GT INDUSTRIAL (MYANMAR) COMPANY LIMITED.

Environmental Management Plan

Manufacturing of Garment on CMP Basis

Prepared by
MYANWEI
ENVIRONMENTAL SOLUTIONS
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Commitment and Acknowledgement

Environmental Management Plan (EMP) describes the environmental condition of a project, including potential impact, formulation of mitigation measures and preparation of institutional requirements and environmental monitoring. This EMP report was prepared using information from the following:

- Meeting with Project Proponent,
- The experience of EMP team and
- Information solicited from baseline data

We strongly commit that this report was prepare in compliance with Myanmar Environmental Laws and Regulations.

This report has been prepared by Myanwei Environmental Solutions Company Limited with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

Approved by:

GT Industrial (Myanmar) Company Limited

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ကတိကဝတ်

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်တွင်ပါရှိသည့်ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့ပါးစေရေးလုပ်ငန်းများနှင့်စောင့်ကြပ်ကြည့်ရှုရေးလုပ်ငန်းများ ကို လုပ်ငန်းပိုင်ရှင်မှ အကောင်အထည်ဖော်မည် ဖြစ်ကြောင်း GT Industrial (Myanmar) Company Limited မှ အတည်ပြုဝန်ခံ လက်မှတ်ရေးထိုးပါသည်။

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- ဤလုပ်ထုံးလုပ်နည်းအပါအဝင်သက်ဆိုင်ရာဥပဒေများကို တိကျစွာ လိုက်နာ၍ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် ကိုရေးဆွဲထားကြောင်း၊
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  ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ဖြစ်စေရန်အတွက်ပြင်ဆင်ဖြည့်စွက်ရန်ညွှန်ကြားချက်ရှိလာပါကဆောင်ရွက်မည်ဖြစ်ကြောင်းနှင့် လုပ်ငန်းဆောင်ရွက်သူမှပြင်ဆင်ဆောင်ရွက်မည် ဖြစ်ကြောင်း၊
- စက်ရုံပိတ်သိမ်းမည်ဆိုပါကပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာများမထိခိုက်စေရန် အစီအစဉ်များချမှတ်ဆောင်ရွက်မည် ဖြစ်ကြောင်း၊

MR. XU HAILONG

DIRECTOR

GT INDSUTRIAL (MYANMAR) CO., LTD.

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Appendix A GT Industrial (Myanmar) Co., Ltd.

Appendix B Transitional Consultant Registration Certificate

Appendix C Monitoring Results

Appendix G List of Commitment

Abbreviation

1. CEMP = Construction Environmental Management Plan
2. CMP = Contract Manufacturing Process
3. CSR = Corporate Social Responsibility
4. ECC = Environmental Compliance Certificate
5. ECD = Environmental Conservation Department
6. EIA = Environmental Impact Assessment
7. EMoP = Environmental Monitoring Plan
8. EMP = Environmental Management Plan
9. GIIP = Good International Industry Practices
10. HSE = Health, Safety and Environment
11. IEE = Initial Environmental Examination
12. IFC = International Finance Corporation
13. NEQG = National Environmental Quality (Emission) Guidelines
14. MIC = Myanmar Investment Commission
15. MOECAF = Ministry of Environmental Conservation and Forestry
16. MONREC = Ministry of Natural Resources and Environmental Conservation
17. OEMP = Operation Environmental Management Plan
18. OSHA = Occupational Safety and Health Administration
19. PPE = Personal Protective Equipment
20. WHO = World Health Organization
21. YCDC = Yangon City Development Committee
22. YESB = Yangon City Electricity Supply Board

အစီရင်ခံစာအကျဉ်းချုပ်

နိဒါန်း

အဆိုပြုလုပ်ငန်းသည် CMP စနစ်ဖြင့် အဝတ်အထည်များချုပ်လုပ်ခြင်းလုပ်ငန်း အတွက် ရင်နှီးမြှုပ်နှံသော ကုမ္ပဏီဖြစ်ပါသည်။ ၂၀၁၉ခုနှစ်၊ ဩဂုတ်လ ၂ ရက်နေ့တွင် (အတည်ပြုမိန့်အမှတ် ပခတ-၀၂၃/၂၀၁၉)ဖြင့် ပဲခူးတိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီမှ ရရှိပြီးဖြစ်ပါသည်။ လုပ်ငန်းလည်ပတ်ရန်အတွက် မြန်မာနိုင်ငံသယံဇာတ နှင့်သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC) ၏ အတည်ပြုချက်ရယူရန် လိုအပ်ကြောင်း ကော်မရှင်မှ မှာကြားခဲ့ပါသည်။ ရင်းနှီးမြှုပ်နှံမှုပမာဏမှာ အမေရိကန် ဒေါ်လာ ၂.၁၂သန်း ဖြစ်ပါသည်။

ထို့ကြောင့် မြန်မာနိုင်ငံ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂)အရ ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) ပြုလုပ်ရန်လိုအပ်ကြောင်း ၂၀၂၀ ပြည့်နှစ်၊ ဇူလိုင်လ၊ ၁၀ ရက်နေ့ ရက်စွဲပါ စာအမှတ်၊ ပဲခူး/အီးအိုင်အေ (၁၅၁၆/၂၀၂၀) ဖြင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန ပဲခူးတိုင်းဒေသကြီးမှ သဘောထားမှတ်ချက်ရရှိပြီးဖြစ်ပါ သည်။ ထို့ကြောင့် EMP အစီအရင်ခံစာရေးဆွဲရန် တတိယအဖွဲ့အစည်းဖြစ်သော Myanwei Environmental Solutions Co., Ltd. မှ တာဝန်ယူရေးဆွဲခဲ့ပါသည်။

EMP အစီအစဉ်တွင် GT Industrial (Myanmar) Company Limited ၏ အဝတ်အထည်များချုပ်လုပ်ခြင်း စီမံကိန်းအတွက် Myanwei Environmental Solutions Co., Ltd. မှရေးသားပြုစုထားသော ပတ်၀န်းကျင်စီမံခန့်ခွဲမှု အစီရင်ခံစာဖြစ်သည်။ အဆိုပါ လေ့လာဆန်းစစ်ခြင်း၏ ရည်ရွယ်ချက်များမှာ-

- ✓ သဘာ၀ပတ်၀န်းကျင်နှင့် လူမှုစီးပွားပတ်၀န်းကျင်အပေါ် စီမံကိန်းဆောင်ရွက်ချက်များကြောင့် ထိခိုက်မှုများကိုလေ့လာရန်။
- ✓ ထိုထိခိုက်မှုများကို လျော့ချနိုင်ရန် လျော့နည်းစေမည့်နည်းလမ်းများကို ဖော်ပြရန်။
- ✓ စီမံကိန်းအတွက် ပတ်၀န်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ပြင်ဆင်ရန်နှင့် အကောင်အထည်ဖော်ရန်။
- ✓ စီမံကိန်းအတွက် ပတ်၀န်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ လုပ်ဆောင်ရာတွင် လုံလောက်မှုရှိစေရန်။
- ✓ ဒေသခံများ၏ လူမှုရေးသက်သာချောင်ချိမှုများ တိုးမြှင့်ရန် နှင့် ဒေသအတွင်း ဖွံ့ဖြိုးတိုးတက်မှုများ အတွက် မရှိမဖြစ် အရေးပါသော လူမှုစီးပွားတာ၀န်ယူမှု အစီအစဉ်အား အကောင်အထည်ဖော်ရန်တို့ ဖြစ်ပါသည်။

အဆိုပြုထားသော စီမံကိန်း၏ ရည်ရွယ်ချက်သည် CMP စနစ် (ဖြတ်-လုပ်-ထုတ်) စနစ်ကို အသုံးပြု၍ အ၀တ်အထည်များကို ထုတ်လုပ်ပီး နိုင်ငံခြားသို့ ၁၀၀ % တင်ပို့ရန်ဖြစ်ပါသည်။

ဥပဒေနှင့် မူ၀ါဒဆိုင်ရာ အချက်အလက်များ

EMP ရေးဆွဲရခြင်း၏ရည်ရွယ်ချက်မှာ နိုင်ငံတော်နှင့် နိုင်ငံတကာမှ ချမှတ်ထားသော ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးအစီအစဉ်များ၊ စည်းမျဉ်းစည်းကမ်းများ၊ ဥပဒေနှင့် နည်းဥပဒေများကို လိုက်နာပြီး ပတ်ဝန်းကျင်နှင့် လိုက်ရောညီထွေမှုရှိသော ထိခိုက်မှု လျော့ချရေး အစီအစဉ်များ ပြုလုပ်ရန်ဖြစ်ပါသည်။

ပတ်ဂန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ ရေးသားပြုစုသူများ၏ ကျွမ်းကျင်မှု နယ်ပယ်ဆိုင်ရာ ဖော်ပြချက်များကို ရေးသားဖော်ပြထားပါသည်။ ဥပဒေနှင့် နည်းဥပဒေ အခန်းတွင် MONREC မှ ထုတ်ပြန်ထားသည့် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်းများ၊ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များအပြင်စက်ရုံနှင့် ဆက်စပ်သက်ဆိုင်နေပြီး လိုက်နာရမည့် ဥပဒေနှင့် နည်းဥပဒေများ၊ ဒေသတွင်း သို့မဟုတ် အပြည်ပြည်ဆိုင်ရာ သဘာဝပတ်ဝန်းကျင်နှင့် လူမှုပတ်ဝန်းကျင်ဆိုင်ရာ မူဝါဒများ၊ ဆက်စပ်နေသည့် နိုင်ငံတကာသဘောတူချက်များကို အကျဉ်းချုပ်ရေးသားဖော်ပြထားပါသည်။ စက်ရုံအတွင်းလိုက်နာဆောင်ရွက်ရမည့် စည်းမျဉ်းစည်းကမ်းများ၊ လုပ်ငန်းခွင် အန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေးဆိုင်ရာ အခြေခံစည်းမျဉ်းစည်း ကမ်းများလည်း ထည့်သွင်းဖော်ပြထားပါသည်။ GT Industrial (Myanmar) Company Limited ၏ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ ကတိကဝတ်များအပြင် ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့ချရေး မူဝါဒများကိုလဲ ထည့်သွင်းဖော်ပြထားပါသည်။

1. The Constitution Law, 2008
2. The Environmental Conversation Law, 2012
3. The Environmental Conversation Rule, 2014
4. Environmental Impact Assessment Procedure, 2015
5. National Environmental Quality (Emission) Guideline, 2015
6. National Myanmar Environmental Policy, 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 Payment of Wages Act, 1936
13. Yangon City Development Committee Law, 2018
14. The Amended Law for Factories Act, 1951 (2016)
15. The Private Industrial Enterprise Law
16. The Export and Import Law, 2012
17. The Prevention of Hazard from Chemical and Related Substances Law, 2013

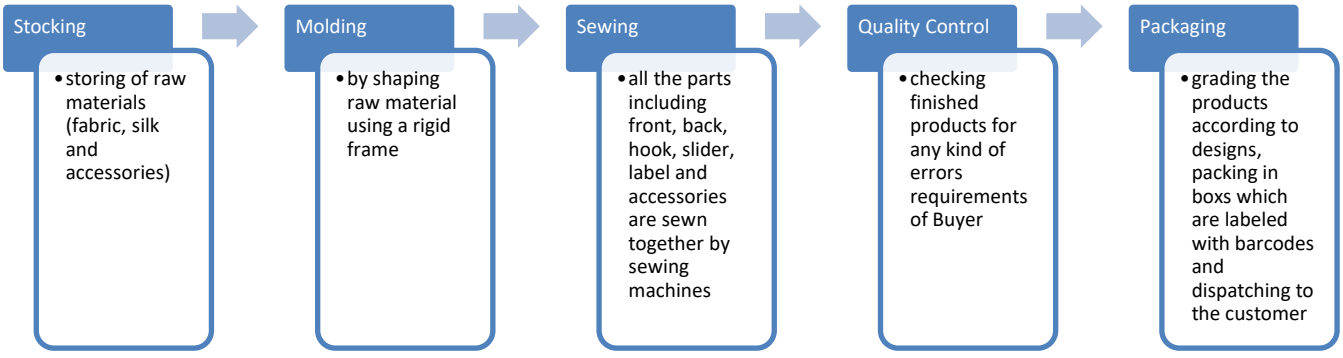
18. The Underground Water Act
19. Myanmar Fire Brigade Law, 2015
20. Fire Safety Procedure
21. The Electricity Law, 2014
22. Boiler Law, 2015
23. Labor Dispute Settlement Law, 2012
24. The Law Amending the Settlement of Labor Dispute Law, 2019
25. The Social Security Law, 2012
26. The Employment and Skill Development, 2013
27. The Worker's Compensation Act, 1923
28. The Leave and Holidays Act (1951, partially reused in 2014)
29. The Minimum Wage Law, 2013
30. Public Health Law, 1972
31. Prevention and Control of Communicable Disease Law (1995 Amendment in 2011)
32. Occupational Safety and Health Law, 2019
33. The Law on Standardization
34. လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများဆိုင်ရာ ဥပဒေ၊ (2018)
35. The Motor Vehicles Law, 2015
36. The Conversation of Water Resources and River Law, 2006
37. The Commercial Tax Law (1990 Amended 2014)

စီမံကိန်းဆိုင်ရာအချက်အလက်

အဆိုပြုထားသော စီမံကိန်း	CMP စနစ်ဖြင့်အဝတ်အထည်များချုပ်လုပ်ခြင်းလုပ်ငန်း
ရင်းနှီးမြှုပ်နှံမှုပုံစံ	ရာနှုန်းပြည့်နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှု
ကုမ္ပဏီအမည်	GT Industrial (Myanmar) Company Limited
အဆိုပြုရင်းနှီးမြှုပ်နှံမှုကာလ	နှစ် ၅၀

စုစုပေါင်းမြေကွက်ဧရိယာ	မြေဧရိယာ(၂.၅ ဧက)
မြေနေရာပုံစံ	စက်မှုဇုန်မြေ
တည်ဆောက်မှုကာလ	၂ နှစ်
စီမံကိန်း တည်နေရာ	ဦးပိုင်အမှတ်-(၅၆/၂)၊ ကွင်းအမှတ်-(၁၁၇၃-ဘူးလယ်အင်းကွင်း)၊ ဘူးလယ်အင်းကျေးရွာအုပ်စု၊ ပဲခူးမြို့နယ်။
ဆက်သွယ်ရန် ဖုန်းနံပါတ်	ဒေါ်မေသူနိုင် (HR Manager) ၀၉-၄၂၅၃၃၆၉၄၀

အဆိုပြုလုပ်ငန်းအတွက် တည်နေရာနှင့် စက်ရုံအတွင်းပါရှိသည့် အဆောင်များ၊ စားသောက်ဆောင်၊ စတို၊ ပြုပြင်ထိမ်းသေးရေးအခန်း၊ မီးဖိုချောင် အစရှိသည်တို့ကိုသီးခြားဖော်ပြထားပါသည်။ထို့အပြင် ထုတ်လုပ်မှုနည်းလမ်းများ၊ လိုအပ်သည့်ကုန်ကြမ်းများ၊ နှစ်စဉ်ထွက်ကုန်များ နှင့် စက်ပစ္စည်းများအား ဖော်ပြထားပါသည်။ အဆိုပြုလုပ်ငန်းအတွက်လိုအပ်သည့် စွမ်းအင်နှင့် အသုံးပြုသည့်ပမာဏများကိုလဲ ထည့်သွင်းဖော်ပြထားပါသည်။ ကျန်လုပ်ငန်းသုံးယာဉ်နှင့် ရုံးသုံးပစ္စည်းများကို ပြည်တွင်းမှ ဝယ်ယူအသုံးပြုပါသည်။ ကုန်ထုတ်လုပ်ခြင်းလုပ်ငန်းမှာ automatic machine နှင့် လူစွမ်းအားကို အသုံးပြုသော လုပ်ငန်းမျိုးဖြစ်ပါသည်။ ထုတ်လုပ်ပုံအဆင့်ဆင့်ကို အောက်ဖော်ပြပါ ပုံပြဇယားဖြင့် ဖော်ပြထားပါသည်။



လုပ်ငန်းမှ ပထမနှစ် မှ ၃၀ နှစ်အတွင်း အထည်အရေအတွက် (၃၄၇,၀၀၀) မှ (၃၉၀,၅၁၈)အထိ တိုးမြှင့်ထုတ်လုပ်သွားမည်ဖြစ်သည်။ နိုင်ငံခြားသားလုပ်သား (၅) ဦး နှင့် နိုင်ငံသား (ပြည်တွင်း) လုပ်သား (၁၉၀) ဦးဖြင့် ဆောင်ရွက်သွားမည်ဖြစ်သည်။

အနီးပတ်ဝန်းကျင်အခြေအနေ

ကနဦးစစ်တမ်းကောက်ယူခြင်းနှင့် ဒေသဆိုင်ရာမှအချက်အလက်များရယူခြင်းသည် အလွန်အရေးကြီးပါသည်။ ပတ်၀န်းကျင်အရည်အသွေး တိုင်းတာခြင်းကဲ့သို့သော ကနဦးစစ်တမ်းကောက်ယူခြင်းသည် ပတ်၀န်းကျင်စီမံခန့်ခွဲမှု အစီရင်ခံစာတွင် အရေးပါသောအခန်းအဖြစ် တည်ရှိနေသည်။ ထို့အတွက် စီမံကိန်းဒေသသို့

ကွင်းဆင်းလေ့လာမှုများကို ၁၈ ရက်၊ ဒီဇင်ဘာလ၊ ၂၀၂၀ပြည့်နှစ် တွင် စက်ရုံသို့လက်တွေ့ကွင်းဆင်းလေ့လာခဲ့ပီး လိုအပ်သည့် လေအရည်အသွေး၊ ဆူညံမှု၊ အလင်း၊ အပူချိန်နှင့် စိုထိုင်းမှု အစရှိသည့် အချက်အလက်များကို ရယူခဲ့ပါသည်။ ကွင်းဆင်းလေ့လာထားသည့် အချက်အလက်များကို သက်ဆိုင်ရာခေါင်းစဉ်အလိုက် အမျိုးသားပတ်ဂန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များနှင့် နှိုင်းယှဉ်၍ ဖော်ပြထားပါသည်။ ထိုနည်းတူ လျော့ချရမည့်နည်းလမ်းများကိုလဲ ထည့်သွင်းဖော်ပြထားပါသည်။ စီမံကိန်းတည်ရှိရာဒေသရှိ ရာသီဥတု၊ မိုးရေချိန်၊ လူမှုစီးပွားရေးဆိုင်ရာအချက်အလက်များကိုလဲ ထည့်သွင်းဖော်ပြထားပါသည်။

ပတ်ဝန်းကျင်ထိခိုက်မှုနှင့် လျော့ချရေး အစီအစဉ်

စီမံကိန်းလုပ်ဆောင်ချက်များကြောင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အရင်းအမြစ်များ၊ စီးပွားဆိုင်ရာ အရင်းအမြစ်များ၊ အမှိုက်စွန့်ပစ်မှု စသည့် သက်ရောက်မှုများဖြစ်ပေါ်လာနိုင်ပါသည်။ စီမံကိန်းလုပ်ဆောင်ချက်ကြောင့်သက်ရောက်မှုများနှင့် လျော့ချရေးနည်းများ အကျဉ်းချုပ်ကို အောက်တွင်ဖော်ပြထားပါသည်။

အုပ်စုများ	သက်ရောက်မှု အရင်းအမြစ်	လျော့ချရေးနည်းလမ်းများ
လေအရည်အသွေး	• ကုန်ကြမ်းပစ္စည်းများ၊ ကုန်ချောပစ္စည်းများသယ်ဆောင်သောယာဉ်များမှ ဖုန်မှုန့်များ ဖန်လုံအိမ်အာနိသင်ဖြစ်စေသော ဓာတ်ငွေ့များထွက်ရှိခြင်း။ • ရေနွေးငွေ့သုံးဘွိုင်လာမှ အခိုးအငွေ့များထွက်ခြင်း။ • အရေးပေါ်မီးစက်များနှင့် ယာဉ်အသွားအလာမှ ထွက်သော မီးခိုးများ။	• လေညစ်ညမ်းမှုများကိုထိန်းချုပ်ခြင်း၊ ယာဉ်များ၊ မီးစက်များ၊ စက်ပစ္စည်းများကို ပုံမှန်စစ်ဆေးခြင်း။ • စက်ရုံမှဘွိုင်လာရေနွေးငွေ့နှင့်မီးစက်များမှဓာတ်ငွေ့များထုတ်ရန် မီးခိုးခေါင်းတိုင်တပ်ဆင်ခြင်း နှင့် ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့နည်းစေရန် မီးခိုးများကို စစ်၍ ထုတ်လွှတ်စေခြင်း။ • ယာဉ်များ၊ကွန်ပရက်ဆာ၊မီးစက်များကို ကောင်းမွန်စွာထိန်းသိမ်းခြင်း။
ရေအရည်အသွေး	• ထုတ်လုပ်ရေးလုပ်ငန်းများ။	ထိခိုက်မှုလျော့ချရန်မလိုပါ။
မြေအရည်အသွေး	• အင်ဂျင်ဆီများ၊ ဒီဇယ်ဆီများသိုလှောင်ခြင်းနှင့် ဖိတ်ယိုခြင်း။	ထိခိုက်မှုလျော့ချရန်မလိုပါ။
ဆူညံသံနှင့် တုန်ခါမှု	• ကုန်ပစ္စည်းထုတ်လုပ်သည့်လုပ်ငန်းများမှ စက်ပစ္စည်းများမှ ဆူညံသံများထွက်ခြင်း။	ထိခိုက်မှုလျော့ချရန်မလိုပါ။
ကုန်းနေအပင်နှင့် သတ္တဝါများ၊ ရေနေသတ္တဝါ	• အထည်ချုပ်လုပ်ငန်းလုပ်ဆောင်ခြင်း။	ထိခိုက်မှုလျော့ချရန်မလိုပါ။

