussed at weekly information exchanges
MONTHLY	Monitor EMP performance and input management support to ensure sufficient resources are available for the successful implementation of the EMP Maintain a register of Environmental Complaints. Address environmental complaints
QUARTERLY	Conduct in environmental and waste management audit/inspection and involve in reporting
6-MONTHLY	Participate the Internal environmental audit Update register of legal and other requirements every 6 months
ANNUALLY	Involve for the Internal & external environmental audit team
OTHER	Participate in review and update existing LTICL EMP program as & when required by Myanmar laws & regulation, and procedures & standing instructions

Assistant Manager/Environmental Coordinator: EMP Implementation Team Member

Frequency	Responsibility
Project Period	Coordinate between all levels in EMP Implementation related issues. Assist to perform strictly implementation of EMP to achieve set goals in proposed project
DAILY	Monitor EMP implementation and report for anomaly
WEEKLY	Compile environmental report based on data received from maintenance team and other sources. Report to Manager for discussion at nearest operation meeting.
MONTHLY	Manage and report EMP performance to ensure EMP is complying with set environmental standards. Compile environmental report based on data received from engineer team and other sources. Digital Photographic Data Recording for Project Operation activities. Report to Manager for discussion at nearest operation meeting.
QUARTERLY	Assist in environmental and waste management audit/inspection.
6-MONTHLY	Assist Internal & External Environmental Audit
ANNUALLY	Assist Internal & external environmental audit team
OTHER	Assist in review and update existing LTICL EMP program as & when required by Myanmar laws & regulation, and procedures & standing instructions Keep a record of manmade fires in the project area Maintain file of Data Records for the Proposed Project

Offices Services Team: EMP Implementation Team Member

Frequency	Responsibility
Project Period	Assist in implementation of EMP to achieve set goals in proposed project
DAILY	Monitor EMP implementation and report for anomaly.
WEEKLY	Visual inspection of drains where treated domestic wastewater is disposed from the Proposed Project. Check that record of waste being sent for disposal and review. Report to Assistant Manager for anomaly.
MONTHLY	Monitor and report EMP performance to ensure EMP is complying with set environmental standards. Complete monthly environmental monitoring plan. Compile environmental data records from project operation activities. Submit environmental data records to Assistant Manager for further perusal in data compilation and reporting. Digital Photographic Data Recording for Project Maintenance activities. Conduct environmental monitoring and reporting required as part of EMP with third party support: a) quality and quantity of domestic water and treated waste water disposing practice b) noise c) power consumption and diesel usage for standby generator d) general waste management practices
QUARTERLY	Monitoring / observation and recording of noise levels at the nearest residence. Conduct environmental monitoring and reporting required as part of EMP with third party support: a) water quality b) air quality
6-MONTHLY	Assist Internal & External Environmental Audit.
ANNUALLY	Assist Internal & external environmental audit team
OTHER	Assist from technical point of view as & when required by LTICL Management Team review on EMP

Maintenance Team: EMP Implementation Team Member

Frequency	Responsibility
Project Period	Assist in implementation of EMP to achieve set goals in proposed project
DAILY	None
WEEKLY	Record the nature and quantity of waste sent for proper usage / disposal. a) General solid waste – Kg (BTDC for disposal) b) Ladies' particular waste – Kg (BTDC for disposal) c) Canteen waste / Kitchen food waste – Kg (local farm for animal feeding) d) Sewage – Kg (BTDC for disposal)
MONTHLY	Record the nature and quantity of water for operation. a) domestic water – Gallon (and/or) Liter b) drinking water - Liter Record the nature and quantity of electricity power for operation. a) National grid line electricity – Power Unit b) Standby Diesel Generator electricity – Diesel Gallon Unit Compile all data as of monthly records and forward to supervisor.
QUARTERLY	None
6-MONTHLY	None
ANNUALLY	None
OTHER	None