အုပ်စုများ	သက်ရောက်မှု အရင်းအမြစ်	လျော့ချရေးနည်းလမ်းများ
များ		
မီးဘေးအန္တရာယ်	• လျှပ်စစ်တပ်ဆင်ရာတွင် စနစ်တကျတပ်ဆင်မှု မရှိခြင်း။ • ကုန်ကြမ်းပစ္စည်း စွန့်ပစ်ခြင်း၊ ဓာတုပစ္စည်း သိုလှောင်ခြင်း။	• စက်ရုံ၏မီးဘေးအန္တရာယ်ကာကွယ်ရန်အတွက် မီးသတ်ဆေးဘူး၊မီးသတ်ပိုက်၊မီးသတ်ခေါင်း များထားရှိခြင်း။ • မီးသတ်ဆိုင်ရာစက်ပစ္စည်းကိရိယာများကိုပုံမှန်စစ်ဆေးခြင်း၊အရေးပေါ် အခြေနေအတွက် မီးသတ်ရေကန်အဆင်သင့်ထားရှိခြင်း။ • စက်ရုံအတွင်းအရေးပေါ် အချက်ပေးစနစ်များထားရှိခြင်း။ • အရေးပေါ် ထွက်ပေါက်များတလျောက်တွင် ကုန်ပစ္စည်းများပိတ်ဆို့ခြင်းမရှိအောင်ရှင်းလင်းထားရှိခြင်း။
လုပ်ငန်းခွင်ဘေး အန္တရာယ်	• စက်ပစ္စည်းများလည်ပတ်ခြင်းကြောင့် မတော်တဆထိခိုက်မှုများဖြစ်ပေါ် နိုင်ခြင်း။ • ပစ္စည်းတင်ချုပြုလုပ်ခြင်း၊ ဖြတ်တောက်ခြင်း၊ ရောနှောခြင်း၊ ဖိနှိပ်ခြင်း၊ ထုတ်ပိုးခြင်း။ • ရေနွေးငွေ့သုံးမီးပူများကြောင့်မတော်တဆ ထိခိုက်မှုများဖြစ်ပေါ် နိုင်ခြင်း။	• အရေးပေါ် အခြေအနေများအတွက် စက်ပစ္စည်းကိုင်တွယ်မှုသင်တန်းပေးခြင်း၊ ကြက်ခြေနီသင်တန်းပေးခြင်း၊ မီးသတ်သင်တန်းပေးခြင်း။ • လုပ်ငန်းခွင်အတွင်း အလုပ်သမားများ အလင်းရောင်ကောင်းစွာရရှိစေရန်နှင့် အမြင်အာရုံမထိခိုက်စေရန် အလင်းရောင်များကို လုံလောက်စွာထားရှိခြင်း။ • အလုပ်သမားများအတွက်တစ်ကိုယ်ရေကာကွယ်ရေးသုံးပစ္စည်းများဖြစ်သည့် နားကြပ်၊ လက်အိတ်၊ ဦးထုတ်၊ မျက်မှန် များ အသုံးပြုစေခြင်း။ • လျှပ်စစ်အန္တရာယ်မဖြစ်စေရန် နှင့် ပြုပြင်ထိန်းသိမ်းမှုများ ပြုလုပ်ရန်အတွက် ဝန်ထမ်းထားရှိ၍ ပုံမှန်စစ်ဆေးခြင်း။
ကျန်းမာရေး	• အရေးပေါ် မီးစက်များမှ ဆူညံသံများထွက်ပေါ် လာခြင်း။	• လုပ်သားများအတွက်ကျန်းမာရေးမထိခိုက်စေရန် ရေမြောင်းများကိုစနစ်တကျထားရှိခြင်း။ • လုပ်သားများအတွက်ရှစ်နာရီအတွင်းလက်ခံနိုင်သည်အမြင့်ဆုံး ဆူညံမှု နှုန်းမှာ 90dB(A) ဖြစ်သည်။

အုပ်စုများ	သက်ရောက်မှု အရင်းအမြစ်	လျော့ချရေးနည်းလမ်းများ
		အသံဆူညံမှုအမြင့်ဆုံးနေရာများတွင် နားကြပ်များ တပ်ဆင်စေခြင်း။
စွန့်ပစ်အစိုင်အခဲများ	• ကုန်ထုတ်လုပ်သည့်နေရာမှထွက်ရှိသော ပိတ်အပိုင်းအစများ။ • ကုန်ပစ္စည်းထုတ်ပိုးခြင်းမှထွက် ရှိသော အပိုင်းအစများ။ • မီးဖိုချောင်၊လူနေဆောင် ရုံးခန်းမှထွက်ရှိသောအမှိုက်များ။	• စက်ရုံအတွင်း အမှိုက်ပုံးများထားရှိခြင်း။ • သတ်မှတ်ထားသောနေရာတွင် အမှိုက်စို၊ အမှိုက်ခြောက်များခွဲခြားစွန့်ပစ်ခြင်း။ • အမှိုက်များကို မြို့နယ်စည်ပင်သာယာရေး ကော်မတီနှင့် ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။
စွန့်ပစ်အရည်	• မိလ္လာစနစ်ထားရှိခြင်း။ • ရုံးခန်း၊မီးဖိုချောင်နှင့် လူနေဆောင်များမှ စွန့်ပစ်အရည်များထွက်ရှိခြင်း။	• ဆီကန်၊ မိလ္လာကန်များ ကိုပုံမှန်စစ်ဆေးခြင်း၊ သန့်စင်ခြင်းများပြုလုပ်ခြင်းဖြင့် စွန့်ပစ်အရည်များ စိမ့်ဝင်မှုများကိုလျော့ကျစေနိုင်ခြင်း။
အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများ	• မော်တော်ယာဉ်များ၊ စက်ပစ္စည်းများ ပြုပြင်ထိန်းသိမ်းခြင်းမှ ဆီများထွက်ရှိခြင်း။	• အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများသိုလှောင်မှု အားထိန်းသိမ်းခြင်း၊ စစ်ဆေးခြင်း။ • လုပ်ငန်းခွင်ကျန်းမာရေး၊ လုံခြုံမှုနှင့်ပတ်ဝန်းကျင်ဆိုင်ရာ လိုအပ်ချက်များ နှင့်ကိုက်ညီမှုရှိစေရန် ဓာတုပစ္စည်းများကို စနစ်တကျစွန့်ပစ်ခြင်း။ • ဓာတုပစ္စည်းသိုလှောင်သည့် ပုံးခွံများကို စနစ်တကျပြန်လည်အသုံးပြုခြင်း (သို့မဟုတ်) စနစ်တကျစွန့်ပစ်ခြင်း။ • အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများကို မြို့တော်စည်ပင်သာယာရေး ကော်မတီ (သို့မဟုတ်) လိုင်စင်ရ အမှိုက်စွန့်ပစ်ရေးဆိုင်ရာအဖွဲ့အစည်းများ (ဥပမာ။ DOWA နှင့်ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။)

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်

အဆိုပြုလုပ်ငန်း၏ ပတ်ဂန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် Environmental Management System (EMS) စက်ဝိုင်းဖြင့် အစီစဉ်တကျ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ အစီအစဉ်တွင် စက်ရုံကြောင့် ဖြစ်ပေါ်စေနိုင်သော ပတ်ဝန်းကျင်နှင့် လူမှုဘဝအပေါ် ဆိုးကျိုးသက်ရောက်မှုများကို လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး

အစရှိသည့် အစီအစဉ်များ ပါဝင်ပါသည်။ ၄င်း EMP အစီအစဉ်များကို အကောင်အထည်ဖော်ရန်အတွက် စက်ရုံတွင် ကျန်းမားရေး၊ ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အဖွဲ့အစည်းတစ်ခုထားရှိပြီး လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်များကို အကောင်အထည်ဖော်သွားမည်ဖြစ်ပါသည်။ အဆိုပါစက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ရေရှည်ဖွံ့ဖြိုးတိုးတက်ကောင်းမွန်သော ပတ်ဝန်းကျင် အဖြစ် အကောင်အထည်ဖော်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ဆိုင်ရာ ဆိုးကျိုးသက်ရောက်မှုများကို လျော့နည်းစေရန် စီမံခန့်ခွဲမှုအစီအစဉ်များနှင့် စောင့်ကြပ်ကြည့်ရှုရမည့်အစီအစဉ်များကို အောက်ပါအတိုင်းပတ်ဝန်းကျင်ဆိုင်ရာ အကြောင်းအရာတစ်ခုချင်းစီအလိုက် ခွဲခြားထားပါသည်။

၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- စက်ရုံတွင် ကာဗွန် နှင့် လေထုညစ်ညမ်းမှု လျော့ချရန် သစ်ပင်ပန်းပင်များ စိုက်ပျိုးထားရှိခြင်း၊
- စက်ရုံအတွင်း မည်သည့် စွန့်ပစ်အမှိုက်များကို မီးရှို့ဖျက်စီးခြင်းအား မပြုလုပ်စေခြင်း၊
- အမှုန်များသောနေရာများတွင် လုပ်ငန်းလုပ်ဆောင်ရမည့် လုပ်သားများကို မျက်နှာအုပ် (Mask) များတပ်ဆင်စေခြင်း။

၂။ ဆူညံမှုထိန်းခြင်းဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- မီးစက်အသုံးပြုမှုအတွက် အသံလုံခန်းများဆောက်လုပ်ထားရှိခြင်း၊
- လုပ်ငန်းသုံးပြုသည့်ယာဉ်များကို သတ်မှတ်အရှိန်ထက် ကျော်လွန်၍ မမောင်းနှင်စေခြင်း
- လုပ်ငန်းခွင်အတွင်း လုပ်သားများအတွက် တစ်ကိုယ်ရေသုံး ကာကွယ်ရေးပစ္စည်း (PPE) များလုံလောက်စွာ ထားရှိပေးခြင်း
- လုပ်သားများကို PPE အသုံးပြုမှုနှင့် ပက်သက်၍ သင်တန်းများပို့ချပေးခြင်းနှင့် ဆူညံသံများသော နေရာတွင် အလုပ်လုပ်စဉ်တွင် PPE များကိုသေချာစွာ အသုံးပြုစေခြင်း

၃။ အမှိုက်စွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- စက်ရုံအတွင်း မည်သည့်စွန့်ပစ်ပစ္စည်းများကို့မြစ်၊ ချောင်း၊ အင်းအိုင် အတွင်းသို့ မစွန့်ပစ်ရ၊
- စွန့်ပစ်ပစ္စည်းများအား ပြန်လည်အသုံးပြုရန်နှင့် အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းအဖြစ် ခွဲခြားစွန့်ပစ်စေခြင်း၊
- အစိုင်အခဲစွန့်ပစ်ပစ်စွည်းများ (အဂတ်အစဖြတ်စ၊ ညှပ်စ) အား ပြည်တွင်းဝယ်ယူသူများထံ ပြန်လည်ရောင်းချစေခြင်း၊
- အိမ်သုံးစွန့်ပစ်အမှိုက်နှင့် လုပ်သားစွန့်ပစ် အမှိုက်များကို ပဲခူးမြို့နယ်စည်ပင်သာယာရေး နှင့် နေ့စဉ် စွန့်ပစ်ခြင်း
- အမှိုက်စွန့်ပစ်ခြင်းနှင့် ပတ်သက်၍ သင်တန်းပို့ချပေးခြင်း

၄။ ရေဆိုးစွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- စက်ရုံ၏ မိလ္လာစနစ်နှင့် ရေစီးကြောင်းများ နှင့် အနီးပန်းကျင်ရှိ ရေမြောင်းစနစ်များကို ရေလုံစေခြင်းနှင့် လုံလောက်သော အရွယ်အစား ထားရှိစေခြင်း
- မိလ္လာလိုအပ်ချက်များကို ပုံမှန်စစ်ဆေးပေးခြင်းနှင့် ပြုပြင်ထိန်းသိမ်းခြင်း

၅။ စွမ်းအင်စီမံခန့်ခွဲမှုအစီအစဉ်

- အပူအအေးထိန်းညှိပေးသည့် ကရိယာများတပ်ဆင်စေခြင်း
- စွမ်းအင်လျော့ချသည့် မီးလုံး၊ မီးချောင်းများတပ်ဆင်စေခြင်း
- စွမ်းအင်လျော့ချသည့်ကရိယာများ တပ်ဆင်ခြင်း
- အသုံးမပြုသည့်အချိန်တွင် စက်ပစ္စည်းများအား ပိတ်ထားခြင်း

၆။ ရေအသုံးပြုမှုစီမံခန့်ခွဲမှု အစီအစဉ်

- ရေအသုံးပြုမှုကို သိရှိနိုင်ရန် water meter အသုံးပြုခြင်း
- ရေအသုံးပြုမှုကို ထိန်းသိမ်းမှုများ ပြုလုပ်နိုင်စေရန် ဝန်ထမ်းများကို သင်ကြားပေးခြင်း
- မော်တော်ယာဉ်စက်ဆီနှင့်ချောဆီများကြောင့် ရေညစ်ညမ်းမှုမဖြစ်စေရန် ထိန်းသိမ်းဆောင်ရွက်ခြင်း
- စက်ရုံပတ်ဝန်းကျင်တွင်သစ်ပင်ပန်းမံများစိုက်ပျိုးထားရှိခြင်း

၇။ အရေးပေါ်တုန့်ပြန်ရေး အစီအစဉ်

- မီးသတ်ကိရိယာများနှင့် မီးသတ်နည်းစနစ်များကို လုပ်ငန်းဆောင်ရွက်သည့်နေရာတိုင်းတွင် ထားရှိပေးခြင်းနှင့် သိရှိစေခြင်း
- မီးဘေးကာကွယ်ရေး လမ်းကြောင်းမြေပုံ အသေးစိတ်ကို ပြုလုပ်ထားရှိရန်နှင့် လုပ်သားများကို အသိပေးထားခြင်း
- လုပ်သားများကို ငလျင်လှုပ် လျှင် လုပ်ဆောင်ရမည့် အချက်များကို အသိပေးထားခြင်း
- စက်ရုံ၏ ဆေးဘက်ဆိုင်ရာ အဖွဲ့အစည်းမှ ရှေးဦးသူနာပြုစုနည်းများ အတွက် ပြင်ဆင်ထားရှိခြင်း
- မီးသတ်တပ်ဖွဲ့ ၊ ကယ်ဆယ်ရေးအဖွဲ့များ ဖြင့် လုံခြုံရေးကော်မတီ ဖွဲ့စည်းခြင်း၊ ကော်မတီမှ လုံခြုံရေး စီမံခန့်ခွဲရေး နှင့် ပတ်သက်သည်များ ဆွေးနွေးရန် လစဉ် အစည်းအဝေးများ ပြုလုပ်စေခြင်း

၈။ စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်

၉။ လူမှုအကျိုးတူ ပူးပေါင်းပါဝင်မှု အစီအစဉ် CSR Plan

၁၀။ စွမ်းအင်မြှင့်တင်ခြင်းနှင့် လေ့ကျင့်ရေးအစီအစဉ်

၁၁။ မကြေနပ်မှု ဖြေရှင်းခြင်း နည်းလမ်း

အဆိုပြုလုပ်ငန်း၏ လူထုအကျိုးတူပူးပေါင်းပါဝင်မှုများအဖြစ် အကျိုးအမြတ်၏ ၂% ကို ကျန်းမာရေး၊ ပညာရေးနှင့် နယ်ပယ်ဖွံ့ဖြိုးတိုးတက်ရေးများတွင် ထည့်ဝင်လှူတန်းသွားမည်ဖြစ်ပါသည်။ အဆိုပြုလုပ်ငန်း၏ ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှု့ရေးလုပ်ဆောင်ရမည့် လုပ်ငန်းစဉ်များနှင့် ဖြေရှင်းရမည့်နည်းလမ်းများကိုလဲ ထည့်သွင်းဖော်ပြထားပါသည်။

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း အစီအစဉ်တွင် စက်ရုံ၏ EMP အစီရင်ခံစာ အကြောင်းကို ရှင်းလင်းတင်ပြခြင်းဖြစ်သည်။ တွေ့ဆုံပွဲကို နိုင်ငံရေးကြောင့်လည်းကောင်း ကျန်းမာရေးဆိုင်ရာ Covid - 19 စည်းကမ်းချက်များကြောင့် ၅ ရက်၊ ဇန်နဝါရီလ၊ ၂၀၂၂ ခုနှစ်တွင် လူမှုကွန်ယက်မှပင် ကြေညာခြင်းပြုလုပ်ခဲ့ပါသည်။ အဆိုပါထုတ်ပြန်ကြေငြာခြင်းတွင် အဆိုပြုစက်ရုံဆိုင်ရာ အချက်အလက်များ၊ ပက်သက်သည်များ အကျဉ်းချုံးပြီး တင်ပြထားပါသည်။ အဆိုပြုစီမံကိန်း၏ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်မှု အစီရင်ခံစာ အကျဉ်းကို ဤ (https://drive.google.com/file/d/1GbUHai6ShQYw5sx3haT1IQL2ZhDE6AIm/view?usp=drivesdk) တွင် အသေးစိတ်ဝင်ရောက်ဖတ်ရှုနိုင်ပါသည်။

နိဂုံး

နိဂုံးချုပ်အားဖြင့် ယခုစီမံကိန်းသည် ဆောက်လုပ်ရေးကာလ၊ လုပ်ငန်းလည်ပတ်သည့်ကာလနှင့် လုပ်ငန်းဖျက်သိမ်းသည့် ကာလသုံးခုလုံးတွင် ဒေသခံပြည်သူများကိုအလုပ်အကိုင် အခွင့်အလမ်းများ ဖန်တီးပေးနိုင်သည်။ ကာလသုံးခုလုံးတွင် ဖြစ်ပေါ်လာနိုင်သော ထိခိုက်မှုများကို လျော့ချနိုင်မည့် နည်းလမ်းများနှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အား အကောင်အထည်ဖော်ခြင်းဖြင့် လျော့ချနိုင်သည်။ ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်အား စီမံကိန်း၏ ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေးကို စောင့်ကြပ်ကြည့်ရှုရန် မဖြစ်မနေ အကောင်အထည်ဖော်ပေးရမည်။ စီမံကိန်းကောင်အထည်ဖော်သူသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှ ယခုအစီရင်ခံစာအား စစ်ဆေးပီးနောက် ပြန်လည်ပေးပို့လာသော သဘောထားမှတ်ချက်နှင့် အကြံပြုချက်များကိုလိုက်နာရမည်။ ထို့ပြင် စီမံကိန်းအကောင်အထည်ဖော်သူသည် မြန်မာနိုင်ငံ၏ ပတ်ဝန်းကျင်နှင့် သက်ဆိုင်သောမူဝါဒများ၊ ဥပဒေများ၊ နည်းဥပဒေများ၊ သတ်မှတ်ချက်များကို လိုက်နာရန်လိုအပ်ပါသည်။

Myanwei website www.myanweiconsulting.com

https://www.facebook.com/Myanwei-Environmental-Solutions-Company-Limited.

EXECUTIVE SUMMARY

Introduction

The project is new investment for manufacturing of garments by Contract Manufacturing Process (CMP) basic company from China. The project is issued by the Bago Region Investment Committee (BRIC) on 2 August 2019 with the Endorsement No. (BGO- 023/2019). BRIC notified for the environmental approval and comments of the Ministry of the Natural Resources and Environmental Conservation (MONREC) on the proposed project and had approved the proposal for investment in Manufacturing of Garments on CMP basis under the name of GT Industrial (Myanmar) Co., Ltd as a solely owned foreign investment from the China. The estimated authorized capital investment is about US $ 2.121 million.

According to the Myanmar Environmental Conservation Law (2012), it requires that the proponents of every development project in the country submit either an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA) to Ministry of Natural Resources and Environmental Conservation (MONREC). As per the comments of Environmental Conservation Department (ECD), said project requires an Environmental Management Plan (EMP) to meet the environmental assessment requirements of Notification No. Bago/(EIA) (1516/2020) on 10, July 2020. Therefore, GT Industrial (Myanmar) Co., Ltd commissioned Myanwei Environmental Solutions Co., Ltd. for EMP report study. The specific objectives of this study are;

- ✓ Identify the major impacts that are may arise from the activities of the proposed project on natural environmental and socio-economic environment of the project area
- ✓ Describe the mitigation measures to minimize these impacts
- ✓ Prepare and implement Environmental Management Plan for the project
- ✓ Make sure that EMP is developed sufficiently and sound for the proposed project and
- ✓ Corporate Social Responsibility Plan (CSR Plan) plays an essential part for the improvement of the social welfare of community as well as development of the region.

The proposed project aims to manufacturing of garments under CMP system and 100% export to foreign country.

The main purpose of this EMP report is to obey the rule and regulation of Local and International Environmental Protection programs and harmonize with the environmental and describes the responsible person and his responsibility.

Policy, Legal and Institutional Framework

National Laws and Regulations, international guidelines are referred for Environmental Management Plan of the proposed project.

1. The Constitution Law, 2008
2. The Environmental Conversation Law, 2012
3. The Environmental Conversation Rule, 2014

4. Environmental Impact Assessment Procedure, 2015
5. National Environmental Quality (Emission) Guideline, 2015
6. National Myanmar Environmental Policy, 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 Payment of Wages Act, 1936
13. Yangon City Development Committee Law, 2018
14. The Amended Law for Factories Act, 1951 (2016)
15. The Private Industrial Enterprise Law
16. The Export and Import Law, 2012
17. The Prevention of Hazard from Chemical and Related Substances Law, 2013
18. The Underground Water Act
19. Myanmar Fire Brigade Law, 2015
20. Fire Safety Procedure
21. The Electricity Law, 2014
22. Boiler Law, 2015
23. Labor Dispute Settlement Law, 2012
24. The Law Amending the Settlement of Labor Dispute Law, 2019
25. The Social Security Law, 2012
26. The Employment and Skill Development, 2013
27. The Worker's Compensation Act, 1923
28. The Leave and Holidays Act (1951, partially reused in 2014)

29. The Minimum Wage Law, 2013

30. Public Health Law, 1972

31. Prevention and Control of Communicable Disease Law (1995 Amendment in 2011)

32. Occupational Safety and Health Law, 2019

33. The Law on Standardization

34. လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတတ်သော ဝတ္ထုပြစ္စည်းများဆိုင်ရာ ဥပဒေ၊ (2018)

35. The Motor Vehicles Law, 2015

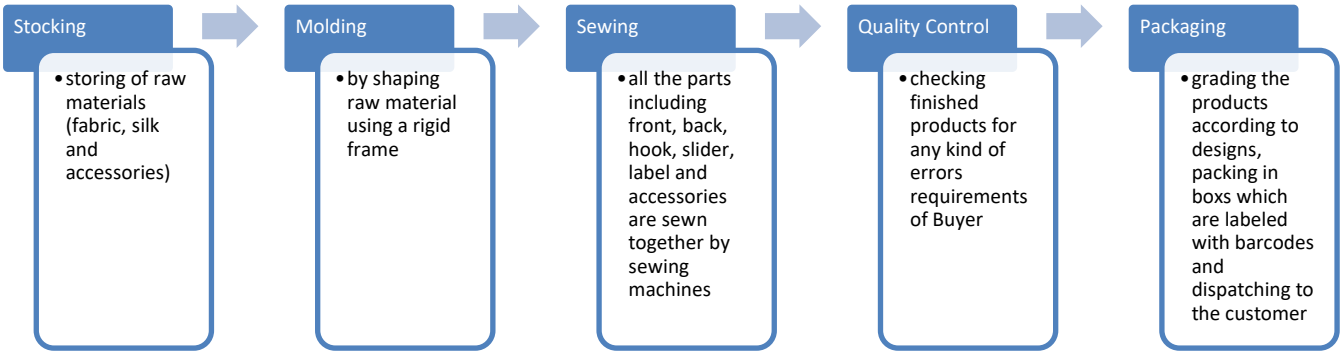
36. The Conversation of Water Resources and River Law, 2006

37. The Commercial Tax Law (1990 Amended 2014)

Project Description

Type of Proposed Business	Manufacturing of Garments on CMP Basis
Type of investment	100% Foreign Investment
Name of Company	GT Industrial (Myanmar) Co., Ltd.
Land lease year	50 years
Total land area	2.5 acres
Type of land	Industrial Land
Construction Period	2 years
Address of Proposed Project	Holding No (56/2), Kwin No.(1173-Bue Lei Inn Kwin), Bue Lei Inn Village Tract, Bago Township.
Contact Person	Daw May Thu Naing (HR Manager) 09-425836940

The proposed project is located at Bue Lei Inn Village Tract, Bago Township. The total area of project site is 2.5 Acres. Main structure is designed into production area for two storey buildings. Transformer room, boiler room, generator room are separated by main factory building structure and also three storey dormitory are. The factory layout plan which is also can be seen in this report. The main product of the GT Industrial (Myanmar) Co., Ltd is garments. The Utilities for proposed factory include electrical power, fuel oil for emergency used generator and water for domestic use. Electric power is used for the purpose of to provide lighting.