CORRECTIVE ACTION REQUEST (CAR)	
CAR Completed By	DATE:
1. DESCRIPTION OF INCIDENT	
Describe Incident / Circumstance Requiring Corrective Action:	
Describe Corrective Action Taken	
Describe any further Corrective or Preventive Action Required:	
Responsible Person to Take Action	Target Date to Complete
2. CAR Forwarded to MANAGER:	DATE:
3. CAR Forwarded to Responsible Person for ACTION:	DATE:
4. Corrective / Preventive ACTION TAKEN	DATE:
Describe Corrective / Preventive Action Taken:	Completion Date:
Action Taken by Responsible Person: Name:	Sign"
5. MANAGER SIGN OFF	DATE

WASTE DISPOSAL MANIFEST		
COMPLETED BY:	LTICL	
DATE:		
ORIGIN OF WASTE:	MANUFACTURING OF CONSUMER ELECTRONIC ON CONTRACT, MANUFACTURING AND PROCESSING (CMP) BASIS/OTHER	
DESCRIPTION:	Waste Type, Quantity, Storage, Transport	
TYPE: Non-Hazardous (Household/Kitchen/Office/Canteen/Other) or Hazardous		
QUANTITY (Weight in Kg/Other)		
STORAGE (Designated Private Dump Area for General Waste Temporary Storage)		
TRANSPORT BY: (Vehicle Type, Vehicle Registration Number)		
	NAME	SIGNATURE
SENT BY:		
RECEIVED BY		

REGISTER OF APPROVED MATERIALS AND SUPPLIERS			
MATERIAL PARTICULAR		SUPPLIER	
LTICL OFFICIAL	POSITION	SIGNATURE	DATE
COMPLETED BY	LOGISTICS		
CHECKED BY	ASSISTANT MANAGER		
APPROVED BY	FACTORY MANAGER		

COMPLAINT REGISTER	
Completed By	Date:
Source of Complaint: (Environmental/Social/Other)	Date:
1. Description of Complaint:	
Follow Up Action by LTICL Responsible Person and Timing:	
Responsible Person to Take Action	Target Date to Complete
2. Forwarded to MANAGER:	DATE:
3. Forwarded to Responsible Person for ACTION:	DATE:
4. Follow-Up ACTION TAKEN	DATE:
Describe Follow-Up Action Taken:	Completion Date:
Action Taken by Responsible Person: Name:	Sign"
5. MANAGER SIGN OFF	DATE

ENVIRONMENTAL INCIDENT RECORD	
Completed By	Date:
INCIDENT LOCATION:(Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis/Other)	Date:
1. Description of Environmental Incident:	
Initial Impact:	
Recommendation to Take Action (Including Responsible Person and Timing):	
Responsible Person to Take Action	Target Date to Complete
2. Forwarded to MANAGER:	DATE:
3. Forwarded to Responsible Person for ACTION:	DATE:
4. Follow-Up ACTION TAKEN	DATE:
Describe Follow-Up Action Taken:	Completion Date:
Action Taken by Responsible Person: Name:	Sign”
5. MANAGER SIGN OFF	DATE

APPENDIX B: EMP IMPLEMENTATION SCHEDULE

ENVIRONMENTAL MANAGEMENT PLAN IMPLEMENTATION SCHEDULE

AUGUST 2024

Environmental Element	Monitoring Item	Location/Source	Frequency
Water consumption	Water consumption amount	Water Meter, Drinking water supplier bill	Monthly
Water Quality (Supply Water & Treated Wastewater)	Parameters guided by NEQEG	Supply Water Discharge Area Treated Wastewater Discharge Area	Monthly Yearly
Storm / rain water discharging from Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis operation	Monitor drains in dry season Monitor for blockage & overflow during rainy season	Project Area Project Area	Monthly Weekly
Noise	Record noise level, check compressor and generator	Operation area	Monthly
Air Quality	Dust (visual checking), check ventilation system NO ₂ , SO ₂ , CO, PM ₁₀ , and TSPM (EPAS HAZ Scanner)	Operation public area and office area Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis	Monthly Once a year