Production Process of GT Industrial (Myanmar) Co., Ltd.

Production rate of GT Industrial is produced between first year of operation and 30 years operation as 347,000 to 390,518 dozen annually. It is required of work force (5) foreigners' technician and (190) local employees for first year operation to 30 years operation.

Brief Description of Surrounding Environment

Primary data and secondary data collections are very imported to assess environmental impacts. Primary data collections (environmental quality measurements and monitoring) play an important role for conducting EMP. Therefore. Myanwei Environmental Solutions Co., Ltd. conducted air quality, temperature and humidity, noise level measurement and light pollution measurement on 18 December 2020 and compared with the National Environmental Quality (Emission) Guidelines and described how to reduce the impact and how to maintain the pollutions. Also described the weather conditions, rainfalls, and socio-economic component of the proposed project.

Potential Environmental Impact and Mitigation Measure

The project activities may cause impacts on environmental resources, ecological resources, human and waste disposal. The summary of impacts with respect to project activities and mitigation measures are described as below:

Categories	Source of Impact	Mitigation Measure
Air	• Dust and GHGs emission from vehicles used for transporting raw materials and final products • Emission of smoke from steam boiler • Emission from emergency diesel generator and vehicle movement	• To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. • The factory uses chimney for generator and steam boiler through which the flue gas is emitted for reducing the impact of stack emission on environment. • Ensuring vehicles, compressor and generator are well maintained.
Water	• Production process	• No Mitigation Measure
Soil	• Engine oil leaks, spills at diesel storage and during fuel refueling.	• No Mitigation Measure
Noise and	• Generating noise from the	• No Mitigation Measure

Categories	Source of Impact	Mitigation Measure
Vibration	production machinery	
Flora and fauna on terrestrial and aquatic life	• Operation of the manufacturing of Brassieres, underwear and it's accessories factory	• No Mitigation Measure
Fire	• Poor electrical installations • Waste disposed area raw materials and chemical storage	• To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. • Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. • The emergency fire alarms are installed at the factory for alerting the workers in case of fire. • The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
Occupational Safety	• Accidental cases cause by operating machines. • Unloading, mixing, cutting, pressing and packaging activities. • Accidental cases of thermic fluid heater	• First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. • According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. • Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. • To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.
Health	• Influx of people • Noise from the generating of the emergency generators	• Manage the drainage systems of the factory to prevent health risk of the workers. • The maximum allowable noise level for workers is 90dB(A) for 8hours exposure a day. Thus, adequate protective noise impact measures in the form of ear muffs/ear plugs to the workers working in high noise areas
Solid Waste	• Residual pieces of fabric scraps • from the production lines	• Provides separate garbage bins at each building.

Categories	Source of Impact	Mitigation Measure
	• Waste from packaging materials • Waste from kitchen, dormitory and office.	• All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area • Final wastes should be disposed by using Bago township municipal service.
Liquid Waste	• Septic system and sewage. • Domestic liquid waste disposal from office, kitchen and dormitory.	• Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Waste	• Used oil and lubricant discharged from the maintenance of vehicles and machines.	• Proper inspection and maintenance in storage of hazardous waste. • Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. • The empty chemical containers will hand over to suppliers for recycle or appropriate disposal • The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (eg., DOWA and YCDC)

Environment Management Program

The proposed project of environmental management plan, which need to made the Environmental Management System (EMS). In that plan, it includes not only reducing to the environmental and social-economic impact but also includes the environmental management plan and the monitoring plan. In this EMP to implement the health, safety and occupational for the industry, they need to create a team and to must be implemented that. The EMP for GT Industrial (Myanmar) Co., Ltd has been prepared to address potential issues based upon discussion with factory management, workers, local community's view, stakeholder consultation and from the site visit of experts. The EMP is additional to and compliments the factory's safety management system. The following environmental issues that require environmental management plans based upon the potential impacts of activities by for GT Industrial (Myanmar) Co., Ltd are as follows:

1. Air pollution/Dust Management plan

- The factory must be plant in its premises which reduce the carbon emission by the factory and minimize the air pollution
- Periodic maintenance of generator is conducted
- Prohibiting the burning of waste materials at the project site
- Providing mask to the employees who work in any dusty area
- Installation the windscreens to breakup the wind flow

2. Noise Management Plan

- Building noise insulated generator room and ensure satisfactory maintenance of relevant equipment
- Impose speed limit to track and vehicles at the transportation route.
- Emergency use of diesel generator must be ensured by soundproof
- Noise level monitoring programs must be designed and conducted by trained specialist at production area

3. Solid Waste Management Plan

- The factory does not dispose the any sort of solid wastes on the factory premises or not dump in the surface water like a local pond, canal or river, etc.
- The solid wastes are stored properly and separately in a certain location in proper manner such as cloth scrap waste need to collect at one place and poly/carton waste should collect at another place. Metal/Hazardous material waste such as fudge electric bulbs and empty chemical container is stored another in separate place of storage area.
- Recycle wastes like cloth scrap, carton box, plastic sheet, etc. are hand over to local buyer for reuse and waste-tracking record shall be kept every day.
- The metal or glass waste of electric bulb is taken by the suppliers to recycle them.
- The daily domestic waste of worker hand-over to YCDC waste collector to collect every day
- Daily wastes are stored clearly labeled containers and in such a manner that all related personnel are provided proper training about the relevant issues.

4. Wastewater Management Plan

- Ensure that drainage lines and sewage system of factory and the nearest public drainage are watertight and sufficient capacity
- Regular check and maintain sewerage facility.
- Clean the factory drainage to avoid odor emission and to avoid the block of water flow
- Regularly monitor and check the discharge temperature from boiler wastewater before directly discharge into factory‘s final drainage

5. Energy Management Plan

- Installation of timers and thermostats to control heating and cooling
- Energy saving light installed in different area of the factory for saving energy
- Used of energy saving devices must be installed
- Ensure that good housekeeping measures such as turning off equipment and lights when not in use

6. Water Consumption Management Plan

- Install water meter for internal control of water consumption

- All staff trains and makes aware conservation practices and proper methods of water use must be place in toilets and other areas of water consumption
- The contamination of water is avoided by suitable management of oil and fuel used in machineries and vehicles
- Trees plantation surrounding the factory

7. Emergency Respone and Disaster Management Plan

- The factory management has taken proper measures to handle any emergency situation like fire, earthquake, flood and storm
- Provision and inspection of firefighting equipment and fire hydrant system in all the sections
- A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers
- Periodic inspection of safety relief valve provided with pressure vessels and equipment, preventive maintenance; aware the workers about electric shock by necessary training.
- Regular fire drill operation is conducted
- Workers are informed about what to do in earthquake like stay in a safe place such as under table of desk, not to try move outside during earthquake, workers who will be outside during earthquake shall remain stay out of the building, trees, lump post, etc. Other relevant safety instruction of emergency situation it informed to workers by training
- Workers are aware of dangers from physical hazards such as obstacles covered by floodwater (storm debris, drainage opening, ground erosion) and from displaced reptiles (Snake) or other animals.
- A medical team has been prepared for primary treatment (First Aid)
- Prepare an emergency contact directory consisting contact numbers of nearest fire service, local police station, hospitals, etc. and display it in a place that everybody can see it easy.
- Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management
- Ensure proper training of the employees about the disaster management, fire safety as well as occupational health and safety

8. Environmental Monitoring and Reporting

9. Corporate Social Reponsible (CSR) Plan

10. Capacity Building and training Plan

11. Grievance Redress Mechanism

Public Consulting

Public consultation meeting for GT Industrial (Myanmar) Co., Ltd. celebrated on social media. During the preparation of this report, the third wave of COVID-19 becomes serious in Yangon. The Ministry of Health and Support declared to avoid gathering more than 5 people by closely contacting and to prevent spreading of disease. Thus, the present condition, the project's environmental condition

and the management plans are through the social media of Myanwei Environmental Solution Company Limited Facebook page

(https://drive.google.com/file/d/1GbUHai6ShQYw5sx3haT1IQL2ZhDE6AIm/view?usp=drivesdk)

declared on 5, January 2022. The suggestions, complains and comments from the public, organization and stakeholder are warmly welcome and accept via mailing, comment, telephoning and messengers.

Conclusion & Recommendation

In Conclusion, the environmental management practices, procedures and responsibilities are defined here in to get full compliance with the existing environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar. All the feed backs, desired and needs of local public recorded in public consultation meetings are well addressed and incorporated in formulation of EMP. It has been figured out that, the proposed Garments factory is going to generate local employment opportunities and enhance capabilities and working skills of employees. Consequently, their socio-economic standard is expected to be improved and undertaking corporate social responsibilities (CSR) as recommended. The study further concluded that positive impacts will be of immense benefit to the local community and national development as well.

This is recommended that;

- All appropriate environmental management measures detailed in this report, together with any other environmental management commitments should be implemented throughout the entire life of the factory
- Solid wastes and liquid wastes need to dispose according to Bago Municipal rules and regulation
- Workers should be provided proper training and it should be ensured that workers use PPE during factory operation area.
- Daily, monthly and annual action plan shall be formulated based on this EMP and practiced at operation level.
- Keep full records of environmental management activities and present to annual independent third party environment audit.
- Abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

Finally, the proponent should follow the comments and suggestions made by ECD after reviewing this EMP report. Once concerned authorities approve EMP, effective implementation of EMP by the project proponent is essential. The proponent should abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

1. INTRODUCTION

Environment Management Plan is required for ensuring sustainable development. It should not affect the surrounding environment adversely. The management plan presented in this chapter needs to be implemented by the proposed expansion of GT Industrial (Myanmar) Co., Ltd. The Environment Management Plan (EMP) aims at controlling pollution at source with available and affordable technology followed by treatment measures. Waste minimization and waste recycling measures are emphasized. In addition to the Industry specific control measures, the proposed industry should adopt following guidelines.

1.1. PROJECT BACKGROUND

The project is new investment for manufacturing of Garments on CMP Basis from China. The Bago Region Investment Committee (BRIC) issues the project on 2, August 2019 with the Endorsement No. (BGO- 023/2019). The committee must issue the notification for the environmental approval and comments of the Ministry of the Natural Resources and Environmental Conservation (MONREC) on the proposed project and had approved the proposal for investment in manufacturing of garment on CMP Basis under the name of GT Industrial (Myanmar) Co., Ltd. is located at Holding No(56/2), Kwin No.(1173-Bue Lei Inn Kwin), Bue Lei Inn Village Tract, Bago Township, Bago Region.

According to the Myanmar Environmental Conservation Law (2012), it requires that the proponents of every development project in the country submit either an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA) to Ministry of Natural Resources and Environmental Conservation (MONREC). As per the comments of Environmental Conservation Department (ECD), said project requires an EMP to meet the environmental assessment requirements of Notification No. Bago/EIA (1516/2020) on 10 July 2020.

1.1.1. Project Proponent Profile

This is the information of project proponent from the BRIC's registration that is describing in below Table 1-1 and Table 1-2. The estimated authorized capital investment is 2.121 Million US Dollar (Table 1-2). Organization chart of GT Industrial (Myanmar) Co., Ltd. is presented in Figure 1-1.

Table 1-1 Information of Investor

Investor Name:	MR. XU HAILONG
ID No. :	G 56133809
Citizenship:	Chinese
Address of Registration office:	38th Zhu Huang Road, Jiang Yin City, Jiang Su Province, China.

Table 1-2 Salient Features of the Project

Type of Proposed Business	Manufacturing of Garment on CMP basic
Type of investment	100% foreign investment
Type of Share	Ordinary Share
Type of land	Industrial Land
Total land area	2.5 acres

Total building area	Three Building 352 ft × 185 ft (two storey building) 202 ft × 40 ft (three storey building)
Land lease year	50 years
Construction period	2 years
Operation starting date	50 years investment permit
Address	Holding No. (56/2), Kwin No. (1173-Bue Lei Inn Kwin), Bue Lei Inn Village Tract, Bago Township, Bago Region.
Contact person	(HR Manager) 09-940765868 Email-yadanarpyaephyo1@gmail.com

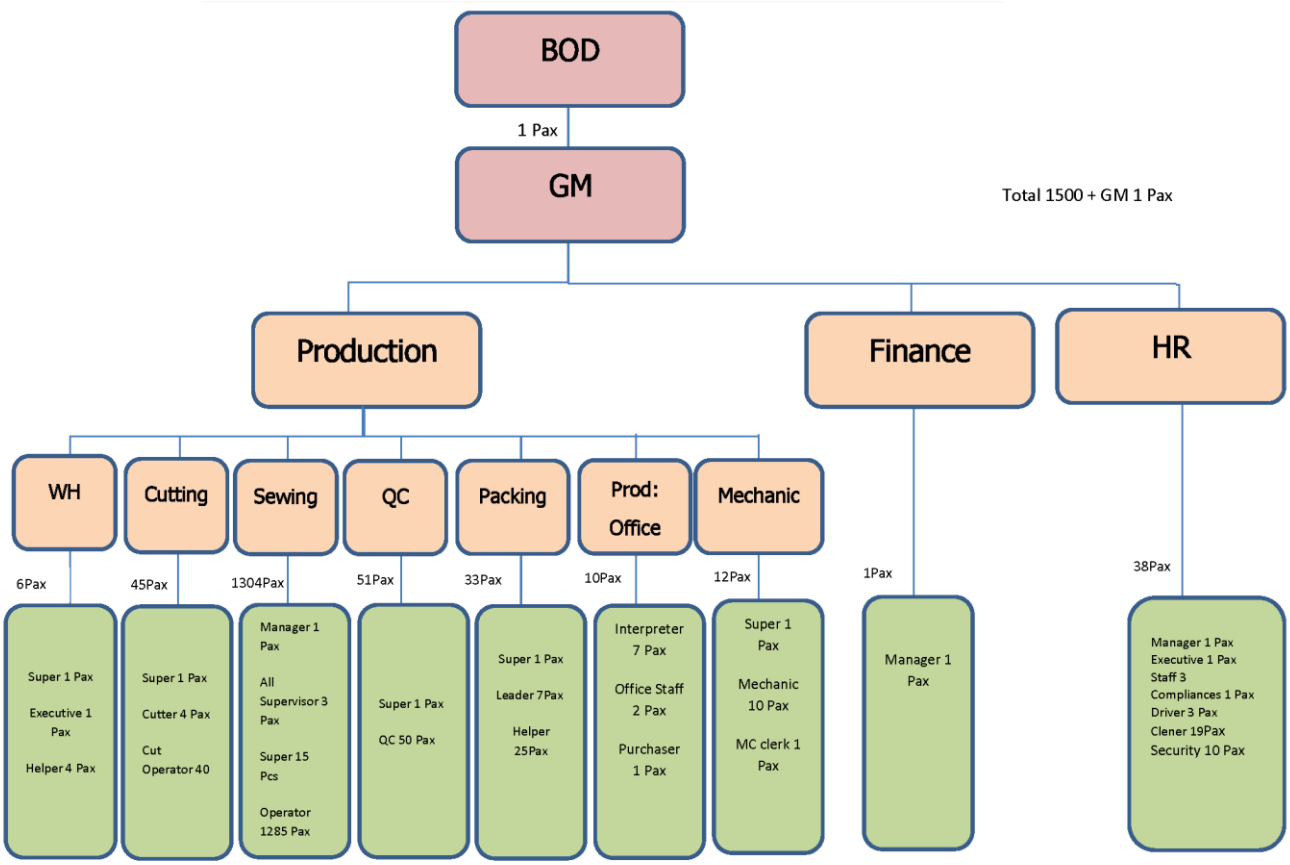


Figure 1-1 Organization chart of GT Industrial (Myanmar) Company Limited

1.1.2. Environmental Consultant Profile

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED prepares the EMP for the proposed project. The field studies were carried out by MYANWEI having experiences in conducting environmental assessments for various types of projects in Myanmar. The MYANWEI team conducted field survey, assessment activities, and prepared the report. A reconnaissance study was performed on the proposed project site and baseline environmental data were also collected from possible sources using the appropriate measuring devices. Data interpretation and analysis were made based on those

collected data for the present and potential future conditions. Suitable measures were proposed for the impacts to be mitigated to reduce to acceptable ones. The environmental study was carried out by the study team and the following is a summary of team member's responsibilities during the study period.

Myanwei Environmental Solutions Company Limited	No. 36-38, 9th floor (A), Grand Myay Nu Condo, Myay Nu Street, Sanchaung Township, Yangon, Myanmar.	01-501221 env@myanweiconsulting.com www.myanwweiconsulting.com.

Table 1-3 Member of EMP Study Team

Name	Qualification	Responsibility
MYANWEI ENVIRONMENTAL SOLUTIONS Limited	**Transition Consultant Registration Certificate No. 0069**	**EIA Organisation**
Mr. Lin Htet Sein	MSc (Regional Geology) BSc (Hons) Geology Dip in Environmental Science Certificate in Environmental & Social Assessment **TCR No. 0048**	Project Director, Environmental consultant, project management
Dr. Hein Lynn Aung	M.B, B.S (Yangon), Business Management (International Collage of Management Sydney, Australia)	Project Director, Public health consultant, project management
Ms. Wah Wah Zaw	B.E Material and Metallurgy Engineering Diploma in Environmental Planning and Management M.S Environmental Planning and Management	Senior Environmental Consultant, Social and Environmental Research, Quality control, Environmental planning and Management
Ms. Khin Thu Zar Myint	B.E(Materials and Metallurgy) Dip in Environmental Planning and Management	Senior Environmental Consultant, Social Research, Public consultation, social economic investigation
Ms. Su Myat Hlaing	B.E. Civil Engineering B. Tech Civil Engineering	Environmental Engineer
Mr. Kyaw Win Han	B.E. Chemical Engineering B. Tech Chemical Engineering	Junior Environmental Consultant, Team leader of baseline survey, monitoring measure
Mr. Aung Kyaw Moe	B.E. Chemical Engineering B. Tech Chemical Engineering	Junior Environmental Consultant, monitoring measure, document administration
Mr. Saw Yan Naung	B.E. Chemical Engineering B. Tech Chemical Engineering	Junior Environmental Consultant, monitoring measure, document administration
Mr. Myat Ko Ko	B.Sc (Hons) Geology M.Sc. Geology (Economic and Mining) Certificate of Environment Management	Junior Environmental Consultant, monitoring measure, document administration

Name	Qualification	Responsibility
Mr. Htoo Nanda Aung	B.Sc (Forestry)	Junior Environmental Consultant, monitoring measure, document administration
Mr. Si Yan Hein	B.Sc (Geology)	Junior Environmental Consultant, monitoring measure, document administration
Mr. Kaung Sett Lwin	B.Sc (Hons) Geology	Junior Environmental Consultant, monitoring measure, document administration

1.2. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

The primary purpose of the EMP is to provide an easily interpreted reference document which ensures that the project environmental commitments, safeguards and mitigation measures from the environmental planning documents, project approvals and project implementation. It aims to minimized impacts associated with the operation of the project. The purpose of operational EMP is to:

- Define details of who, what, where and when environmental management and mitigation measures are to be implemented
- Provide government and their stakeholders batter on-site environmental management control over the life of operation
- Ensure that the commitments made as a part of the project's EMP are implemented throughout the project life
- Ensure the environmental management detail is captured and documented at all stages of the project

1.2.1. **This EMP documents aims**

- ❖ Provide environmental management plans that minimize the environmental impact of the works and identify those responsible for its implementation.
- ❖ Define the monitoring program which assesses the implementation

2. POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

This section provides a brief summary of relevant national environmental legislations established by the MONREC and overview of current local and international environmental and social policies including related international or regional convention for the proposed project.

2.1. MYANMAR REGULATORY FRAMWORK

Myanmar has 24 ministries under the Office of the President as of May 2016. The leading ministries in-charge of environmental and social considerations is the Environmental Conservation Department (ECD) of the MONREC that was reorganized Ministry of Environmental Conservation and Forestry (MOECAF) in April 2016.

2.1.1. Laws and Regulations Related to Environmental and Social Considerations

Requirements related to environmental (and social) impact management for development projects are described in Table 2-1.