Environmental Element	Monitoring Item	Location/Source	Frequency
Waste (Non-hazardous and hazardous)	General Waste Storage & Disposing Practices Food Waste Storage & Disposing Practices Monitoring amount of sewage, wastewater treated by LTICL Lady's particular Waste Storage & Disposing Practices Record type and amount of chemical and hazardous materials (if applicable), disposal system	Factory area	Weekly/ Monthly Weekly Monthly Monthly Once a month
Energy consumption	Amount of electricity power consume from national grid	Government electricity meter unit usage bill	Monthly
Fuel consumption	Amount of fuel consume in operation (if applicable)	O & M activity, & standby diesel generator	Monthly
Environmental Awareness on Project activities	EMP implementation on O & M Activities CSR Programs sponsorship in local community's Health and educational care	Digital photo records of Project O & M Activities and CSR programs	Weekly/ Monthly/ Event
EMP Implementation Recording & Reporting	Project EMP Implementation Performance	Manufacturing of Consumer Electronic on Contract, Manufacturing and Processing (CMP) Basis Project Operation / LTICL	Weekly Monthly Quarterly 6 Monthly Yearly

APPENDIX C: EMP PROCEDURES

EMP PROCEDURES - LTICL

1	Monitoring Noise Level in the project area
2	Monitoring Air quality in the project area
3	Monitoring Domestic water quality for the project operations
4	Monitoring Domestic water amount consumed for the project operation
5	Monitoring Fuel and chemicals amount consumed for the project operations
6	Monitoring drains for project wastewater, domestic wastewater, and storm rain water
7	Monitoring waste management implementation
8	Digital recording on the project operation, maintenance, & CSR activities
9	Monitoring Fire & Natural Disaster occurred in the project area
10	Audit of waste storage and disposal practices
11	Audit of waste tracking documentation
12	Environmental Management Plan Implementation Audit
13	Corrective action procedure

1 – NOISE MONITORING

Responsible:	Maintenance Engineer with third party support
Frequency:	6 monthly
Equipment required:	Noise meter
Parameter	Specific defined by NEQEG limits for proposed project

Procedure:

The best time to observe noise is during backup generator operation, and then observe noise during normal manufacturing operations.

1. Measure noise level at noise source point in the factory area using noise meter for actual noise level.
2. Go to the closest area to the Proposed Project. If there is a cross-wind, go to the closest down-wind of the Proposed Project.
3. Listen for about 10 minutes to see if you can hear Proposed Project activities. And then measure noise level at outside of project area where you hear proposed project activities using noise meter for actual noise level.

This is best done at night; however, security or safety arrangements may need to be considered in observation of noise at night if project operate continuously.

Reporting:

Note the date, activities occurring at the Proposed Project (e.g. “Normal operations”), and record the absence or presence of noise on a Data Record sheet.

If noise is audible (beyond NEQEG limit), investigate and take corrective action. Note corrective action on Data Record.

2 – AIR QUALITY MONITORING (SO₂, NO_x, CO₂, PM_{2.5}, PM₁₀, O₃)

Responsible:	Maintenance Engineer with third party support
Frequency:	6 monthly
Equipment required:	EPAS-HAZ Scanner
Parameter	Specific defined by NEQEG limits for proposed project

Procedure:

The best time to observe ambient air quality is during operation.

1. Go to the area closest to the Proposed Project. If there is a cross-wind, go to the closest area down-wind of the Proposed Project.
2. Test for at least two days, one week day and one weekend (e.g., Friday and Saturday).

Reporting:

Note the date, activities occurring at the PROPOSED PROJECT (e.g., “Normal operations”), and record the data on a Data Record sheet.

If ambient air quality is audible (beyond NEQEG limit), investigate and take corrective action.

Note corrective action on Data Record.

3 – MONITORING OF WATER QUALITY IN THE PROJECT AREA

Responsible: Maintenance Engineer with third party support

Frequency: 6 monthly

Equipment required: pH & Temperature Meter (Field Type)/ (Bench Type), Clean (sterile) sampling container (to be tested at certified laboratory)

Parameter Specific defined by NEQEG limits for proposed project

Procedure:

1. Sterilize a sample container, or obtain a pre-sterilized container
2. Collect a sample from the identified point which including water disposing point after passing through wastewater treatment system.
3. Note the date and time of sample collection, and label the sample
4. Send the sample for the analysis in the certified laboratory, within the holding time
5. Record the results and report as / when necessary.

Reporting:

Record the time, date and results of the test on the data record. If the result does not meet the performance objective (beyond NEQEG limit), take corrective action.

4 – MONITORING DOMESTIC WATER CONSUMPTION IN THE PROJECT OPERATION

Responsible: Maintenance Engineer / Environmental Coordinator

Frequency: Daily / Weekly / Monthly

Equipment required: None

Procedure:

1. Register nature of water and record quantity in terms of identified category (i.e., drinking water, domestic water for toilet, cleaning. Etc.) daily/weekly basis.
2. Check the manufacture date and expiry date of drinking water
3. Collect a drinking water from the discharge point and store properly
4. Compile all daily/weekly water consumption registered record for the whole month at the end of the month for monthly reporting.

Reporting:

Report monthly water consumption in the project operation. If there is any anomaly situation happen, take corrective action.

5 – RECORD THE NUMBER OF FUEL (DIESEL)/ CHEMICALS CONSUMPTION

Responsibility: Maintenance Engineer Team / Environmental Coordinator

Frequency: Monthly

Equipment required: None

Procedure:

1. Review monthly reports.
2. Note the number of fuel (diesel) gallon / Chemicals (if any) unit consumed in the last month.

Reporting:

Record the number of diesel gallon consumed and the date on a Data Record. Note if consumed more than normal and any corrective action taken, on the Data Record.

6 – MONITORING DRAINS FOR PROJECT WASTEWATER, DOMESTIC WASTEWATER, AND STORM RAIN WATER

Responsible: Maintenance Engineer / Environmental Coordinator

Frequency: Weekly

Equipment required: None

Procedure:

1. Visual check the drains to ensure there is no blockage due to sediment / waste / hole caused by lack of regular cleaning, waste disposing into drain, mouse route, etc.,
2. Record the inspection date and update statue as it is (if condition is acceptable then state as acceptable, or if condition is observed as anomaly, then state clearly what need to take action in the report
3. After taken corrective action on anomaly, revisit the site and close out the non-conformance report

Reporting:

Record the time, date and results of the test on the data record. If the result does not meet the performance objective, take corrective action.

7 –MONITORING WASTE MANAGEMENT IMPLEMENTATION

Responsibility: Maintenance Team/Environmental Coordinator
 Frequency: Every two days (minimum) or as required
 Equipment: White colored bin, Fire Extinguisher
 Location: Designated BTDC Disposing Site

Procedure:

1. Inspect segregated waste to confirm conformance.
2. Pack segregated wastes (recyclable and non-recyclable) separately and properly.
3. Store recyclable wastes at dedicated areas and send to recycling points as soon as possible.
4. Send all non-hazardous and non-recyclable wastes to BTDC disposing site.
5. Arrange to send separately and properly packed ladies' particular waste for BTDC disposal site.
6. Arrange to send all usable food waste into local farm for animal feeding.
7. Check wastes to ensure all wastes are combustible prior to burn.
8. Record and report to Factory Manager for management commitment for compiled monthly reporting in end of the month as monthly basis.

Reporting:

Record the date of action, any non-conformances with good disposing practices, and corrective action taken on a data record.

Record and report to Farm Manager to track frequency and amount of waste disposed in correct method.