Table 2-1 List of Myanmar's Law relating to environmental management

Law and Regulation	Description
National Environmental Policy of Myanmar, (Notification No. 26/94 dated 5 December 1994)	To achieve harmony and balance between socioeconomic, natural resources and environment through the integration of environmental considerations into the development process enhancing the quality of the life of all its citizens.
Constitution 2008	
Section 37, (a)	The Union is the ultimate owner of all lands and all-natural resources above and below the ground, above and beneath the water and in atmosphere in the Union.
Section 37, (b)	The Union shall permit citizens rights of private property, right of inheritance, right of private initiative and patent in accord with the laws.
Section 372	The Union guarantees the right to ownership, the use of property and the right to private invention and patent in the conducting of business if it is not contrary to the provisions of this Constitution and the existing laws.
Section 45	The Union shall protect and conserve natural environment.
Section 390, (a),(b),(c),(d)	Every citizen has the duty to assist the Union in preserving and safeguarding the cultural heritage, conserving the environment, striving for the development of human resources, and protecting and preserving the public property.
Environmental Conservation Law, 30 March 2012	
Objectives	to contract a healthy and clean environmental and to conserve natural and cultural heritage for the benefit of present and future generations; to maintain the sustainable development through effective management of natural resources and to enable to promote international, regional and bilateral cooperation in the matters of environmental conversation.
Section 3	c) to enable to emerge a healthy and clean environment and to enable to conserve natural and cultural heritage for the benefit of present and future generations; (d) to reclaim ecosystems as may be possible which are starting to degenerate and disappear; (e) to enable to manage and implement for decrease and loss of natural

	resources and for enabling the sustainable use beneficially;
Provisions of Duties and Powers relating to the Environmental Conservation of the Ministry: Section 7	(a) To specify categories and classes of hazardous wastes generated from the production and use of chemicals or other hazardous substances in carrying out industry, agriculture, mineral production, sanitation and other activities; (b) To prescribe categories of hazardous substances that may affect significantly at present or in the long run on the environment; (c) To promote and carry out the establishment of necessary factories and stations for the treatment of solid wastes, effluents and emissions which contain toxic and hazardous substances; (j) To prescribe the terms and conditions relating to effluent treatment in industrial estates and other necessary places and buildings and emissions of machines, vehicles and mechanisms; (m) To lay down and carry out a system of EIA and SIA as to whether or not a project or activity to be undertaken by any Government department, organization or person may cause a significant impact on the environment; (o) To manage to cause the polluter to compensate for environmental impact, cause to contribute fund by the organizations which obtain benefit from the natural environmental service system, cause to contribute a part of the benefit from the businesses which explore, trade and use the natural resources in environmental conservation works.
Chapter VI Environmental Quality Standards: Section10	The Ministry may, with the approval of the Union Government and the Committee, stipulate the following environmental quality standards: (a) suitable surface water quality standards in the usage in rivers, streams, canals, springs, marshes, swamps, lakes, reservoirs and other inland water sources of the public; (b) water quality standards for coastal and estuarine areas; (c) underground water quality standards; (d) atmospheric quality standards; (e) noise and vibration standards; (f) emissions standards; (g) effluent standards; (h) solid wastes standards; (i) other environmental quality standards stipulated by the Union Government.
Section 14	A person causing a point source of pollution shall treat, emit, discharge and deposit the substances which cause pollution in the environment in accord with stipulated environmental quality standards.
Section 15	The owner or occupier of any business, material or place which causes a point source of pollution shall install or use an on-site facility or controlling equipment in order to monitor, control, manage, reduce or eliminate environmental pollution. If it is impracticable, it shall be arranged to dispose the wastes in accord with environmentally sound methods.
Section 16	A person or organization operating business in the industrial estate or business in the SEZ or category of business stipulated by the Ministry: (a) is responsible to carry out by contributing the stipulated cash or kind in the relevant combined scheme for the environmental conservation including the management and treatment of waste; (b) shall contribute the stipulated users 'charge s or management fees for the environmental conservation according to the relevant industrial estate, SEZ and business organization;

	(c) shall comply with the directives issued for environmental conservation according to the relevant industrial estate, SEZ or business.
Section 24	The project proponent has to allow relevant governmental organization or department to inspect whether performing is conformity with the terms and condition include in prior permission, stipulated by the ministry, or not.
Section 25	The project proponent has to comply with the terms and conditions include in prior permission.
Section 29	The project proponent has to abide by the stipulations included in the rules, regulations, by-law, order, notification and procedure, which are issued by said law.
Environmental Conservation Rules, 2014	
Rules 58	The Ministry shall form the EIA Report Review Body with the experts from the relevant Government departments, organizations.
Rules 59	The Ministry may assign duty to the Department to scrutinize the report of EIA prepared and submitted by any organization or person relating to EIA and report through the EIA Report Review Body.
Rules 61	The Ministry may approve and reply on the EIA report IEE or EMP with the guidance of the Committee.
Sub-rule (a) of rule 68	The project proponent has to avoid emit, discharge or dispose the materials which can pollute to environment, or hazardous waste or hazardous material prescribed by notification in the place where directly or indirectly injure to public.
Sub-rule (b) of rule 68	The project proponent has to avoid performing to damage to ecosystem and the environment generated by said ecosystem.
Environmental Impact Assessment Procedure (December 2015)	
Objectives	The project proponent has to be liable for all adverse impacts caused by doing or emitting of project owner or contractor, sub-contractor, officer, employee, representative or consultant who is appointed or hired to perform on behalf of project owner, under sub-paragraph (a) of paragraph 102. The project proponent has to support, after consulting with effected persons by project, relevant government organization, government department and other related persons, to resettlement and rehabilitation for livelihood until the effected persons by the project receiving the stable socio-economy which is not lower than the status in pre-project, under sub-paragraph (b) of paragraph 102. The project proponent has to fully implement all commitments of project and conditions included in EMP. Moreover, the project proponent has to be liable for contractor and sub-contractor who perform on behalf of him/her have to fully abide by the relevant laws, rules, this procedure, EMP and all conditions, under paragraph 103. The project proponent has to be liable and fully & effectively implement all requirements included in ECC, relevant laws and rules, this procedure and standards under rule 104. The project proponent has to inform the completed information, after specifying the adverse impacts caused by the project, from time to time, under paragraph 105. The project proponent has to continuously monitor all adverse impacts in the pre-construction phrase, construction phrase, operation phrase, suspension phrase, closure phrase and post-closure phrase, moreover has to implement the EMP with abiding the all conditions included in ECC, relevant laws & rules and this procedure, under paragraph 106. The project proponent has to submit, as soon as possible, the failures of his

	or her responsibility, other implementation, ECC or EMP. If dangerous impact caused by this failure or failure should be known by the Ministry the project proponent has to submit within 24 hours and other than this situation has to submit within 7 days from knowing it, under paragraph 107. The project proponent has to submit the monitoring report dually or prescribed time by Ministry in line with the schedule of EMP, under paragraph 108. The project proponent has to prepare the monitoring report in accord with the rule 109. The project proponent has to show this monitoring report in public place such as library, hall and website and office of project for the purpose to know this report by public within 10 days from the date which the report is submitted to the Ministry. Moreover, has to give the copy of this report, by email or other way which way agreed with the asked person, to any asked person or organization, under paragraph 110. The project proponent has to allow inspector to enter and inspect in working time and if it is needed by Ministry has to allow inspector to enter and inspect in the office and work-place of project and other work-place related to this project in any time, under paragraph 113. The project proponent has to allow inspector to immediately enter and inspect in any time if it is emergency or failure to implement the requirements related to social or environment or caused to it, under paragraph 115. The project proponent has to allow inspector to inspect the contractor and sub-contractor who implement on behalf of project, under paragraph 117.
Screening: Section 23	a) The project proponent shall submit the Project Proposal to the Ministry for Screening. b) The Ministry will send the Project Proposal to the Environmental Conservation Department to determine the need for environmental assessment. c) Following the preliminary Screening and verification that the Project Proposal contains all required documents and related materials, subject to Articles 8, 9, 10, 11, 26 and 27 the Department shall make a determination in accordance with Annex 1 ‗ Categorization of Economic Activities for Assessment Purposes ', taking into account Article 25 and the additional factors listed in Article 28 in order to designate the Project as one of the following, and then submit it to the Ministry: i) An EIA Type Project, or ii) An IEE Type Project, or iii) A Non IEE or EIA Type, and therefore not required to
National Environmental Quality (Emission) Guidelines (NEQG) (December 2015)	
Objectives	To provide the basis for regulation and control of noise and vibration, air emissions, and liquid discharges from various sources in order to prevent pollution for purposes of protection of human and ecosystem health.
National Environmental Policy of Myanmar (2019)	
National Environmental Policy Vision & mission	Vision A clean environment, with healthy and functioning ecosystem, that ensures includes development and wellbeing for all people in Myanmar. Mission To establish national environmental policy principle for guiding environmental protection and sustainable development and for mainstreaming environmental consideration into all polices, laws, regulation, plans, strategic, programmes and projects in Myanmar.

Foreign Investment Law, 2012	
Section 8	(a) To support the primary objectives of the national economic development plan, and for businesses that cannot yet be run by the State and citizens or businesses that have insufficient funds and technology. (b) Development of employment activities. (l) Protection and conservation of the environment. (q) Appearing the required modern services for the Union and citizens.
Section 17	(a) To abide by the existing laws of the Republic of the Union of Myanmar. (b) To carry out the business by forming a company under the existing laws of Myanmar by the investor. (h) To carry out not to cause environmental pollution or damage in accord with existing laws in respect of investment business. (k) To carry out the systematic transfer of high technology relating to the business which are carried out by the investor to the relevant Basis, departments or organizations in accord with the contract.
Foreign Investment Rule, 2013	
Rule 54	The promoter or investor shall: (a) comply with Environmental Protection Law in dealing with environmental protection matters related to the business; (b) shall carry out socially responsible investment in the interest of the Union and its people; (c) shall co-operate with authorities for occasional or mandatory inspection; (d) shall exercise due diligence to be in conformity and harmony with norms and standards prescribed by relevant Union Ministry in conducting construction of factories, workshops, buildings, and other activities; (e) shall enforce Safety and Health
Myanmar Investment Rules, 2017	
Rule 202	The project proponent has to comply with the conditions of the permit issued by the MIC and applicable laws when making the investment
Rule 203	The project proponent has to fully assist while negotiating with the authority for settling the grievance of the local community which has been affected due to investment
Rule 206.	The project proponent has to submit the passport, expert evidence or document of degree and profile to the MIC office for approval if decide to appoint a foreigner as senior management, technician expert or consultant according to subsection (a) of section 51 of Myanmar Investment Law
Myanmar Insurance Law (1993)	Section 15 - If the project proponent uses the owned vehicles the project owner has to ensure the insurance for the injured person. Section 16 - The project proponent has to ensure insurance to compensate for general damages because the project may cause damages to the environment and injury to the public.
Payment of Wages Law (2016)	
Section 3 & 4	The project proponent has to pay the wages in accord with section 3 and 4 of said law
Section 5	The project proponent has to submit with the agreements of employees & reasonable ground to the department if it is difficult to pay because of force majeure included in a natural disaster
Section 7-13	The project proponent has to abide by the provisions of section 7 to 13 in

	the chapter (3) in respect of deduction from wages.
Section 14	The project proponent has to pay the overtime fees, prescribed by law, to the employees who work over working hours
Yangon City Development Committee Law (2018)	
Section (317)	The proponent shall not block the natural river channel, change the course, and disrupt the water channel, filling with soil within the city boundaries without the consent of the Committee
Section (318)	The project proponent shall not construct buildings, factories, and industries without sewage, toilet, septic tanks, and wastewater treatment system
Section (322)	The project proponent is not allowed to make activities that will produce noise pollution, water pollution, air pollution, and soil pollution to impact the environment within the city's boundaries
The Amended Law for Factories Act, 1951 (2016)	
Hygiene in Working Environment: Section 3	Mentions responsibilities of employer and manager regarding waste disposal, ventilation, extreme temperature, dust and gas generation, minimum space for each worker, lighting, portable drinking water and toilets for employees.
Safety in Working Environment: Section 4	States responsibilities of employer and manager concerning with machine guarding, personal protective equipment, housekeeping, aisles and exits, chemical storage and fire protection system to avoid accident.
The Private Industrial Enterprise Law, 1990	
Basic Principles: Section 3	Private Industrial Basis shall be conducted in accordance with the following basic principles: - (a) to enhance the higher proportion of the manufacturing value added in the gross national product and value of services, and to increase the production of the respective economic Basis which are related to the industrial enterprise; (b) to acquire modern technical know-how for raising the efficiency of industrial Basis and to establish the sale of finished goods produced by the industrial enterprise not only in the local market, but also in the foreign market; (d) to cause narrowing down of the gap between rural development and urban development by causing the development and improvement of industrial Basis; (e) to cause opening up of more employment opportunities; (f) to cause avoidance of or reduction of the use of technical know-how which cause environmental pollution; (g) to cause the use of energy in the most economical manner.
The Export and Import Law (2012)	
Objectives	The objectives of this law are as follows: a) To enable to implement the economic principles of the State successfully. b) To enable to lay down the policies relating to export and import that supports the development of the State. c) To cause the policies relating to export and import of the State and activities are to be in conformity with the international trade standards. d) To cause to be streamlined and speedy in carrying out the matters relating to export and import.

Prohibitions: Section 5	No persons shall export or import restricted, prohibited and banned goods.
Prohibitions: Section 6	Without obtaining license, no person shall export or import the specified goods which are to obtain permission.
Prohibitions: Section 5	A person who obtained any license shall not violate the conditions contained in the license.
The Prevention of Hazard from Chemical and Related Substances Law, 2013	
This law was enacted with the objectives of: a. To protect from being damaged the natural environment resources and being hazardous any living beings by chemical and related substances; b. To supervise systematically in performing the chemical and related substances business with permission for being safety; c. To perform the system of obtaining information and to perform widely educative and research for using the chemical and related substance systematically; d. To perform the sustainable development for the occupational safety, health and environmental conservation. Regarding the chemical management and storage, currently, regulations governing chemicals management are divided between various Acts, mostly dating from colonial times; hence the legislation is in many respects related to the British framework. The Factory Act and the Public Health Act contain the provisions for chemicals management and storage. Some chemicals are likely to require permits.	
Underground Water Act	
The underground water act enacted on the date of 21st June in 1930 whereas it is expedient to conserve and protect underground sources of water supply in the Union of Burma. This act prohibits sinking of a tube for the purpose of obtaining underground water except under and in accordance with the terms of a license granted by the water officer. Township Officer or sub-divisional officer had power to close a license tube after exercising jurisdiction over the local area concerned and the expense of such closure shall be recoverable from the owner of the tube as if it were an arrear of land-revenue.	
Myanmar Fire Brigade Law (2015)	
The Pyidaungsu Hluttaw enacted this law by Law No.11/2015 on the date of 17th March, 2015 with the following objectives: (a) to take precautionary and preventive measures and loss of state own property, private property, cultural heritage and the live and property of public due to fire and other natural disasters (b) to organize fire brigade systemically and to train the fire brigade (c) to prevent from fire and to conduct release work when fire disaster, natural disaster, epidemic disease or any kind of certain danger occurs (d) to educate, organize and inside extensively so as to achieve public corporation (e) to participate if in need for national security, peace for the citizens and law and order	
Section-8 Fire Safety Procedures	
Rule17	The relevant Government Department or organization shall, for the purpose of precaution and prevention obtain the approval of the Fire Force Department before granting permission for the following cases: a. Constructing three-storied and above buildings market and condominium buildings, b. Operating hotel, motel, guest house enterprise c. Constructing factory, workshop, storage facilities and warehouse d. Operating business expose to fire hazard by using in inflammable materials or explosive materials e. Producing and selling fire-extinguishing apparatuses f. Doing transport business, public utility vehicles train, airplane, helicopter, vessel, ship, tonkin tug

Rule18	The relevant government department or organization shall obtain the opinion of the Fire Services Department for the purpose of fire precaution and prevention, when laying down plans for construction for town, village and downtown or village development plans
The Electricity Law (2014)	
In 2014, the new Electricity Law, a comprehensive piece of legislation covering licensing, a new regulatory commission, standards, inspection, tariff, and restrictions, replaced the Electricity Law of 1984. The Electricity Law divides projects into “small” (up to 10 MW), “medium” (between 10 MW to 30 MW) and large (upwards of 30 MW); the states and regions can issue permits for small and medium power plants. In case these plants are not connected to the national grid, the Union Government Ministry is not the primary authority involved. The authorities have a legal right to use land for the purpose of power plants under the Electricity Law, and have the right to expand and maintain their facilities. The law also provides that the authorities can build transmission lines in accordance with existing laws.	
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
The Pyidaungsu Hluttaw hereby enacts this Law for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly.	
The Social Security Law (2012)	
The Social Security Law, enacted in 2012, was amended the Social Security Act in 1954. It stipulates the formation and implementation of social security systems.	
Section 53(a)	The employers and workers shall co-ordinate with the Social Security Board or insurance agency in respect of keeping plans for safety and health in order to prevent employment injury, contracting disease and decease owing to occupation and in addition to safety and educational work of the workers and accident at the establishment;
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
This law was enacted for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. It stipulates that employer in which more than 30 workers are employed shall form the workplace coordinating committee consisting of the representatives of workers and the representatives of employer.	
Section 23	A party, employer or worker, may complain individual dispute relating to his grievance to the Conciliation Body and if he is not satisfied with the conciliation of such body in accord with stipulated manners, may apply to the competent court in person or by the legal representative.
Section 24	The relevant Conciliation Body shall, in respect of the collective dispute known or received by the complaint of either party, employer or worker, in respect of the dispute; information sent by the Minister or the Region or State Government or any other means, carry out as follows: (a) conciliating so as to be settled within three days, not including the official holidays, from the day of knowing or receipt of such dispute; (b) concluding mutual agreement if the settlement is reached in conciliating under sub-section (a), before the Conciliation Body.
Section 25	The Conciliation Body shall refer the collective dispute which does not reach settlement to the relevant Arbitration Body and inform the persons relating to the dispute.
Section 38	No employer shall fail to negotiate and coordinate in respect of the complaint within the prescribed period without sufficient cause.
Section 39	No employer shall alter the conditions of service relating to workers concerned in such dispute at the consecutive period before commencing the dispute within the period under investigation of the dispute before the Arbitration Body or Tribunal, to affect the interest of such workers

	immediately.
Section 40	The project proponent has to not close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal
Section 51	The project proponent has to pay the compensation decided by Tribunal f violates any act or any emission to omission to damage the interest of labour by reducing of product without efficient cause.
Section 46	Any employer who violates any prohibition contained in sections 38 and 39 shall, on conviction, be punished with a fine for a minimum of one-lakh kyats.
The employment and skill development (2013)	
This law was enacted for safeguarding the right of workers or having skillful of workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. Employer shall conduct occupational training to enhance the skills of workers.	
Section 5	The project proponent has to appoint employees with the contract in line with the provision of section 5 of said law.
Section 14	Employer shall conduct occupational training to enhance the skills of workers who are to be employed as well as workers who are presently employed in accordance with the requirements of the enterprise and the policy of the Skills Development Agency.
The Worker's Compensation Act, 1923	It stipulates that employer is required to make payments to employees who become injured or who die in any accidents arising during and in consequence of their employment. Such compensation also must be made for diseases which arise as a direct consequence of employment, such as carpal tunnel syndrome.
The Payment of Wages Act, 1936	The Payment of Wage Act defines the payment obligation to the workers employed in the factories or railway administration. It stipulates the method of payment stating that the payment should be made in cash on a regular payday, and allows legal action against delayed payment or un-agreeable deduction.
The Leave and Holidays Act (1951, partially revised in 2014)	This act has been used as the basic framework for leaves and holidays for workers with minor amendment in 2006 and 2014. This defines the public holidays that every employee shall be granted with full payment. It also defines the rules of leaves for workers including medical leave, earned leave and maternity leave.
The Minimum Wage Law (2013)	The minimum wage law, passed in March 2013, was replaced the 1949 Minimum Wage Act. The law provides a framework for minimum wage determination: the presidential office establishing a tripartite minimum wage committee shall decide minimum wage with industrial variation based on a survey on living costs of workers possibly every two years. This also stipulates equal payment.
Public Health Law (1972)	**Chapter 2; Prevention of Public Health**
Objectives	To ensure the public health include not only employees but also resident people and cooperation with the authorized person or organization of health department. This law focuses as follows The project owner has to cooperate with the authorized person or organization in line with the section 3 and 5 of said law. The project proponent has to abide by any instruction or stipulation for public health under the section 3 of said law. The project proponent has to allow any inspection, anytime, anywhere if it is needed under the section 5 of said law.
Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)	

Chapter 2 Prevention	4. When a Principal Epidemic Disease of a Notifiable Disease occurs; Immunization and other necessary measures shall be undertaken by the Department of Health, in order to control the spread there of; The public shall abide by measures undertaken by the Department of Health under sub-section (a).
Chapter 4 Environmental Sanitation	For prevention of the outbreak of Communicable Disease and effective control of Communicable Disease when it occurs, the public shall under the supervision and guidance of the Health Officer of the relevant area, undertake the responsibility of carrying out the following environmental sanitation measures; - Indoor, outdoor sanitation or inside the fence outside the fence sanitation; Well, ponds and drainage sanitation; Proper disposal refuse and destruction there of by fire; Construction and use of sanitary latrines; Other necessary environmental sanitation measures.
Occupational Safety and Health Law (2019)	
Purpose:	To effectively implement measures related to safety and health in every industry and to set occupational safety and health standards;
Section-26 Sub-section (e)	The project proponent has to provide adequate and relevant personal protective equipment to workers free of charge and make them wear it during work so as not to expose workers to any serious occupational diseases or hazards.
Section-26 Sub-section (1)	The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards.
Section-30 Sub-section (a)	The worker shall wear or use at all times any protective clothes, equipment and tools provided by the employer for the purpose of safety and health.
Section-30 Sub-section (d)	The worker shall proper and systematic use any equipment and tools, machines, any parts of the machines, vehicles, electricity and other substances being used at the workplace.
Section-30 Sub-section (e)	The worker shall take reasonable care for the safety and health of himself/ herself and of other persons who may be affected by his/ her acts or omissions at work.
The law on Standardization	
Objectives	The Objectives of this Law are as follows: to enable to determine Myanmar Standard to enable to support export promotion by enhancing quality of production organizations and their product, production processes and services to enable to protect the consumers and user by guaranteeing imports and products are not lower than prescribed standard, and safe from health hazards to enable to support protection of environment related to products, production process and services from impact, and conservation of natural resources to enable to protect manufacturing, distributing and importing the disqualified goods which do not meet the prescribed standard and those which are not safe and endangered to the environment to support on establishing the ASEAN Free Trade Area and to enable to reduce technical barriers to trade to facilitate technological transfer and innovation by using the standards for the development of national economic and social activities in accordance

	with the national development programme.
Chapter 7 Taking Action by Committee No. 19	The committee may, if it is found out that holder of certificate of certification violates any term or condition contained in the relevant recommendation, pass any of the following administrative order: warning suspending the certificate of certification for limited period cancelling the certificate of certification
လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သောဥတ္တုပစ္စည်းများဆိုင်ရာဥပဒေ (၂၀၁၈)	
ရည်ရွယ်ချက်	လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဥတ္တုပစ္စည်းများကို စနစ်တကျပြုလုပ်ခြင်း၊ တင်သွင်းခြင်း၊ သယ်ယူခြင်း၊ သိုလှောင်ခြင်းနှင့် သုံးစွဲခြင်းတို့ပြုနိုင်ရန်၊ ယမ်းဘီလူးနှင့် ဆက်စပ်သုံးပစ္စည်းများ အသုံးပြုသည့် လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်း၍ လုံခြုံမှုရှိစေရန်၊ လုပ်ငန်းခွင်သုံး ပေါက်ကွဲစေတက်သော ဥတ္တုပစ္စည်းများ ပြုလုပ်သုံးစွဲမှုများကို စနစ်တကျ ကြီးကြပ်နိုင်ရန်။
အခန်း ၇ တားမြစ်ချက်များ အမှတ် ၁၈	လိုင်စင်ရရှိသူနှင့် ခွင့်ပြုချက်ရရှိသူ မည်သူမျှ စစ်ဆေးရေးအရာရှိချုပ် သို့မဟုတ် စစ်ဆေးရေးအရာရှိ၏ စစ်ဆေးခြင်းကို ခံယူရန် ငြင်းပယ်ခြင်းမပြုရ။
အမှတ် ၁၉ (ခ)	ပုဒ်မ ၈ အရ ကာကွယ်ရေးဌာနကောင်စီ အမှုဆောင်အဖွဲ့၏ အတည်ပြုချက်မရရှိဘဲ လုပ်ငန်းခွင် ပေါက်ကွဲစေတက်သော ဥတ္တုပစ္စည်းများကို ဖျက်ဆီးခြင်းမပြုရ။
အမှတ် ၁၉ (ဂ)	ဤဥပဒေအရ ထုတ်ပြန်သည့် နည်းဥပဒေ၊ စည်းမျဉ်း၊ စည်းကမ်း၊ အမိန့်ကြော်ငြာစာ၊ အမိန့်နှင့် ညွှန်ကြားချက်များနှင့်အညီ ဆောင်ရွက်ရန် ပျက်ကွက်ခြင်း မရှိစေရ။
The Motor Vehicles Law (2015)	
Objectives	When the constructions periods and if it is needed in operation and production period for all vehicles • The project proponent has to promise to abide by the nearly all provisions of said law and rules, especially the provisions related to air pollution, noise pollution and life safety.
The Conservation of Water Resources and Rivers Law (2006)	
Aims	The aims of this Law are as follows: to conserve and protect the water resources and rivers system for beneficial utilization by the public; to smooth and safety waterways navigation along rivers and creeks; to contribute to the development of State economy through improving water resources and river system; to protect environmental impact.
Chapter 5 Prohibitions No. 8	No person shall: (a) carry out any act or channel shifting with the aim to ruin the water resources and rivers and creeks. (b) cause the wastage of water resources wilfully.
No. 10	No person shall anchor the vessels where vessels are prohibited from anchoring in the rivers and creeks.
No.11 (a)	No person shall: dispose of engine oil, chemical, poisonous material and other materials which may cause environmental damage, or dispose of explosives from the bank or from a vessel which is plying, vessel which has