Waste Management Datasheet (Monthly)

No.	Date	Waste description	Estimated Weight (KG)	Disposal Method	In charge person	Remark
1						
2						
3						
4						
5						

Recorded by: Name –

Date: -

8 – DIGITAL RECORDING ON THE PROJECT OPERATION, MAINTENANCE, & CSR ACTIVITIES

Responsibility: Project Manager, Environmental Coordinator, & Maintenance Engineer

Frequency: Weekly/Monthly/Events

Equipment required: Digital Camera

Procedure:

1. Take digital photographic records on normal operation / maintenance activities weekly and also on function / event activities if any done by LTICL
2. Keeps all digital-photographic data record in both softcopy and hardcopy as those can be witnessed LTICL awareness on Environmental Conservation and CSR program complying with guideline and instruction from relevant government authorities.

Reporting:

Record the good practices as well as incorrect practice in project daily operation & maintenance activities and register in the digital record folder in the computer library as soft document and present in the environmental awareness briefing disclosure and display at factory notice board to enhance environmental conservation awareness by all personnel.

9 – RECORD THE MANMADE FIRE & NATURAL DISASTERS IN THE PROJECT AREA

Responsibility: Maintenance Team / Environmental Coordinator

Frequency: Monthly

Equipment required: None

Procedure:

1. Record if any manmade fire and natural disasters such as storm, floods, earthquake, etc., occurred in the project area.

Reporting:

Report recorded number of manmade fires and natural disasters occurred in the project area and the date on a Data Record.

10 – AUDIT OF WASTE STORAGE AND DISPOSAL PRACTICES

Responsibility: Factory Manager / Environmental Coordinator

Frequency: Monthly

Equipment Required: Checklist

Parameter Implementation of waste management system

Procedure:

1. Complete the attached Waste Audit Checklist
2. If there are any non-conformances, take corrective / preventive action.

Reporting:

Record the number of non-conformances, and any corrective action taken, on a Data Record

WASTE AUDIT CHECKLIST

AUDITOR:

DATE:

Tick Yes or No for each of the following:	Yes	No
1. Inspect temporary Storage areas for hazardous wastes (waste oil, medical waste, waste solvents and chemicals, empty drums or tins (which contained hazardous materials etc.) at the Proposed Project (NO = Non-conformance):		
Are the wastes labelled?		
Are the wastes segregated?		
Is the storage area free of spills?		
Is the storage area containing such that surface runoff cannot enter surface drains or creeks		
NUMBER OF NON-CONFORMANCES		
2. Randomly inspect general rubbish bins, and temporary storage areas for non-hazardous wastes (YES = Non-conformance):		
Are there any spills in the area?		
Are there any hazardous wastes in these areas?		
NUMBER OF NON-CONFORMANCES		
3. Inspect the wastewater flowing drain before and after treatment system, and drain joining to public drain (YES = Non-conformance):		
Are there any blockage in the drain?		
Has any general rubbish or waste been placed in the drain?		
Is there no treatment system running in certain drain point locating between drain points after operation wastewater disposing and before public drain receiving (if disposed wastewater quality is beyond NEQEG wastewater quality)		
NUMBER OF NON-CONFORMANCES		
3. Talk to the persons responsible for managing the hazardous waste (Factory Assistant Manager, Engineering Team, Maintenance personnel) (NO = Non-conformance):		
Are they aware of where the wastes are being disposed?		
Do they know when the next batch is being sent?		
Do they have files with copies of the Tracking Manifests?		
Do they have an up-to-date Waste Inventory, showing the date, nature and quantity of waste leaving the Project and being disposed in the landfill?		
NUMBER OF NON-CONFORMANCES		
TOTAL NUMBER OF NON-CONFORMANCES		

COMMENT ON THE NATURE OF THE NON-CONFORMANCES AND CORRECTIVE / PREVENTIVE ACTION REQUIRED

RECORD ANY SUGGESTIONS FOR IMPROVEMENT RECOMMENDED BY THE ASSISTANT MANAGER, ENGINEER OR SUPERVISOR

11 – AUDIT OF WASTE TRACKING DOCUMENTATION

Responsibility:	Factory Manager / Environmental Coordinator
Frequency:	Every 3 months
Equipment required:	None
Parameter	Implementation of waste inventory registering system