	berthed, anchored, stranded or sunk.
No. 12	No person shall carry out growing of garden, digging, filling, silt trapping, closing pond, dyke building or erecting spur in the river-creek boundary, bank boundary and waterfront boundary without the permission of the relevant government department and organization.
No. 15	No person shall carry out the construction of switchback, dockyard, wet dockyard, water-tight dockyard, building of jetty, pier, landing stage or vessel landing by drainage in the river-creek boundary, bank boundary and waterfront boundary without the permission of the Directorate.
The Commercial Tax Law (1990) Amended 2014	
Chapter 5 Registration and Intimation of Commencement of Enterprise 11 (b)	Any Person who commences operation of a goods production enterprise or service enterprise shall furnish letter of intimidation on the commencement of the operation as such to the relevant Township Revenue Officer as stipulated by regulations.
Chapter 6 Monthly Payment of Tax and Sending of Three-Monthly Return 12 (a)	Any person who has taxable proceed of sale or receipt from service within a year, shall pay due monthly tax within ten days after the end of the relevant month. Moreover, a three-monthly return shall be furnished to the relevant Township Revenue Officer within one month after the end of relevant three-month.
12 (b)	The Township Revenue Officer may intimate any person to pay due monthly tax and send three-monthly return if there is cause to consider that he has taxable proceed of sale or receipt from service within a year.
12 (c)	If it is failed to pay tax under sub-section (a) or (b), or if there is cause to consider that the tax paid is less than the tax payable, the Township Revenue Officer may, based on the information received, estimate and claim the tax payable or the additional tax payable.
12 (d)	The tax paid under sub-section (a), (b) or (c) shall be set-off from the tax due in the assessment.
12 (e)	The tax payable on goods imported under sub-section (c) of section 4 of the Law shall be collected together with the customs duties by the Customs Department in accord with the manner of collecting customs duties.
မြန်မာနိုင်ငံအာမခံလုပ်ငန်းဥပဒေ (၁၉၉၃)	
ရည်ရွယ်ချက်	ဖြစ်ပျက်တတ်သော ဘေးအန္တရာယ်များကြောင့် ပြည်သူများ ကြုံတွေ့နိုင်သည့်လူမှုရေး၊ စီးပွားရေး နစ်နာဆုံးရှုံးများကို နှစ်ဦးနှစ်ဖက်သဘောတူညီချက်အရ အာမခံထားခြင်းဖြင့် ငွေကြေးပေြလည်မှုရရှိစေရန်၊ လူတစ်ဦးစီအလိုက်အသက်အာမခံထားခြင်းဖြင့် ငွေစုဆောင်းသည့် အလေ့အထတိုးပွားစေပြီး နိုင်ငံတော်၏အရင်းအနှီးစုဆောင်းမှုကို အထောက်အကူပြုစေရန်၊ လူမှုရေး၊ စီးပွားရေး၊ ဖွံ့ဖြိုးတိုးတက်လာသည်နှင့်အညီ လိုအပ်လာမည့် အာမခံအကာအကွယ်အမျိုးမျိုး ကို ထိရောက်စွာ ဆောင်ရွက်ပေးနိုင်ခြင်းဖြင့် အာမခံစနစ်ပြည်သူများ ယုံကြည်ကိုးစားမှုရှိလာစေရန်။
အခန်း(၄) အာမခံလုပ်ငန်းများ အပိုဒ် (၁၁) (က)	အသက်အာမခံ

အပိုဒ် (၁၁) (ခ) အပိုဒ် (၁၁) (ဂ) အပိုဒ် (၁၁) (ဏ) အပိုဒ် (၁၁) (ထ)	သူတစ်ပါးထိခိုက်မှုအာမခံ အထွေထွေနစ်နာမှုဆုံးရှုံးမှုပေးလျော်ရန် အာမခံ ကိုယ်အင်္ဂါထိခိုက်မှုအာမခံ ပန်ကြီးဌာနကသတ်မှတ်ထားသောအာမခံများ
အခန်း(၆) အာမခံထားရှိခြင်းနှင့် အကျိုးခံစာခွင့်ထုတ်ပေးခြင်း အပိုဒ် (၁၆)	နိုင်ငံပိုင်ပစ္စည်းများကို ပျက်စီးဆုံးရှုံးမှုဖြစ်စေနိုင်သော သို့မဟုတ် ပြည်သူတို့၏ အသက်အိုးအိမ်စည်းစိမ်ကို နစ်နာဆုံးရှုံးမှု ဖြစ်စေနိုင်သော သို့မဟုတ် ပတ်ပန်းကျင်ညစ်ညမ်းမှုဖြစ်စေနိုင်သော လုပ်ငန်းတရပ်ရပ်ကိုလုပ်ကိုင်သောလုပ်ငန်းရှင် သို့မဟုတ် အဖွဲ့အစည်းသည် မြန်မာ့အာမခံ၌ အထွေထွေနစ်နာဆုံးရှုံးမှု ပေးလျော်ရန် အာမခံမထားမနေထားရှိရမည်။
စက်မှုဇုန်ဥပဒေ (၂၀၂၀)	
အခန်း(၉) ရင်းနှီးတည်ဆောက်သူ၏တာဝန်နှင့်လုပ်ပိုင်ခွင့် များ အပိုဒ်(၂၃) (ဆ)	ပတ်ပန်းကျင်ထိန်းသိမ်းရေး၊ လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာ ရေး၊ မီးဘေးအန္တရာယ်ကင်းရှင်းရေးကိစ္စရပ်များအတွက် သက်ဆိုင်ရာဥပဒေများ နှင့်အညီ လိုက်နာဆောင်ရွက်ရမည်။
အခန်း(၁၀) အပိုဒ် (၂၇) (ခ)	လုပ်ငန်းဆောင်ရွက်ခြင်းအား သက်ဆိုင်ရာဌာနအဖွဲ့အစည်းများ၏ သတ်မှတ်ချက်များနှင့်အညီလုပ်ကိုင်ဆောင်ရွက်ရမည်။
အပိုဒ် (၂၇) (င)	ပန်ထမ်းများခန့်ထားခြင်း၊ လစာနှင့် အချိန်ပိုလုပ်ခ၊ ခွင့်ရက်၊ အလုပ်ပိတ်ရက်၊ လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေးကိစ္စရပ်များ အပါအဝင် အလုပ်သမားများ၏ အကျိုးခံစားခွင့်များရရှိရေးအတွက် တည်ဆဲဥပဒေ၊ နည်းဥပဒေပါ ပြဋ္ဌာန်းချက်များနှင့်အညီ ဆောင်ရွက်ရမည်။
အပိုဒ် (၂၉)	ရင်းနှီးမြှုပ်နှံသူသည် မိမိလုပ်ငန်းကို စတင်ဆောင်ရွက်ခြင်း၊ ပိတ်သိမ်းခြင်း သို့မဟုတ် စာရင်းရှင်းလင်းဖျက်သိမ်းခြင်းပြုလုပ်လိုပါက သက်ဆိုင်ရာဌာနများနှင့် စီမံခန့်ခွဲရေးကော်မတီသို့ ကြိုတင်အကြောင်းကြား၍ သတ်မှတ်ချက်များနှင့်အညီ ဆောင်ရွက်ရမည်။
အခန်း (၁၂) ပတ်ပန်းကျင်ထိန်းသိမ်းရေးစီမံဆောင်ရွက်ခြင်း အပိုဒ် (၃၉)	ရင်းနှီးမြှုပ်နှံသူသည် ပတ်ပန်းကျင်ညစ်ညမ်းမှု ထိန်းချုပ်ရေးစီမံခန့်ခွဲခြင်း (Pollution Control Management)၊ စွမ်းအင်စီမံခန့်ခွဲခြင်း (Energy Management) များအား သက်ဆိုင်ရာပန်ကြီးဌာနများမှ ထုတ်ပြန်ထားသော လုပ်ထုံးလုပ်နည်းများနှင့်အညီ ဆောင်ရွက်ရမည်။
အခန်း(၁၈) တားမြစ်ချက်များ အပိုဒ် (၅၈)	မည်သူမျှစက်မှုဇုန်အတွင်း စွန့်ပစ်ပစ္စည်းများကို စနစ်တကျမရှိသော နည်းလမ်း ဖြင့် စွန့်ပစ်ခြင်း၊ ရေဆိုးမြောင်းများကို ကျူးကျော်ပိတ်ဆို့ခြင်း၊ ကုန်ကြမ်းနှင့် လောင်စာများအား စနစ်တကျမရှိသောနည်းလမ်းဖြင့်ထားသိုခြင်း၊ လမ်းများပေါ် တွင် ယာဉ်ယန္တရားများစည်းကမ်းမဲ့ရပ်နားခြင်း သို့မဟုတ် ပစ္စည်းများ စုပုံထားရှိ ခြင်းမပြုရ။
Boiler Law (2015)	
Chapter (2) Objective	The objectives of this law are as follows: (a) To obtain boilers in compliance with Myanmar Standards or International Standards (b) To prevent the country and citizens from hazards caused by boiler

	accidents (c) To use boilers in compliance with Myanmar Standards or International Standards within the country (d) To develop boiler technology and to produce experts capable of manufacturing, handling, repair, and maintenance of boilers (e) To optimize the use of boilers through effective utilization of fuel energy (f) To reduce the environmental, social and health impacts through long-lasting use of boilers.
Chapter (3) 4. With the permission of the Ministry, the inspector general can:	Notify the inspection methods and instructions according to the national or international standards for safe operations of boilers in line with this law, procedures and instructions Only the results obtained from the prescribed boiler standards and inspection methods will be approved.
Chapter (4). Boiler Registration	5. Anybody who would like to use a boiler in any kind of business should be registered. 6. Boiler should be manufactured according to Myanmar Standards or International Standards. 7. Those who would like to apply for boiler registration according to Section 5 should apply to the inspector with the application, documents and vouchers related to boiler 8. If the application regarding registration of boiler according to Section 7, the Registration Officer should conduct necessary inspection and submit results of the findings to the Inspector General. 9. The Inspector General should assess and inspect the submission of the Registration Officer according to Section 8 and could allow or reject for registration of the boiler. 10. The Inspector General shall define boiler size according to heated surface area in accordance with adopted procedures.
Chapter (13) Prohibitions	59. According to Section 21, nobody must alter, change, deface, deform or make embossed registration unnoticeable illegitimately. 60. Nobody is allowed to repair a boiler without boiler repair certificate. 61. Nobody is allowed to maintain a boiler without boiler maintenance certificate. 62. Nobody must alter safety relief valve in order to exceed the allowable pressure due to his consent or direction given by the owner. 63. Nobody must manufacture boilers against Section 25, Subsection 25 (a) and (b) enacted.
မြန်မာနိုင်ငံအမျိုးသားအဆင့် စွန့်ပစ်ပစ္စည်းစီမံခန့်ခွဲမှုမဟာဗျူဟာနှင့် ပင်မလုပ်ငန်းအစီအစဉ် (၂၀၂၀)	
ရည်ရွယ်ချက်	အမျိုးသားအဆင့် စွန့်ပစ်ပစ္စည်းစီမံခန့်ခွဲမှု မဟာဗျူဟာနှင့် ပင်မလုပ်ငန်းအစီအစဉ်၏ ရည်ရွယ်ချက်မှာ မြန်မာနိုင်ငံတွင် ပိုမိုစိမ်းလန်းသန့်ရှင်းပြီး ကောင်းမွန်မျှတသော ပတ်ဝန်းကျင်အခြေအနေကို ရရှိနိုင်ရေးအတွက် ထုတ်လုပ်သူနှင့် စားသုံးသူအားလုံး ပူးပေါင်းပါဝင်ခြင်း၊ စွန့်ပစ်ပစ္စည်းအားလုံးကို ပြန်လည်အသုံးချနိုင်ခြင်း၊ ပတ်ဝန်းကျင်ညစ်ညမ်းမှု လုံးဝမရှိစေခြင်းနှင့် စွန့်ပစ်ပစ္စည်းအားလုံးကို ပြန်လည်အသုံးပြုသည့် ပတ်လည်စီးပွားရေးစနစ်ဖြစ်ခြင်း တို့ကို အခြေခံသော ဘက်စုံစွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲမှုမဟာဗျူဟာကိုရေးဆွဲ အကောင်အထည်ဖော်ရန်ဖြစ်ပါသည်။

2.2. INTERNATIONAL GUIDELINES

Organization's Guidelines, World Bank Safeguard Policies, IFC Performance Standards and National Environmental Quality (Emission) Guidelines (2015) are referred for EMP of the proposed factory project.

2.3. COMMITMENT OF GT INDUSTRIAL (MYANMAR) CO., LTD.

GT Industrial (Myanmar) Co., Ltd. shall be responsible for the preservation of the environment at and around the area of project site. In addition to this, it shall carry out as per instructions made by Ministry of Natural Resources and Environmental Conservation (MONREC) in which to conduct an EMP which describe the measure to be taken for preventing, mitigation and monitoring significant environment impacts resulting from the implementation and operation of proposed project or business or activity has to be prepared and submitted and to perform activities in accordance with this EMP and be abided by the environment policy, National Environmental Quality (Emission) Guidelines, Environmental Conservation Law and other environmental related rules and procedures.

GT Industrial (Myanmar) Co., Ltd. shall be responsible for the environmental assessment of factory development as follows:

- Monitoring the factory area operations according to EMP and Environmental Monitoring Plan (EMoP)
- Submitting environmental monitoring reports to ECD
- Planning and implementation of CSR activities
- To set up welfare plan such as staff medical checkup, training program and Public talk for getting knowledge, risk prevention, bonus and social security services
- To carry out fire safety assessment and ensure adequate and appropriate fire safety measures for employees

3. PROJECT DESCRIPTION

3.1. LOCATION

GT Industrial (Myanmar) Company Limited is located at Holding No. (56/2), Kwin No. (1173-Bue Lei Inn Kwin), Bue Lei Inn Village Tract, Bago Township, Bago Region. Location map is as shown in Figure 3-1.

3.2. SITE DESCRIPTION OF THE PROJECT SITE

The total area of project site is 2.5 acres. Main structure is designed into office area, sewing department and QC department for one building and two buildings for warehouse, another accessories production department and packing department. One dormitory also has in the area of the project site. Transformer room and generator room are separated by main factory building structure. The adjacent condition map of the factory has been shown in Figure 3-2 and the factory layout plan can be seen in Figure 3-3.

3.3. PROJECT IMPLEMENTATION

The designed area includes production building (two storey), utilities of transformer room, warehouse, dormitory and general utility room, firefighting pump room and water tank, car parking shelter, offices and canteen facilities etc. Number of people 190 employees working at GT Industrial (Myanmar) Co., Ltd's factory. Most are local people, who manage the company by their dynamic, enthusiastic, experienced, and cooperative skills. The estimated production rate per month may be round about 80,000-90,000 pieces.

Decommissioning phase; the proposed project investment duration is 50 years and they will close and return to land owner.

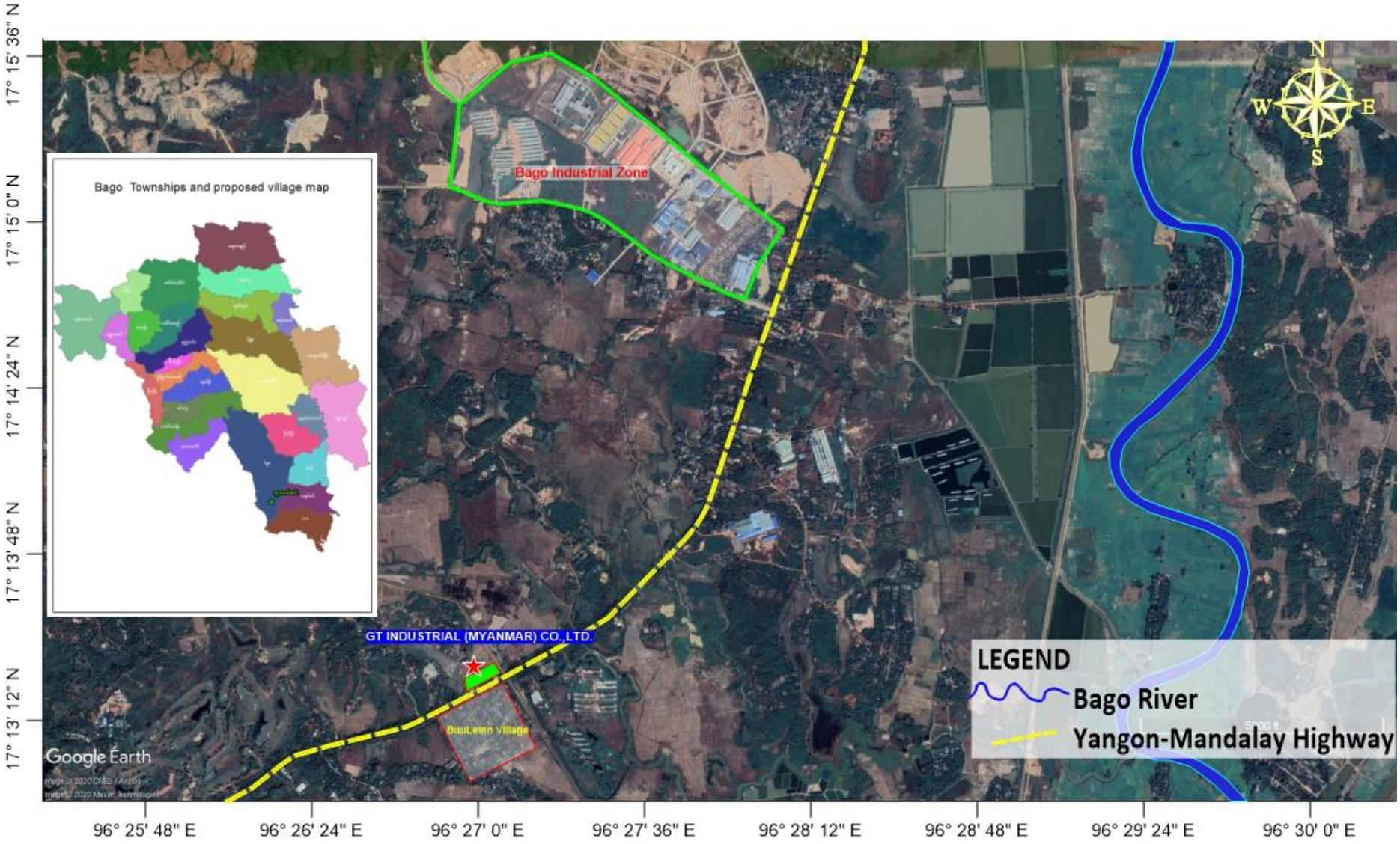


Figure 3-1 Location map of GT Industrial (Myanmar) Co., Ltd.

Figure 3-2 Adjacent condition map of GT Industrial (Myanmar) Co., Ltd.

Figure 3-3 Factory Layout Map

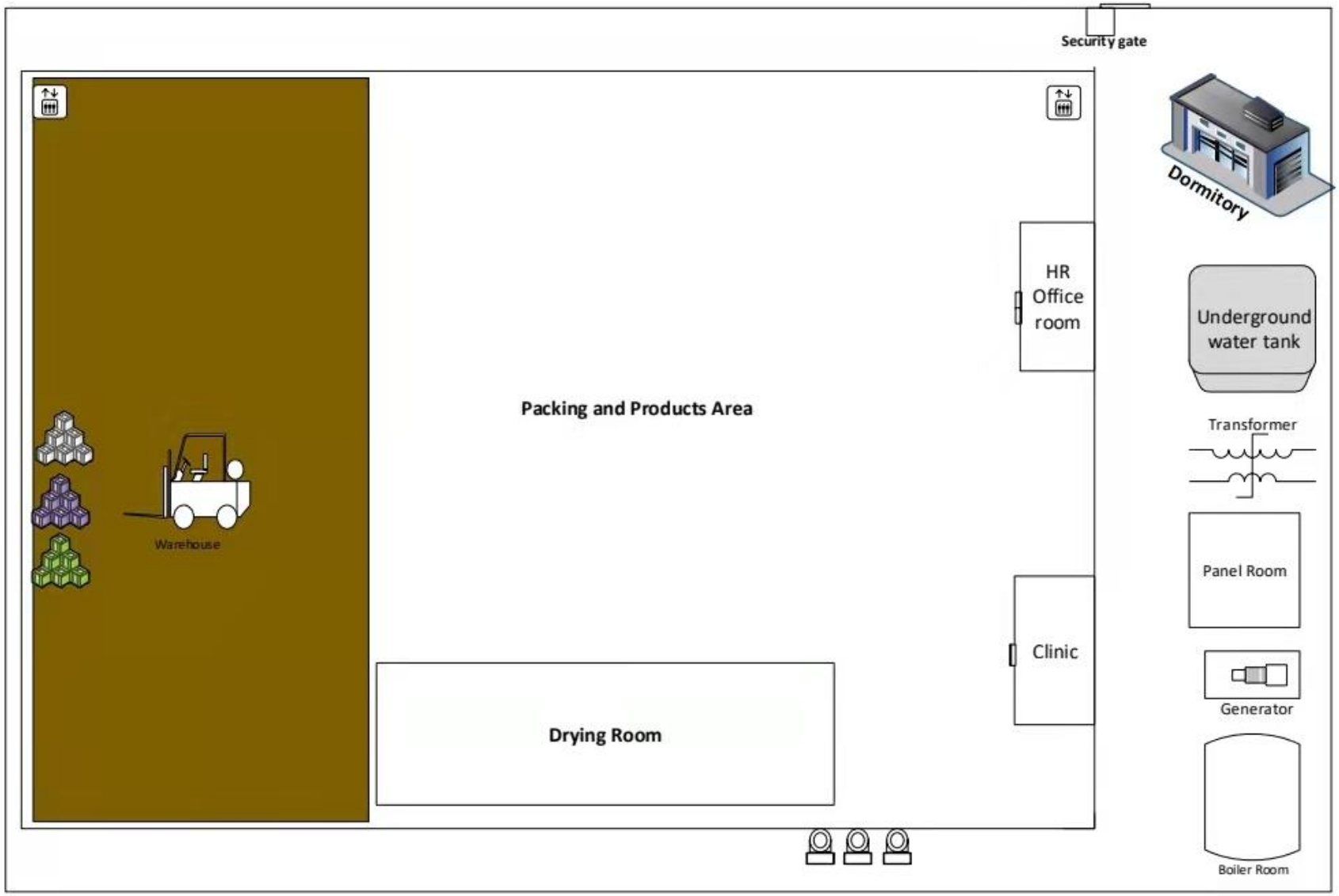


Figure 3-4 Factory Layout Drawing (Ground Floor)

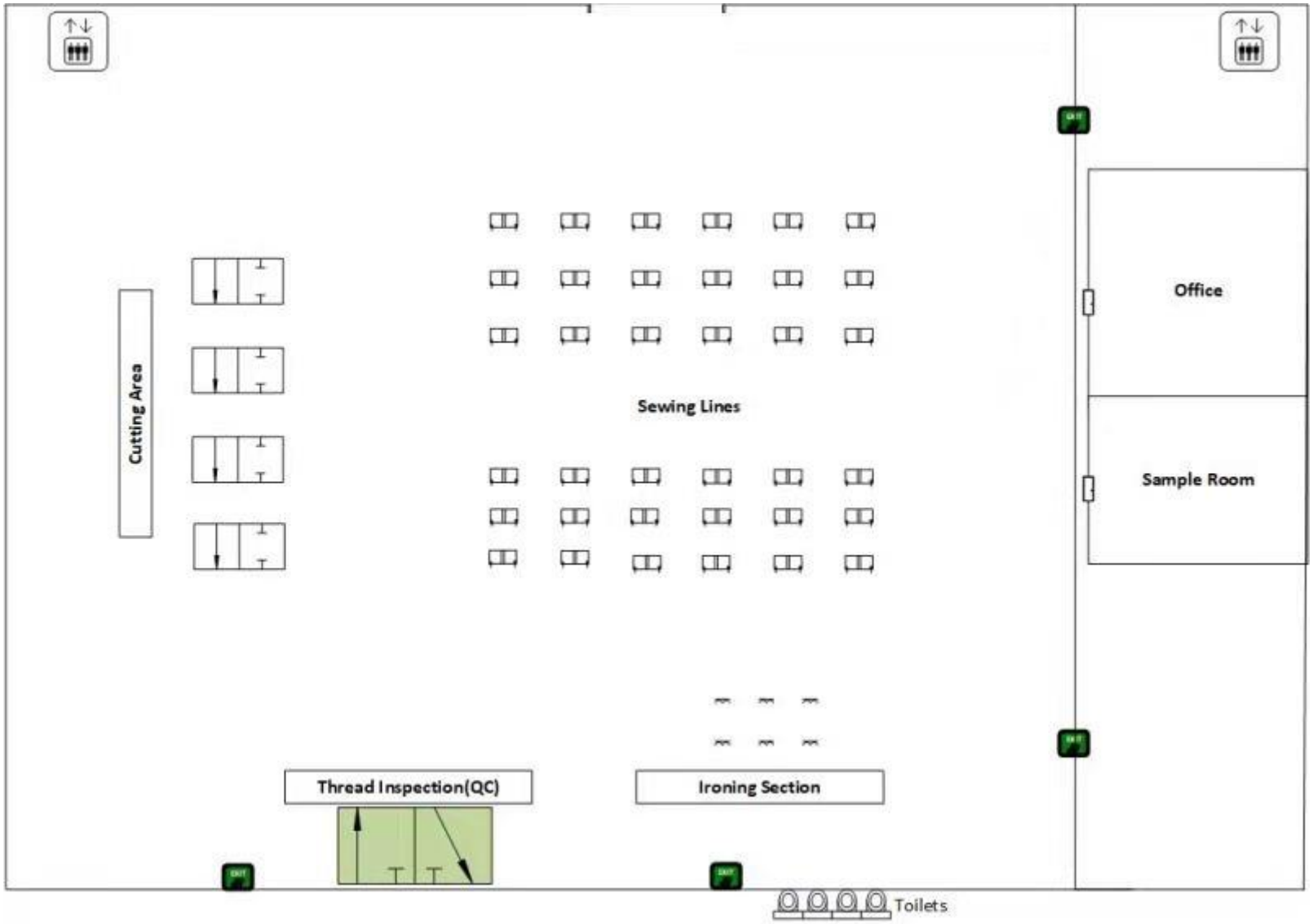


Figure 3-5 Factory Layout Drawing (First Floor)

3.4. PRODUCTION PROCESS

Cutting-Making-Packaging (CMP) is a production system in which raw materials including fabrics and silk are imported and then processed into finished product, packaged and exported. The CMP system is a form of production on consignment in which the main raw materials (fabrics, ancillary materials, etc.) are provided by overseas buyers and imported free of charge, then cut, sewn and packed in the domestic factories, after which all of the finished products are exported. The operation of Brassieres, underwear and it's accessories factories with CMP system includes production costs covering wages, electricity and diesel, transportation, communication, factory and office rental, maintenance and repair of sewing machines, and administrative expenses. Steps of production process of proposed Brassieres, underwear and it's accessories factory are described in Figure 3-6.

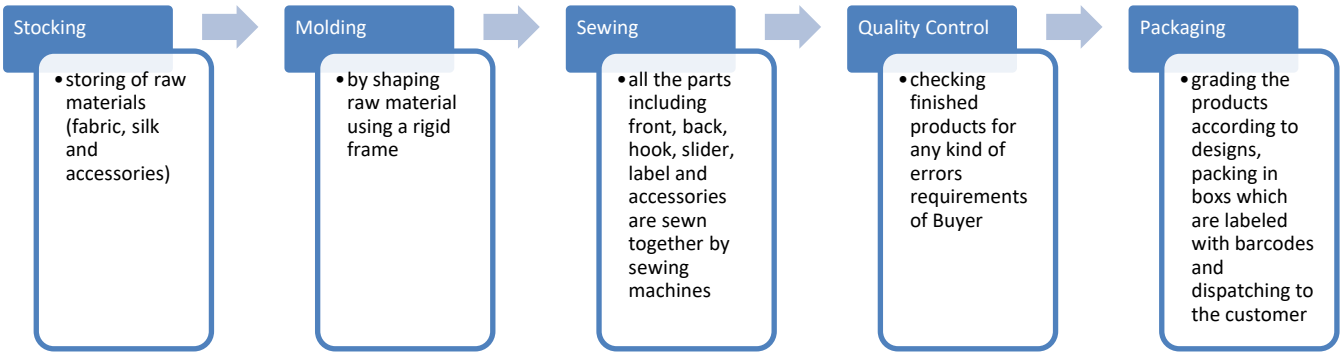


Figure 3-6 Process Flow Diagram

3.4.1. Description of Production Process

The first stage in the manufacturing of garment is the cutting and for that pattern, making is the base. Once the marker is made, pattern pieces must be cut out of the specified fabric.

The process of sewing involves fastening of fabrics, furs or similar other flexible materials with the help of needle and threads. Stitching is the process of passing threaded needle in and out of a material to make a specific design pattern.

After completion of the sewing, quality control (QC) checks for any error. Quality control was done manually.

These packed units are sent to the countries per customer's specification. Packing process was done manually by manpower.

Warehouse

Cutting Section

Sewing Section

Ironing Section

QC

Packing Section

Figure 3-7 Production Process Photos

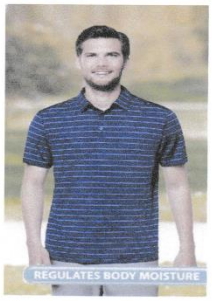
3.4.1. Products

The product of the GT Industrial (Myanmar) Factory is T-Shirt, Shirt, Blouse, Pullover, Jacket, Underwear, Skirt, Dress, Pants, Shorts, Tank Top and stored in the warehouse. Table 3-1 is described in annual production rate.

Table 3-1 Annual Production Rate

Description	Unit	Year-1	Year-2	Year-3	Year-4	Year-5	Year 6-10	Year 11-20	Year 21-30
T-Shirt	Doz	40,000	40,800	41,616	42,032	42,873	43,730	44,605	45,016
Shirt	Doz	25,000	25,500	26,010	26,270	26,796	27,331	27,878	28,135
Blouse	Doz	41,500	42,330	43,177	43,608	44,481	45,370	46,278	46,705
Pullover	Doz	44,500	45,390	46,298	46,761	47,696	48,650	49,623	50,081
Jacket	Doz	25,000	25,500	26,010	26,270	26,796	27,331	27,878	28,135
Underwear	Doz	15,000	15,300	15,606	15,762	16,077	16,399	16,727	16,881
Skirt	Doz	25,000	25,500	26,010	26,270	26,795	27,331	27,878	28,135
Dress	Doz	23,500	23,970	24,449	24,694	25,188	25,692	26,205	26,447
Pants	Doz	24,500	24,990	25,490	25,745	26,260	26,785	37,320	27,573
Shorts	Doz	41,500	42,330	43,177	43,608	44,481	45,370	46,278	46,705
Tank Top	Doz	41,500	42,330	43,177	43,608	44,481	45,370	46,278	46,705

(1) T-Shirt



(2) Shirt

(5) Jacket

(6) Underwear

(3) Blouse

(4) Pullover

(7) Skirt

(8) Dress

Figure 3-8 Products Photo

3.5. UTILITIES

3.5.1. **Raw Material**

Raw Materials, which include threads, woven, label, button etc are imported from China and stored in warehouse according to their various kinds of products. Annual raw material requires for production process is described in Table 3-2.

Table 3-2 List of Raw Material Requirement (Annually)

No	Particular	Unit	Year – 1	Year - 2	Year -3	Year -4	Year -5	Year -6-10	Year -11-20	Year -20-30
1	Thread	Pcs	1,028,700	1,049,274	1,070,259	1,080,962	1,102,581	1,124,633	1,147,126	1,157,710
2	Woven	Meter	144,000	146,880	149,818	151,316	154,342	157,429	160,579	162,059

No	Particular	Unit	Year – 1	Year - 2	Year -3	Year -4	Year -5	Year -6-10	Year -11-20	Year -20-30
3	Label	Pcs	29,148,000	29,730,960	30,325,579	30,628,835	31,241,412	31,866,240	32,503,565	32,803,482
4	Elastic	Yds	1,554,000	1,585,080	1,616,782	1,632,949	1,665,608	1,698,921	1,732,899	1,748,889
5	Button	Pcs	8,862,000	9,039,240	9,220,025	9,312,225	9,498,470	9,668,439	9,882,208	9,973,393
6	Interlining	Yds	878,400	895,968	913,887	923,026	941,487	960,316	979,523	988,561
7	Mobilion Tape	Yds	2,263,200	2,308,454	2,354,633	2,378,180	2,425,743	2,474,258	2,523,743	2,547,030
8	Tape	Yds	1,335,000	1,361,700	1,388,934	1,402,823	1,430,880	1,459,497	1,488,687	1,502,424
9	String	Yds	1,786,800	1,822,536	1,858,987	1,877,577	1,915,128	1,953,431	1,992,499	2,010,885
10	Satin	Yds	2,772,000	2,827,440	2,883,989	2,912,829	2,971,085	3,030,507	3,091,117	3,119,640
11	Badge	Pcs	1,926,000	1,964,520	2,003,810	2,023,849	2,064,325	2,105,612	2,147,724	2,167,542
12	Lace	Yds	2,880,000	2,937,600	2,996,352	3,026,316	3,086,842	3,148,579	3,211,550	3,241,184
13	Crochet	Yds	2,880,000	2,937,600	2,996,352	3,026,316	3,086,842	3,148,579	3,211,550	3,241,184
14	Flat Knit Collar & Cuffs	Pcs	4,158,000	4,241,160	4,325,983	4,369,243	4,456,628	4,545,760	4,636,676	4,679,459
15	Zipper	Pcs	6,414,000	6,542,280	6,673,126	6,739,857	6,874,654	7,012,147	7,152,390	7,218,387
16	Snap Button	Set	7,854,000	8,011,080	8,171,302	8,253,015	8,418,075	8,586,436	8,758,165	8,838,979
17	Eyelet	Set	1,782,000	1,817,640	1,853,993	1,872,533	1,909,983	1,984,183	1,987,147	2,005,483
18	Press Button	Set	5,184,000	5,287,680	5,393,434	5,447,368	5,556,315	5,667,442	5,780,790	5,834,131
19	Bukle	Pcs	2,544,000	2,594,880	2,646,778	2,673,245	2,726,710	2,781,244	2,836,869	2,863,046
20	Hangtag	Pcs	12,492,000	12,741,840	12,996,677	13,126,644	13,389,176	13,656,960	13,930,099	14,058,635
21	Sticker	Pcs	8,328,000	8,494,560	8,664,451	8,751,096	8,926,118	9,104,640	9,286,733	9,372,424
22	Paper Card	Pcs	4,164,000	4,247,280	4,332,226	4,375,548	4,463,059	4,552,320	4,643,366	4,868,212
23	Plastic Paper	Pcs	1,956,000	1,995,120	2,035,022	2,055,373	2,096,480	2,138,410	2,181,178	2,201,304
24	Carton	Pcs	2,082,000	2,123,640	2,166,113	2,187,774	2,231,529	2,276,160	2,321,683	2,343,106
25	Superdry	Pcs	8,328,000	8,494,560	8,664,451	8,751,096	8,926,118	9,104,640	9,286,733	9,372,424
26	Plastic Pin	Pcs	8,328,000	8,494,560	8,664,451	8,751,096	8,926,118	9,104,640	9,286,733	9,372,424
27	Hanger	Pcs	4,164,000	4,247,280	4,332,226	4,375,548	4,463,059	4,552,320	4,643,366	4,686,212
28	Plastic Clip	Pcs	2,082,000	2,123,640	2,166,113	2,187,774	2,231,529	2,276,160	2,321,683	2,343,106
29	Tissue Paper	Pcs	3,192,000	3,255,840	3,320,957	3,354,166	3,421,250	3,489,675	3,559,468	3,592,312
30	Polybag	Pcs	4,164,000	4,247,280	4,332,226	4,375,548	4,463,059	4,552,320	4,643,366	4,686,212
31	Sealing Tape	Yds	4,164,000	4,247,280	4,332,226	4,375,548	4,463,059	4,552,320	4,643,366	4,686,212
32	Adhesive Tape	Yds	1,249,200	1,274,184	1,299,668	1,312,664	1,338,918	1,365,969	1,393,010	1,405,864
33	Marker Paper	Pcs	8,328,000	8,494,560	8,664,451	8,751,096	8,926,118	9,104,640	9,286,733	9,372,424


Figure 3-9 Raw Materials Photo

3.5.2. Machinery and equipment

Lists of machinery and equipment required for the GT Industrial (Myanmar) Co., Ltd. is following in Table 3-3. They are imported from China and 262 days running annually.

Table 3-3 List of Machinery

Operation Stage	Machinery Name	Unit	Quantity
Pre preparation and cutting section	Microcomputer Computerized Elastic Metering Device	set	20
	Straight Knife Cutting machine	set	20
	Manual End Cutter	set	12
	Thread Pieces Sucking Machine	set	6
	Large Leon Table	set	50
	Band Knife Cutting Machine	set	4
	Air Floating Cutting Table	set	144
	Automatic Spreading Machine	set	150
	Automatic Cutter	set	220
	Working Table	set	220
	Taboret	set	120
	Assembly Stuff Trolley In Single Faced	set	200
Sewing and Linking section	Direct-drive high speed, 1needle lock stich machine	set	400
	Semi Dry Head, High Speed, Overlock/ Safety Stitch Machine	set	240
	High speed, Cylinder-bed, top and bottom converstich machine	set	140
	High Speed, Flat Bed, Top and Bottom Coverstitch Machine	set	20
	Computer-controlled, high-speed, Lockstich buttonholing machine	set	10
	Computer-controlled, high-speed, Lockstich bartacking machine	set	20

Operation Stage	Machinery Name	Unit	Quantity
	Multi Needle Double Chainstitch Sewing Machine	set	16
	Feed off the arm, Double Chainstitch Machine	set	10
	White Button Machine	set	20
	Assembly Line for sewing line	set	200
Iron, Inspection section	Manual Heat Transfer Machine	set	30
	Needle Detector Machine	set	2
	Inspecting Maching Knited	set	1
	Rack	set	100

3.5.3. **Human Resource**

The proposed Factory of GT Industrial (Myanmar) Co., Ltd. has the employees more than 97 % are local people, who manage the company by their dynamic, enthusiastic, experienced, and cooperative skills. Currently, one shift (8 hours + overtime 2 hours) of production are running or operating. Their working days were 262 days per annually. Human resource required by foreign experts/technicians and local persons for administrative and production process are about 190 persons. Among these there are 5 of foreign persons.

3.5.4. **Water**

Bago Township has no centralized water supply system and the factory gets water from the tube wells installed inside the factory compound. Main source of water supply will be provided by tube well water (ground water 150ft deep) in which ground water is pumped (by using 4 inches PVC pipe) in the storage tanks for the factory and domestic use. The groundwater stores in the three storage tanks on one-underground tanks with capacity of 25000 gallons for firefighting and two tanks with capacity of 4000 liters and 1000 liters for drinking water. The main water use in the proposed project is for domestic usage such as for personal washing, food preparation, and washing of utensils. Drinking water will be provided by using water filtration process. Figure 3-10 is described by water storage tank and drinking water supply for GT Industrial (Myanmar) Co., Ltd.

Figure 3-10 Drinking Water Supply

3.5.5. Electricity and Fuel Requirement

The proposed project is intended to get required electricity supply form City Electricity Supply Board and distributed by 400 kVA Transformers. Emergency use of energy from generators 100 kVA and 625 kVA will be kept as the emergency generator if normal electricity outage. They use diesel engine generator and 250 gallons per month, 3000 gallons annually. Electricity distribution room is shown in the Figure 3-11.

Figure 3-11 Electricity System

3.5.6. Steam Boiler

The steam boiler to be used in steam capacity for garment ironing process and used of fuel for steam boiler is fire wood. pellets Wood was required for boiler operation at about 0.02 ton per hour, this wood supply from local supplier These are stored properly in specified area. The steam boiler has no fly ash filter. General information of boiler process is mentioned in Table 3-4 .

Table 3-4 Opeartion of Boiler

Brand Name	Pucheng Boiler
Model	PCI- 1000
Maximum Evaporation	1 Ton/hr
Maximum Operating Pressure	7 kg/cm2 (bar)
Maximum Heat Output	0.6 Mkcal/hr
Heating Area	1.61 m2
Date of manufacture	2019.12.18
Net Weight	11.5 Ton
Size	3.1 mW x 4.2 mL x 5.1 mH
Production Company	Zibo Pucheng Boiler Co.,Ltd.
Boiler ID	PCI-1000 007
Fuel consumption per hour (Fire wood)	0.02 ton /hr
Boiler effluent in drainage	Blow down valve > underground channel > Industrial driange
Amount of blow down discharge	5.28 gal / hr (20 % of water consumption)

Bottom ash released per day per usage	18 kg / day (10 % of fuel usage)

Figure 3-12 Steam Boiler Photo

3.6. FACILITY

3.6.1. Fire Hazards Protect Facility

Fire extinguishers, fire hose reels, fire hydrants and fire sprinkler system are installed in the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening with the dimension of 20m x 8.5m at the proposed area. The emergency contact numbers of township and district fire services department must be printed and tagged at easily visible places for fire emergency cases. The emergency fire alarms are installed at the factory for alerting the workers in case of fire. The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases. In addition, the project proponent has plans to provide trainings on firefighting for the workers by a professional or otherwise by sending to training courses. The plan to install fire alarm system and fire-frightening system are mentioned in Figure 3-13

Figure 3-13 Firefighting System

3.6.2. Liquid Waste Control Facility

Water discharge from the factory site will be treated by silts track tank before discharging. The factory plan has kitchen, canteen and toilet facilities attached in various buildings of the factory. In the kitchen, separated drainage lines are provided to flow wastewater from the activities washing and cooking, etc. And around the compound area of the project area, drainages are also provided and maintain to flow storm water (rain water, snow and surface water). The compound area of the factory is paved with concrete and the drainages are covered and holes are there to flow the storm water. The existing drainage at the project area can be seen in Figure 3-14. Besides, the factory plans to use separate wastewater channels, septic type toilet system. Liquid waste from the dining room, canteens and toilet facilities are collected in septic tanks which are attached with sewer treatment plant and the proponent will connect and cooperate with Bago's municipal service to be carried out for disposing of these septic tank wastes. To mitigate the impact on water, the drainages around the compound area of the factory have to maintain and clean regularly. Spillage and leakages of oil and grease should also be minimized.

Figure 3-14 Drainage and Toilet Facility

3.6.3. Solid Waste Management Facility

The factory provides separate garbage bins at each building. All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste bin: non-hazardous waste, hazardous waste, re-usable waste and final wastes will be disposed by using Bago's municipal service.

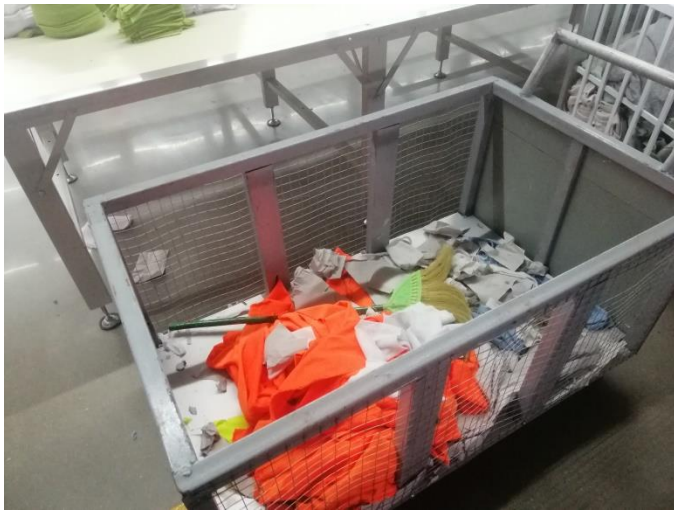



Figure 3-15 Waste Storage Photos

3.7. WASTE GENERATION

The project will be generated solid waste, liquid waste and hazardous waste from the operation of the GT Industrial (Myanmar) Co., Ltd. The sanitary liquid waste of the factory is discharge to the factory drainage. Detail description of waste generation and waste amount are shown in Table 3-5.