Procedure:

1. Review the waste inventories held by the:
 - Proposed Project Maintenance Personnel
 - Assistant Manager
 - Maintenance Engineer
2. Review samples of the associated Waste Manifests (to BTDC) for the last 3 months:
 - Have the wastes noted on the inventories been disposed at the appropriate location?
 - Are Waste Manifests being completed at each location?
 - Are Waste Manifests being appropriately filed?

If not, this represents a non-conformance.

Reporting:

Record the number of non-conformances, and reasons for the non-conformance on a Data Record. Take corrective/ preventive action, and record this on the Data Record.

COMMENT ON THE NATURE OF THE NON-CONFORMANCES AND CORRECTIVE / PREVENTIVE ACTION REQUIRED

RECORD ANY SUGGESTIONS FOR IMPROVEMENT RECOMMENDED BY THE ASSISTANT MANAGER, ENGINEER OR SUPERVISOR

12 – ENVIRONMENTAL MANAGEMENT PLAN IMPLEMENTATION AUDIT

Responsibility: Managing Director/Director

Frequency: Every 6 months

Equipment Required: Checklist

Parameter Implementation of approved EMP for proposed project

Procedure:

1. Complete the attached Environmental Audit Checklist
2. If there are any non-conformances, take corrective / preventive action.

Reporting:

Record the number of non-conformances, and any corrective action taken, on a Data Record.

EMP IMPLEMENTATION AUDIT CHECKLIST

AUDITOR:

DATE:

Tick Yes or No for each of the following:	Yes	No
1. Inspect Storage areas for hazardous materials and wastes (waste oil, medical waste, waste solvents and chemicals, empty drums or tins (which contained hazardous materials)) at the Proposed Project (NO = Non-conformance):		
Are the materials labelled?		
Are the materials segregated?		
Is the storage area free of spills?		
Is the storage area containing such that surface runoff cannot assets soils or surface drains?		
NUMBER OF NON-CONFORMANCES		
2. Randomly inspect other working areas at the Proposed Project (YES = Non-conformance):		
Are there any spills in the area?		
Are there any hazardous wastes or materials in these areas?		
NUMBER OF NON-CONFORMANCES		
3. Check the appearance of the nearest drain and creek (YES = Non-conformance):		
Is there hydrocarbon sheen on the water surface?		
Are there floating solids visible, being discharged from the Proposed Project?		
Is the creek or drain odorous?		
Can you see any discharges which should not be occurring, reaching the creek?		
NUMBER OF NON-CONFORMANCES		
4. Observe emissions from diesel powered backup generator (if it is running) (YES = Non-conformance):		
Do emissions appear to be excessive?		
Is obvious noise come out?		
NUMBER OF NON-CONFORMANCES		
5. Talk to the Factory Manager, Assistant Manager, and Engineer (NO = Non-conformance):		
Do they have up to date files with copies of the Data Record?		
Have recent corrective actions required been acted on?		
NUMBER OF NON-CONFORMANCES		
6. Inspect the Factory (NO = Non-conformance):		
Is it clean?		

Are products clean?		
Is equipment operating?		
NUMBER OF NON-CONFORMANCES		
7. Inspect the Canteen (YES = Non-conformance):		
Are there any wastes in the canteen which should not be there – including general rubbish, medical waste and unacceptable hazardous waste?		
Are there any mouse/ rodents, fly, insects evident at the waste storage area near the canteen?		
NUMBER OF NON-CONFORMANCES		
TOTAL NUMBER OF NON-CONFORMANCES		

COMMENT ON THE NATURE OF THE NON-CONFORMANCES AND CORRECTIVE / PREVENTIVE ACTION REQUIRED

RECORD ANY SUGGESTIONS FOR IMPROVEMENT RECOMMENDED BY THE ASSISTANT MANAGER, ENGINEER OR SUPERVISOR

CORRECTIVE ACTION PROCEDURE

OBJECTIVE

The objective of this procedure is to provide a mechanism for reporting and requesting corrective actions, ensuring that actions are completed, and implementing preventive action. Corrective action requests may be issued by anyone within the organization.