Table 3-5 Waste Generation and Waste Amount

Wastes		Type of wastes	Estimated waste amount	Source of generation
Solid waste	Re-usable	Disposed packaging materials, paper or plastic wrapping	80 kg / month	Materials store and supply packaging
	Non re-usable	Food residues, domestic waste	78 kg / day*	Canteen, Kitchens, Dormitory
Liquid waste		Sanitary discharge water	20 m^3 /day*	Toilet facility, kitchen and canteen
Hazardous waste		Oil leakage and spills	-	Operation of generator and movements of vehicles

* The Yangon City solid waste generation rate as of 2012 is 0.39 kg per person per day (Pollution Control and Cleansing Department, Yangon City Development Committee, 2014).

*The domestic wastewater generation was based on typical wastewater generation rate of 0.1 m^3 per person per day (Metcalf & Eddy, 2004)

3.8. DECOMMISSIONING PHASE

The proposed project investment duration is 50 years and they will close the project according to their MIC proposal. Environmental management process during decommissioning phase is seen in **Error! Reference source not found.**.

4. BRIEF DESCRIPTION OF SURROUNDING ENVIRONMENT

The purpose of this Chapter is to predict how environmental and socio-economic conditions will affect because of the implementation of the proposed Project. This requires a sound understanding of the baseline conditions at the project site, which established through desktop study research, site surveys, primary data collection and projections for future developments. Findings provide the current and future characteristics of the project site and the value and vulnerability of the key environmental and socio-economic resources and receptors. The following sections provide a description of the environmental and socio-economic aspects of the project.

4.1. METHODOLOGY FOR DATA COLLECTION AND ANALYSIS

The followings are methodologies used for the Environmental Management Plan (EMP) report preparation;

- Onsite Measurements and Analysis – Baseline parameters such as air quality and noise quality of the project site during operation phase were measured onsite. The analyzed results are mentioned in this chapter.
- Secondary data collection of proposed project site area – Socio economic condition, physical/biological environment, and weather data are collected from official township data of Bago Township, Bago Region.

4.2. ENVIRONMENTAL BASELINE STUDY

The field observation for determining the environmental baseline of the proposed project area was undertaken during operation period. The survey team consists of the senior consultant and environmental quality team. The baseline data collected regarding the environmental condition of the project area was conducted in the following section.

4.2.1. Site Survey and Environmental Monitoring

The baseline environmental quality at the Project Site and its immediate surroundings was established by groundwater, wastewater and ambient air quality samples; as well as noise measurements at immediate surrounding areas. The data is presented below.

4.2.2. Temperature and Humidity

The weather condition during 18, December, 2020 shows the average temperature of 35.8 °C while the average humidity is 49 % and its cloudy day. There were partly cloudy on the day between 10:00 am and 4:00 pm and the wind speed is 15 to 25 km/h SW direction.

Table 4-1 Relative Humidity and Temperature Measure

Date and Time	Description	Result value	Environmental parameter air station guideline
18 December 2020 (1:00 pm to 5:00 pm)	Relative Humidity RH %	49 (%)	Present condition
	Temperature	35.8 °C	Present condition

4.2.3. Air Quality

To determine the existing baseline ambient air quality status within the project site on 18 December 2020, 24-hours of working period air pollutants level, which include dust (PM_{10} and $PM_{2.5}$) and gases (CO, CO_2, SO_2, NO_2) were measured at the selected site using the OCEANUS AQM-09 air quality monitoring station. To reveal the existing status of baseline air quality, the average ambient air qualities measured were compared with National Environmental Quality (Emission) Guideline. The measurement location point is situated at latitude 17°13'29.03"N and longitude 96°26'51.16"E.

It was observed that the air quality of NO_2, CO, CO_2 and SO_2 concentration level and particulate matter (PM_{10}, $PM_{2.5}$) are within the National Environmental Quality (Emission) Guideline.

Table 4-6 Observed Air Quality Results

Parameters	Observed value	Guideline value	Unit	Organization	Period
PM_{10}	27.71	50	$\mu g/m^3$	NEQG	24 hrs
$PM_{2.5}$	22.5	25	$\mu g/m^3$	NEQG	24 hrs
SO_2	81.2	500	$\mu g/m^3$	NEQG	10 min
NO_2	35.13	200	$\mu g/m^3$	NEQG	1 hrs
CO	31.5	35	ppm	ACGIH	24 hrs
CO_2	1	NG	ppm	-	-

NEQ = National Environmental Quality (Emission) Guideline]

Figure 4-1 Air Quality Measurement at the Project Site

4.2.4. Noise

The Noise level was measured by using Digital Sound Level Meter for working hours on 3 March 2020. The average noise level in the project site area is presented in Table 4-2 compared with NEQ guideline. However, according to the Noise source monitoring at operation area (inside the production sector) of noise level is within the acceptable level of National Environmental Quality (Emission) Guideline.

Table 4-2 Noise Level Measurement Result

Date and Time	Location	GPS value	Result value	Guideline
18 December 2020 (1:00 pm to 4:00	Operation area	17°13'29.03"N	67.23 dBA	70 dBA

pm)		96°26'51.16"E.		

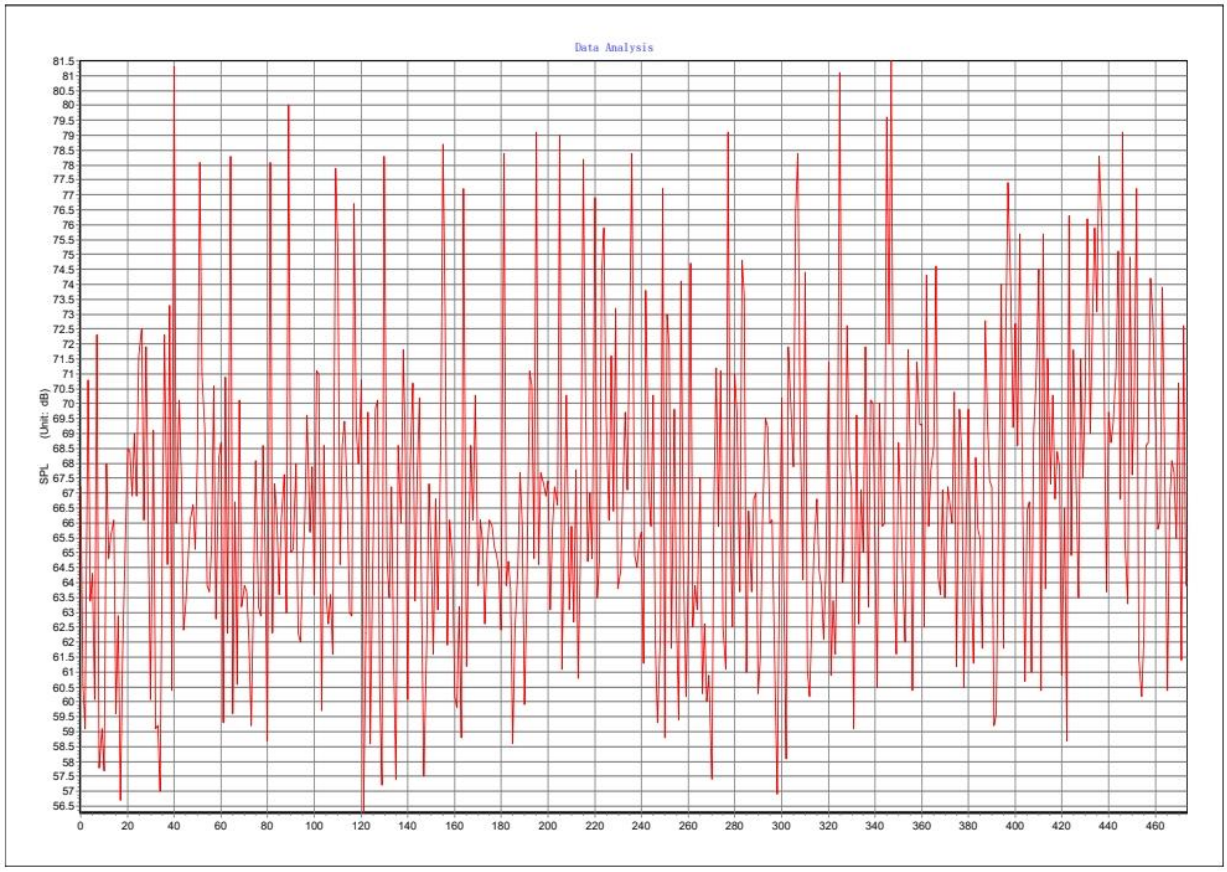


Figure 4-2 Noise Level Result Graph

Figure 4-3 Sound Level Measurement Photos

4.2.5. **Light**

Activities of the workers in the manufacturing of garments factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in the manufacturing of

garments factory is presented in Table 4-3. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in manufacturing of garments factory is provided.

Appropriate lighting is the need for every department, irrespective to the task being handled. Although, there are some areas where focus on maintaining proper illumination is very crucial in manufacturing of Brassieres, underwear and it's accessories factory, like the inspection points (on-floor and in stores), sampling, and the finishing section, as these areas are crucial for the quality of the production. The tasks involved in these areas require high levels of worker focus and accurate lighting to ensure lower errors and defects passing on to the next stage.

However, according to the result of light measurement at operation area (inside the production sector) is in good condition and at the acceptable level of standard. Illuminance measurement at the operation area of the factory by using UNI-T UT382 LUMINOMETER.

Table 4-3 Recommended Illumination and Limiting Glare Index based on IES Code, 1968

Visual test	Illumination (lux)	Glare index
Casual seeing	100	28
Rough task with large detail	200	25-28
Ordinary task medium detail	400	25
Fairly severe task, small detail (e.g. drawing office, sewing)	600	19-22
Severe, prolonged task, very small detail (e.g. fine assembly, hand tailoring)	900	16-22
Very severe, prolonged task, very small detail (e.g. gem cutting, hosiery mending, gauging very small parts)	1,300 -2,000	13-16

Source: Koenigsberger, et al. 1975

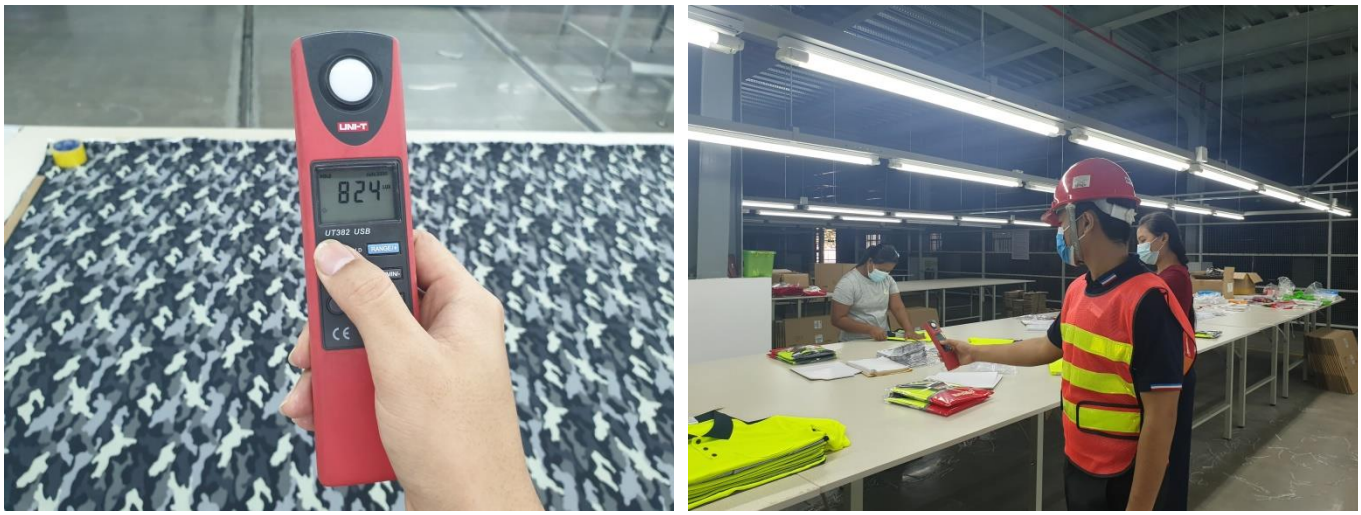


Figure 4-4 Light Quality Measurement

Table 4-4 Result of Light Measurement

No	Measure area	Unit	Measure value	Standard	Type of Light
1	Warehouse	Lux	950	1000	LED tube light
2	Sewing	Lux	1210	1300 - 2000	LED tube light
3	QC	Lux	1400	1300 - 2000	LED tube light

No	Measure area	Unit	Measure value	Standard	Type of Light
4	Packing	Lux	1050	600	LED tube light

4.2.1. Ground Water Quality

Water quality has been tested at the Iso Tech Laboratory with respect to WHO Guidelines for Drinking Water Standard. According to the drinking water analysis results see in **Appendix.**

4.3. PHYSICAL COMPONENT

4.3.1. Geology

The Bago area is mainly composed of bluish gray silts and clay of Younger alluvium (recent). The alluvial soil occurred in the eastern part of the study area. Younger alluvium consists of stream deposits, gravel deposits, silty clay and light colour sandy soils. Younger alluvium overlies the older alluvium of Quaternary, followed by Irrawaddy Formation of Pliocene age. Older alluvium is composed of silty clay, silty sand, sand and lateritic clay. Irrawaddy Formation is mainly exposed at the north western part of the project area. This Formation is characterized by alteration of mudstone and sandstone, sandy mudstone. The sandstone is underlying the mudstone and medium to coarse grain, highly loose and friable, grit and conglomerate with the subordinate bluish grey shale. Mudstone is of bluish grey color, moderately jointed, stiff and compact. Geological map of Yangon-Bago Regional area is shown in Figure 4-5.

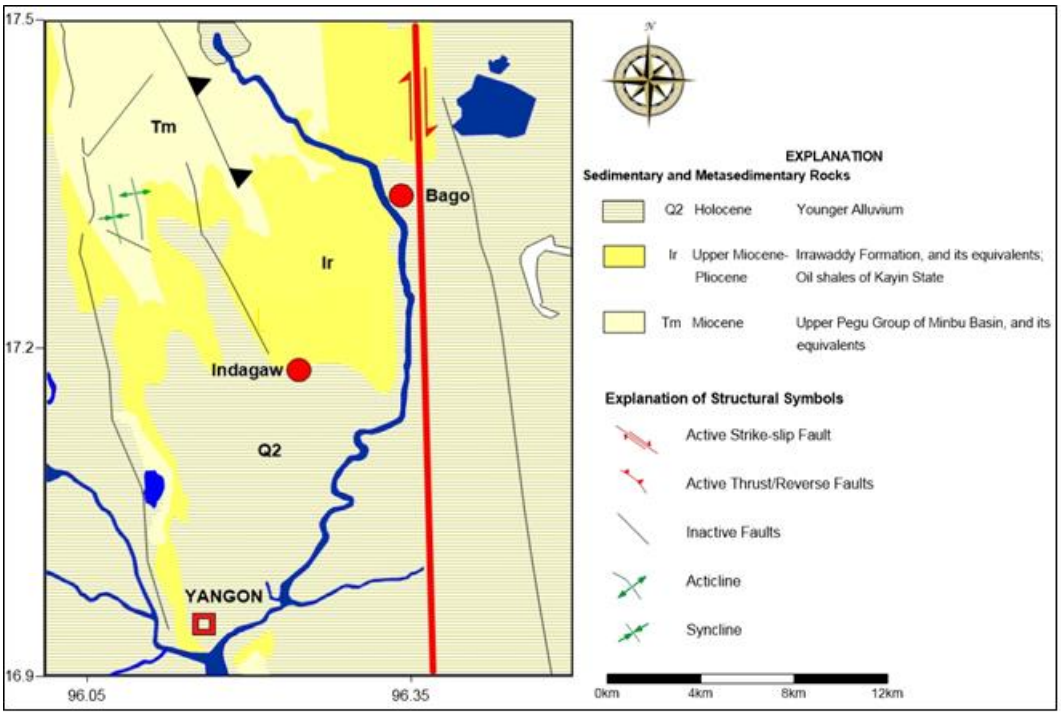


Figure 4-5 Geological Map of the project area

4.3.1. Land Use

Information about land use was collected from secondary sources of Bago Township regional data. Classification of land use area in Bago Township is shown in

Table 4-5.

Table 4-5 Land Use Information of Bago Township

No.	Land Items	Area (Acre)
1	Agricultural Land	205,514
2	Pastureland	5,189
3	Industrial Land	1,775
4	Residential Land	30,100
5	Protected area	395,851
6	Vacant area / Idle Land	945
7	Free land	7,887
	Total Land area	717,861

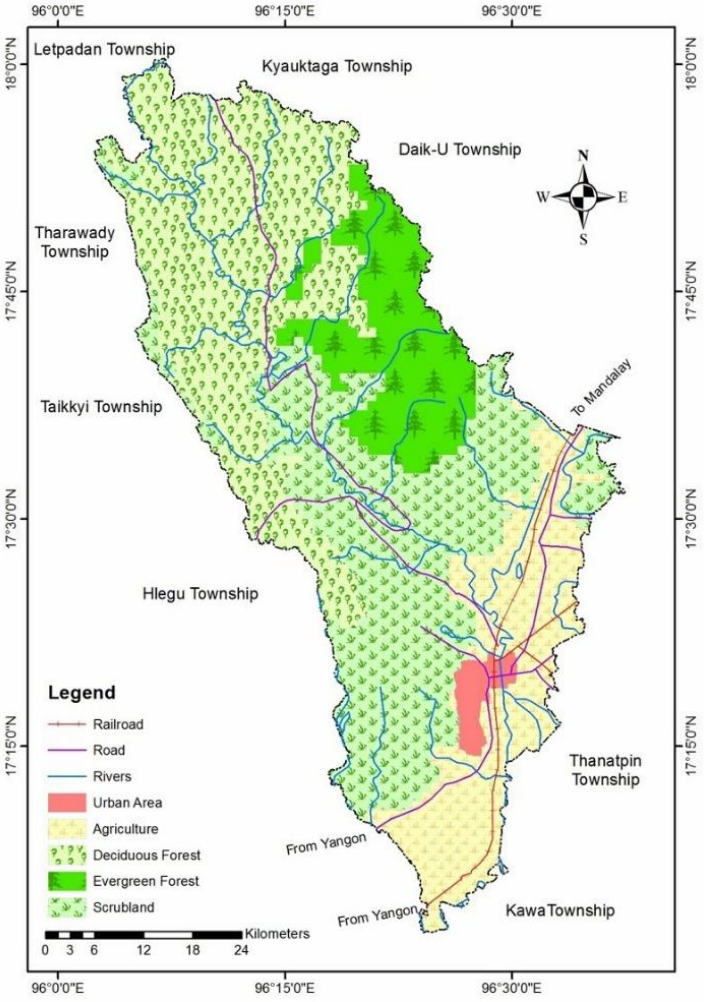


Figure 4-6 Land use map of Bago Township

4.3.2. Soil

Soil is classified into categories in order to understand relationships between different soils and to determine the suitability of a soil for a particular use. It was based on the idea that soils have a particular morphology based on the materials and factors. A different classification system began to emerge which focused on soil morphology instead of parental materials and soil-forming factors. Since then it has undergone further modifications. The World Reference Base for soil resources (WRB) aims to establish an international reference base for soil classification. The study area is covered by Gleysol soil (GL) and Nitisol soil (NT).

(1) Gleysol occurs on wide range of unconsolidated materials, mainly fluvial, marine and lacustrine sediments of Pleistocene of Holocene age, with basic to acidic mineralogy. They are found in depression areas and low landscape positions with shallow groundwater. Wetness is the main limitation of virgin Gleysols; these are covered with natural swamp vegetation and lie idle or are used for extensive grazing. Artificially drained Gleysols are used for arable cropping, dairy farming and horticulture. Gleysols in the tropics and subtropics are widely planted to rice. They exhibit a greenish-blue-grey soil color due to anoxic wetland conditions. On exposure, as the iron in the soil oxidizes colors are transformed to a mottled pattern of reddish, yellow or orange patches. During soil formation (gleying), the oxygen supply in the soil profile is restricted due to soil moisture at saturation.

(2) Nitisol is a deep, red, well-drained soil with clay content of more than 30% and a blocky structure. These soils are found in the tropics and subtropics. Nitisols form from fine-textured material weathered from intermediate to basic parent rock and kaolinite, halloysite and iron oxides dominate their clay mineralogy. The natural vegetation on nitisols includes tropical rain forest and savannah. Limitatins frequently include low phosphorus availability and low base staus, but once ameliorated; these deep, stable soils have high agricultural potential, and are often planted to crops.

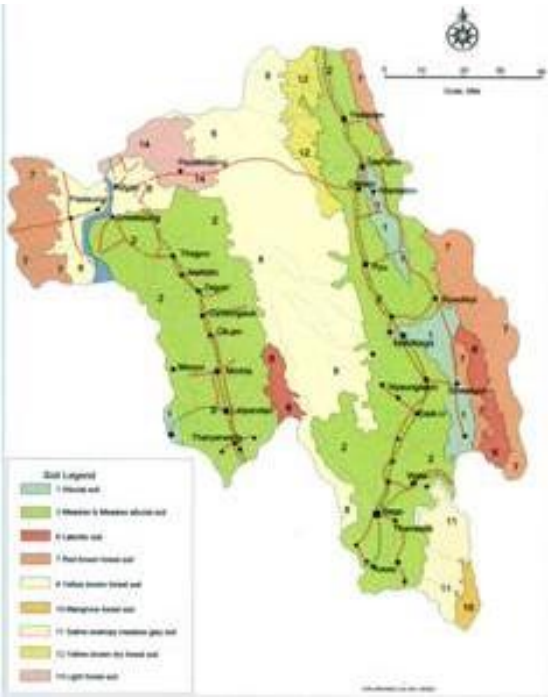


Figure 4-7 Soil Map of Bago Division

4.3.3. Hydrogeology

The main river of Bago is organized from Bago mountain range. It flows within the north-south direction, through Bago-Yangon. There are several tributaries of this river, and generated other water source in the area. Kolukwal Chaung, Latpan Chaung, Aungmya Chaung, Shwelaung Chaung and Salu Chaung are organized from North of Bogo Yoma range. There is tributaries flow in the Bago River.

4.3.4. Climate and Meteorology

The proposed project is located at Bago Township, Bago Region. The climate condition of Bago Township is the dry season of area in which the project lies starts in December and ends in March. The raining season starts in June and ends in September and the cold season follow with the cooler, drier months of October to January. The highest temperature ranging 39.3°C and low range 20°C reference from Township Meteorology data, Regional Data of Bago Township. 2017 data of rainfall and temperature is presented in Table 4-6.