PROCEDURE

There are two types of corrective actions:

1. **Corrective actions which are required as a result of not meeting an environmental performance objective during routine monitoring.**

These corrective actions could include, for example:

- Cleaning up the chemical storage area; or
- Maintaining the water polisher to improve the quality of wastewater discharged

If the corrective action can be implemented by the person responsible for completing the monitoring, the action should be taken, and recorded on the Data Record.

If the corrective action requires significant input from others (expertise or resources), a Corrective Action Request (CAR) should be completed as described below.

2. **Corrective and preventive actions required as a result of an actual or potential spill, leak, loss of containment, or other environmental incidents.**

On observation of a situation which has the Potential to impact the environment:

- a. If possible, take immediate action to prevent the impact (for example, clean up a spill, fixes a leak), then report the incident to the Supervisor and discuss the action required.
- b. Complete a Corrective Action Request (attached), and forward copies to the Supervisor and the Manager.

The person identified as responsible for completing the corrective action should do so within the indicated time period, sign off the CAR form, and return it to the Manager for review and filing in the central CAR file.

The Manager will conduct weekly checks of the CAR file. Any CARs which have not been acted on in the required time period will be investigated by the Manager.

CORRECTIVE ACTION REQUEST (CAR)

1. DESCRIPTION OF INCIDENT

CAR Completed by:	Date:
Describe Incident / Circumstance Requiring Corrective Action:	
Describe Corrective Action Taken	
Describe any further Corrective or Preventive Action Required:	
Identify Person Responsible for Conducting Corrective/Preventive Action:	
Date by which Corrective / Preventive Action Will be Completed:	

2. DATE CAR FORWARDED TO GENERAL MANAGER

3. DATE CAR FORWARDED TO RESPONSIBLE PERSON FOR ACTION

4. CORRECTIVE / PREVENTIVE ACTION TAKEN

Describe Corrective / Preventive Action Taken:
Date of Corrective / Preventive Action:
Corrective / Preventive Action Taken by: (Name and Sign):

5. SIGN OFF AND DATE BY MANAGING DIRECTOR

MANAGEMENT REVIEW ON ENVIRONMENTAL MANAGEMENT PLAN

The objectives of Management Review on the EMP are to:

- Determine whether the EMP conforms to planned arrangements for environmental management and whether it has been properly implemented and maintained;
- Identify areas where the EMP can be streamlined and generally improved; and
- Provide information on the results to management.

The review should be undertaken by the LTICL Managing Director (or) his delegate person with assistance from an external party as appropriate.

The audits should be conducted on a six-monthly basis and cover all elements of the operation i.e., LTICL Worksite.

The scope will include:

- Review of documents that form the basis of the information flow of the EMP and evaluate overall compliance with the nominated procedure, including degree of completeness of each data record, timing of submittal, distribution to nominated parties and filing;
- Assessment of regulatory compliance;
- Evaluation of follow-up action regarding on Corrective Action Records, the Complaints Register; and the Incidents Record;
- Interviews with individuals providing direct input to the EMP with the objective of assessing effectiveness of the EMP data gathering process and format;
- Assessment of the adequacy of resources to accomplish the EMP tasks; and
- Assessment of the environmental awareness and training program.

The audit will document areas that have not conformed to the EMP requirements and will be supported with appropriate evidence and backup. The audit report should also include suggestions on how the EMP can be improved and an assessment of whether the EMP has been effective in meeting the intent of the Environmental Policy. All recommendations will be action-oriented and include details on priorities, responsible parties, resources and timing.