Table 4-6 Annual Rainfall and Temperature

2017	Rainfall		Temperature	
	Raining day	Rainfall value	Summer Season Max (°C)	Winter season Min (°C)
April	3	4.49	39.3	20.0
May	12	18.15	38.5	20.0
June	25	22.36	33.8	21.3
July	29	44.21	31.5	22.4
August	26	25.39	33.4	23.0
September	21	17.80	35.0	23.6
October	8	9.17	-	-

Source: Department of Administrative Bago Townships, Regional data (www.gad.gov.mm.com)

4.4. BIOLOGICAL COMPONENT (SECONDERY DATA)

The project area is near the Bue Lei Inn Village area of Bago Township. Therefore, the proposed project site is not located in or near a sensitive ecosystem in the Bago Region. The proposed project activities are not affected to the changes of ecosystem in the Bago region.

Ecological Resources	Existing condition
Fisheries, aquatic biology	The nearest river is Bago River. Fresh water fish species are residing in the river
Wildlife	Non existence
Forests	Non existence
Rare or endangered species	Non existence
Protected areas	Non existence
Coastal resources	A few mangrove species observed at the river bank of Bago River

4.5. SOCIO-ECONOMIC COMPONENT

4.5.1. Population

GT Industial (Myanmar) factory is located across Bago Township in Yangon Region. In 2017, there are about people 434,822 in Bago Township as shown in Table 4-7. [1]

Table 4-7 Population of Males and Females at Bago Township (2017)

Item	Older 18 year			Younger 18 year			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Urban	58,948	71,836	130,784	42,823	44,480	87,303	101,771	116,316	218,087
Rural	65,590	66,959	132,549	39,668	44,518	84,186	105,258	111,477	216,735
Total	124,538	138,795	263,333	82,491	88,998	171,489	207,029	227,793	434,822

Source: Department of Administrative Bago Township, Regional data (www.gad.gov.mm.com)

4.5.2. Religion

The different kinds of religion present in Bago Township are shown in Table 4-8. More than 90% of the people living in the township are Buddhists. [1]

Table 4-8 Religion in Bago Township (2019)

Township	Buddhist	Christian	Hindu	Muslim	Other	Total
Bago	406,580	17,135	6,137	2,925	2,045	434,822

Source: Department of Administrative Bago Township, Regional data (www.gad.gov.mm.com)

4.5.3. Local Economy

Among regional towns, Bago Township has a variety of businesses and services operating in the community with other businesses/services, based in the region. Most of the source of livelihood in the Township is agriculture. Services and facilities available include:

- Store
- Gold Shop
- Electrical Store
- Mobile/Service Store
- Book Shop
- Pharmacy
- Restaurants
- Tea Shop
- Hardware Store
- Agricultural Shop
- Construction Material Shop
- Services
- Rice Shop
- Fashion Shop

- Pagoda & Monastery Donation Accessories Shop

4.5.4. Public Infrastructure and Access

4.5.4.1. Communication and Transportation

Major transportation route in Bago Township are railway, port, and car road as presented in Table 4-9. [1]

Table 4-9 Transportation Route

Categories	Township		Distance	No
	From	to		
Railway (Pegu-Mandalay railway)	Pegu	Mandalay	40/1.2miles	12
Railway (Pegu-Mawlamyaing railway)	Pegu	Mawlamyaing		3
Inland Waterway(Pegu-Kin Paing kyong)	Pegu	Kin Paing Kyong	12miles	
Inland Waterway(Pegu-Lat Pan Khone)			7miles	
Inland Waterway(Baw Net Kyi-Zaung Tu)	Baw Net kyi,	Zaung Tu	25miles	
Bus Line (No-1 University)	Yan Kin Thar Hin Thar Kone Yan Kin Thar Malar Kyi	Ka Li University		77
Bus Line (Kyan Tine Aung)	Bago	Yangon		11
Three Wheels Bus Line No-3	Hin Thar kone	University Ba Htu Mahar Pagoda		55
Bus Line (Oke Thar)	Bago	Yangon		12
Bus Line(5)	Nyaung lay Pin-Bago	Yangon-(Dagon Ayar) Yangon Nyaung lay Pin		28 2
Bus Line(6)	Bago -Yangon	Kyite Hto		29 1
Bus Line (Phyo)	Bago	Yangon		21
Bus Line(8)	Bago	Khayan Kamar Sae		16
Bus Line(9)	Bago	One Nhae		1
Bus Line (Princess Express)	Bago	Taung Ngoo (Technological University)		13
Bus Line (11)	Bago	Zaung Tu Htan Taw Gyi		5

Categories	Township		Distance	No
	From	to		
Three Wheels Bus Line (12)	Shwe Maw Daw Sein Thar Hlyaung So Shae lit 25	University Ba Htu Mahar Pagoda Oke Thar Golf Club Kyite Pa Dain That Nap Pin		213
Bus Line (13)	Bago	Htone Kyi		2
Three Wheels Bus Line (14)	Phat Tan-Pin Si A Way Pyay-Phat Tan	Shwe Thar Hlyaung Phat Tan University		50
Three Wheels Bus Line (15)	Kama Net-Ki Li	University Mahar Kyi Mahar Pagoda		110
Three Wheels Bus Line (15) (Kyan Tine Aung)	Construction Gate-Phayar Kyi	University Ki Li- A Wine Baw Net kyi		105
Bus Line (17)	Pyin Pone Kyi-Bago	Yangon		1
Three Wheels Bus Line (Phyo)	Shan Ywar Kyi	Bago Market		6
Bus Line (Hein Thit)	Baw Net Kyi Rd Junction-Pharyar Kyi	Pegu Industrial Zone		42
Bus Line (Han Thar Waddy)	Wan Bel Inn (Day Soon Pr)-Bago	Inn Ta Kaw		48
Bus Line (Aye Chan Aung)	Inn Ta kaw-Bago University-Myo Shaung Rd-A Wine Village	Pharyar Kyi		17
Road (Yangon-Taung Ngoo-Mandalay)	32/6	70/0	37 miles 7 furlongs	
Road (Yangon-Mawlamyaing-Myeik)	60/5	63/6	3miles 1farlon	
Road (Pegu Myo Shaung Lan)	0/0	11/3.	11miles 3farlon	
Road (Pharyar Kyi-Baw Net Kyi-Zaung Tu-Tite Kyi Rd)			42miles 1farlons	
Road (Tite kyi-Phaung Kyi-Pegu Rd)			11miles 4farlons	
Road (Inn Takaw-Htone Kyi-Kawa-Ohn Hnan Rd)			7miles 7farlons	
Road (Pegu-Thatnap Pin-Khayan-Thanlynn Rd)			4miles 4farlons	

Categories	Township		Distance	No
	From	to		
Road (Government Ward Rd)			3miles 3farlons	
Bridge (Yangon- Mandalay)(4/50)			360ft	
Bridge (Pegu Myo Shaung Rd)(1/10)			486ft	
Bridge (Pegu Myo Shaung Rd)(8/11)			306ft	
Bridge (Pharyar Kyi-Baw Net Kyi-Zaung Tu-Tite Kyi Rd)				
Bridge (1/15 Salu Stream)			270ft	
Bridge (6/22 Shwe Laung)			240ft	
Bridge (1/29 Ko lu Kwe)			340ft	
Bridge (1/42 Htawei stream)			360ft	
Bridge (under 180 ft)				9

Source: Department of Administrative Bago Township, Regional data (www.gad.gov.mm.com)

4.5.4.2. Electricity

The electricity demand of Bago Township is higher and higher due to the normally increased in population and infrastructure. [1]

4.5.4.3. Education

Location of major schools were situated in Bago Region i.e. basic education primary school (B.E.P.S.), monastery teaching school, basic education middle school (B.E.M.S), basic education high school (B.E.H.S) and university, in the Bago Township. The name and located village tract/ ward of schools are described in Table 4-10. [1]

Table 4-10 List of major school in Bago Township

No.	Name of School	Location
1	BAGO University	Oth Thar (8)
2	BEHS (1) BAGO	Office Ward
3	BEHS (2) BAGO	Market Ward
4	BEHS (3)BAGO	Zaine/ North
5	BEHS (4)BAGO	Okethar Myo Thit
6	BEHS (5)BAGO	Nan Taw Yar
7	BEHS (6)BAGO	Kalyar Ni
8	BEHS (7)	Yone Kyi
9	BEHS (8)	Him Thar Kone
10	BEHS (9)	Inn Takaw
11	BEHS (Phayar Kyi)	Pha Yar Kyi
12	BEHS (Pyin Pone Kyi)	Pyin Pone Kyi
13	BEHS (Htone Kyi)	Htone Kyi
14	BEHS (Kyaut Tan)	Kyout Tan

No.	Name of School	Location
15	BEHS (Baw Net Kyi)	Baw Net Kyi
16	BEHS (Htan Taw Kyi)	Htan Taw Kyi
17	BEHS (Okkan)	Pha Yar Kyi City
18	BEHS (Zaung Tu)	Zaung Tu
19	BEHS (Branch)Wan Bal Inn	Wan Bal Inn Village
20	BEHS (Branch)(5)	Ma Zin Ward
21	BEHS (Branch)(8)	Ward No 7
22	BEHS (Branch)(1)	Kyaut Kyi Su
23	BEHS (Branch)Lat Pan Win	Lat Pan Win Village
24	BEHS (Branch)(7)	Ward No 3
25	BEHS (Branch)(4)	Shin Saw Pu
26	BEHS (Branch)Sar lay Kwin)	Sar Lay kwin
27	BEHS (Branch)(Myo A Naut- Kha)	Butterfly Lake
28	BEHS (Branch)(Pan Hlaing)	Pan Hlaing
29	BEHS (Branch)Inn Wa	Shin Saw Pu
30	BEHS (Branch)(Net King)	Phayar Kyi
31	BEHS (Branch) (Ka Twin Cham)	Ka Twin Cham
32	BEHS (Branch)(Kamar Net)	Kamar Net
33	BEMS (Mone Tine)	Mone Tine
34	BEMS(Pone Nar Su)	Pone Nar Su
35	BEMS (Kam Myint)	Kam Myint
36	BEMS (Phayar Thone Sue)	Phayar Thone Sue
37	BEMS (Branch)(Ba Yint Naung)	Hantharwaddy
38	BEMS (Branch)(Sein Tun)	Sein Tun
39	BEMS (Branch)(Han Thar Kone)	Han Thar Kone
40	BEMS (Branch)(Myo Twin kyi)	Myo Twin Kyi
41	BEMS (Branch)(Ba Ho Si)	Ba Ho Si
42	BEMS (Branch)(Mon San Pay)	Him Thar Kone
43	BEMS (Branch)(Oke Thar)	Nan Taw Yar
44	BEMS (Branch)(Hmaw Kan)	Shin Saw Pu
45	BEMS (Branch)(Ywar Thit)	Ywar Thit
46	BEMS (Branch)(Butterfly Lake)	Butterfly Lake
47	BEMS (Branch)(Phaung Taw Oo)	Zaine /South
48	BEMS (Branch)(Oke Thar-3)	Okethar Myo Thit
49	BEMS (Branch)(Phayar Thone Sue)	Phayar Thone Sue
50	BEMS (Branch)(Oke Thar-2)	Okethar Myo Thit
51	BEMS (Branch)(Ma Zin-Ka)	Kalyar Ni

No.	Name of School	Location
52	BEMS (Branch)(Wall Street)	Phayar Kyi
53	BEMS (Branch)(Inn Takaw)	Sat Pine
54	BEMS (Branch)(Aww Takaw Law Ka)	Phayar Thone Sue
55	BEMS (Branch)(Zaine/South)	Zaine/ South
56	BEMS (Branch)(Oke Thar-4)	Kyout Taing Kan
57	BEMS (Branch)(Tap Ka Lay)	Tap Ka Lay)
58	BEMS (Branch) (Ka Li)	Ka Li)
59	BEMS (Branch)(Shan Ywar Kyi)	Shan Ywar Kyi
60	BEMS (Branch)(Ohe Bo)	Ohe Bo
61	BEMS (Branch)(A Wine)	A Wine
62	BEMS (Branch)(Mae Khone)	Mae Khone
63	BEMS (Branch)(Out Si Te-Ya)	Out Si Te
64	BEMS (Branch)(Out Si Te-Na)	Out Si Te
65	BEMS (Branch) (Zae Nyaung Pin)	Zae Nyaung Pin
66	BEMS (Branch)(Kwe Tan Shae)	Kwe Tan Shae
67	BEMS (Branch)(Kin Paing Kyong)	Kin Paing Kyong
68	BEMS (Branch)(Tar Wa Station)	Tar Wa Station
69	BEMS (Branch)(Kwan Pound)	Kwan Pound
70	BEMS (Branch) (Pyin Ma Ngu)	Puin Ma Ngu
71	BEMS (Branch)(Kawt Chae)	Kawt Chae
72	BEMS (Branch)(Htone Kyi)	Htone Kyi
73	BEMS (Branch)(Thar Yar Kone)	Thar Yar Kone
74	BEMS (Branch)(Kone Than Dine)	Kone Than Dine
75	BEMS (Branch)(Ten Mile Knoe)	Ten Mile Kone
76	BEMS (Branch)(Sar Tha Nge)	Sar Tha Nge
77	BEMS (Branch)Tha Yet Kone)	Tha Yet Kone
78	BEMS (Branch)(Win Ka Baw)	Win Ka Baw)
79	BEMS (Branch)(Baw Net Kyi)	Baw Net Kyi
80	BEMS (Branch)(Pauk Taw-Ae)	Pauk Taw
81	BEMS (Branch)(Shwe Min Gan)	Shwe Min Gan
82	BEMS (Branch)(Yamin Ywar Ma)	(Yamin Ywar ma)
83	BEMS (Branch)	Lat Pan
84	BEMS (Branch)(Zee Taw)	Zee Taw
85	BEMS (Branch)	Chin Su
86	BEMS (Branch)(Khone Tine)	Khone Tine
87	BEMS (Branch)(King Chaung)	King Chaung
88	BEMS (Branch)(Kyite Day Yone)	Kyite Day Yone

No.	Name of School	Location
89	BEMS (Branch)(Tha Htay Kone)	Tha Htay Kone
90	BEMS (Branch)(Shwe Tan)	Shwe Tan
91	BEMS (Branch)(Kha Ma Ya-8)	Wan Bal Inn
92	BEMS (Branch)(Kan Baei)	Wan Bal Inn
93	BEMS (Branch)(Phayar Kalay)	Phayar Kalay
94	BEMS (Branch)(Pyin Pone Ywar Thit)	Pyin Pone Ywar Thit
95	BEMS (Branch)(Tha Man Kone)	Tha Man Kone
96	BEMS (Branch)(Nyaung Inn)	Nyaung Inn
97	BEMS (Branch)(Hlaw Kar)	Hlaw Kar
98	BEMS (Branch)(A Sate Taung)	A Sate Taung
99	BEMS (Branch)(Kan Myint)	Kan Myint
100	BEMS (Branch)(Tamar Pin)	Tamar Pin
101	BEMS (Branch)(Than So Pin)	Than So Pin
102	BEMS (Branch)(Under World)	Under World
103	BEMS (Branch(War Paing)	War Paing
104	BEPS(Post) (121 nos)	Bago
105	BEPS(5 nos)	Bago
106	Pre School(16 nos)	Bago
107	Monastery Teaching School(Mingalar Yarma)	Nan Taw Yar
108	Monastery Teaching School(Mahar Pa Du Ma)	Kalyar Ni
109	Monastery Teaching School(Kyay Ni Kan-Oke)	Kalyar Ni
110	Monastery Teaching School(Kyay Ni Kan-Kyat)	Kalyar Ni
111	Monastery Teaching School(A Thaw Ka)	Zaine/North
112	Monastery Teaching School(Mahar Gu Ni Kar)	Inn Takaw
113	Monastery Teaching School(Sagaing)	Inn Takaw
114	Monastery Teaching School(Aung Pagoda)	Myo Thit
115	Monastery Teaching School(Gold Mountain)	Zaine/North
116	Monastery Teaching School(Nan Oo Shwe Pagoda)	Oke Thar 8
117	Monastery Teaching School(Dahmma Yadanar)	Zaung Tu
118	Monastery Teaching School(Aung Pyi Thar)	Ma Zine
119	Monastery Teaching School(Shwe Kyoung Kone)	Ma Zine
120	Monastery Teaching School(Dat Khi Na Yarma)	Phayar Kyi
121	Monastery Teaching School(Aye Say Ti)	Phayar Kalay
122	Monastery Teaching School(Pan Chan Kone)	Pan Chan Kone
123	Monastery Teaching School(Wae Lu Won)	Kyout tan
124	Monastery Teaching School(Ma Ni Yarma)	Wan Bae Inn
125	Monastery Teaching School(Aung Bawdi Pin)	Dae Soon Par

No.	Name of School	Location
126	Monastery Teaching School(Ngar Kyi Inn)	Htone Kyi
127	Monastery Teaching School(Thike Kone)	Okethar Myo Thit
128	Monastery Teaching School(Paw Taw Mu)	Nan Taw Yar
129	Monastery Teaching School(Yadanar Aung)	Zaine/North
130	Monastery Teaching School(Thiri Zayar)	Zaine/South
131	Monastery Teaching School(Nan Oo Pone Nya Shin)	Sin Phyu Kwin
132	Monastery Teaching School(Mahar Bawdi)	A Kyut A Lut
133	Monastery Teaching School(That Da Ma Gone Yi)	Nyaung Inn

Source: Department of Administrative Bago Township, Regional data (www.gad.gov.mm.com)

The diseases of high prevalence reported in 2013 are Tuberculosis (TB), followed by Diarrhea, TB and snakebites. With reference to the Township Health Profile 2014 of Bago Township, no accidental work injuries reported to the township hospital in 2013. The common diseases are shown in Table 4-11.

Table 4-11 Common Diseases in the Bago Township

Diseases	Bago Township	
	Morbidity	Mortality
Malaria (Per 100000P)	9	1
Dysentery	308	-
Diarrhea (Per 100000P)	942	1
TB (Sputum+)(Per 10000P)	442	-
Hepatitis	-	-

Table 4-12 Lists of hospital in the Bago Township

Hospital	Beds/Services	Responsible
Pegu General Hospital	500	Government
Zaung Tu District Hospital	16	Government
Htan Taw Kyi District Hospital	16	Government
Phayar Kyi District Hospital	16	Government
Pharkalay District Hospital	16	Government
Joe Thein	25	Private

Source: Department of Administrative Bago, Regional data (www.gad.gov.mm.com)

4.6. CULTURAL AND VISUAL COMPONEMTS

Bago Township is growing into a busy and vibrant community. The population fluctuates; however, there has been steady growth over the last decade. It tends to be a stopover on a journey rather than a destination. It has a number of sites that are interesting; however, there is no main attraction. Visitors to the town are generally visiting for work, investment or family reasons.

5. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

5.1. IMPACT IDENTIFICATION

The development of infrastructure for the proposed project likely to happen changes in the local environment in terms of physical, biological and socio-economic aspects along with the perspective on both positive and negative impacts. The potential environmental impacts brought by various activities of proposed factory project will be identified and judged by site surveying with checklist, meeting with client team, including plant manager and supervisor, representatives from the factory operators and assessing the environmental baseline information for operation and decommissioning phases along with its mitigation measure.

5.1.1. Positive Impact

During the project implementation, local people can get job opportunities in administrative sectors, office works, transportation sectors, skill and unskilled workers, etc. Due to the implementation of the project, there will be employment opportunities especially for workers from the local community. Employees will also improve more in their professional knowledge and skills. The net effect of job creation is the improvement of the livelihoods and living standards of the beneficiaries and poverty reduction, development of local people's livelihood. Cause of the proposed project is located in Bago Industrial Zone, there may have business opportunities to local people. Local people can have a market by selling foods, snacks and drinks nearby the factory.

5.1.2. Negative Impact

The following Figure 5-1 briefly described the potential negative impacts of the proposed project. There are four main types of impacts; impact on environmental resources, impact on ecological resource, impact on human and impact of waste generation.

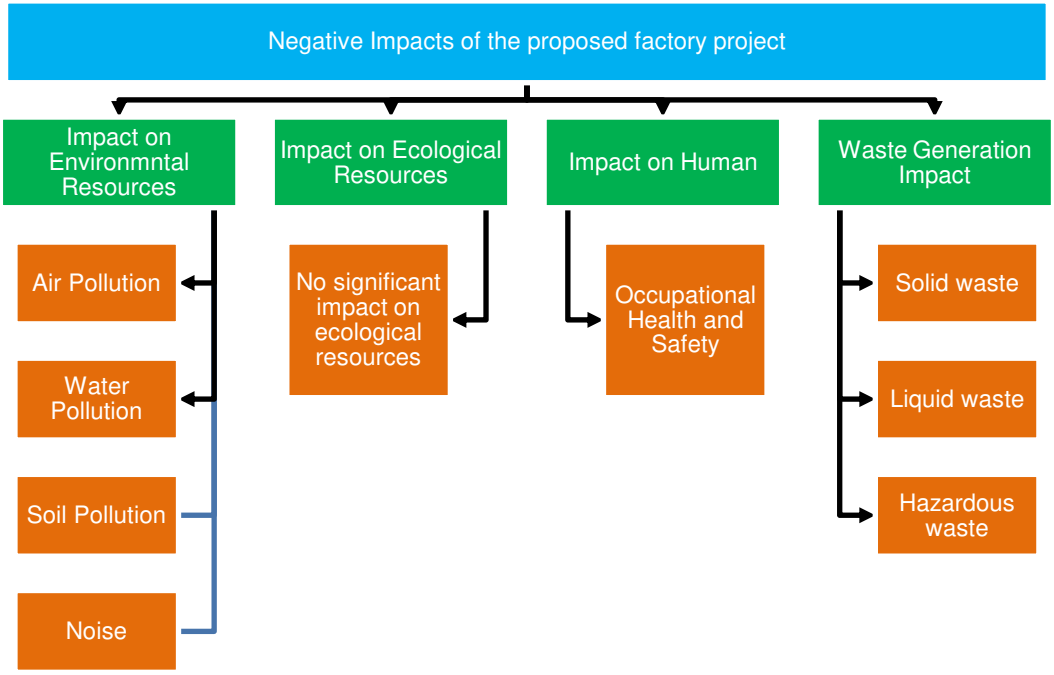


Figure 5-1 Potential negative impact affect from proposed factory project

5.2. METHODOLOGY FOR THE ASSESSMENTS

The assessment of each impact is based on consideration of the magnitude, duration, spatial and frequency of activities, which are going to be carried out during three phases and characteristics of the project site. The assessment is qualitative and the significance of each impact is classified into 5 categories in overall.

The following methodology has been applied to assess the environmental impacts of the factory mainly on air, water, land, biodiversity, including human beings. Each source of impact has been assessed by four parameters, magnitude, duration, extent and probability and each assess point have 5 scales as mentioned in Table 5-1.

Table 5-1 Impact assessment parameters and its scale

Assessment	Scale				
	1	2	3	4	5
Magnitude (M)	Insignificant	small and will have no effect on working environment	Moderate and will result in minor changes on working environment	High and will result in significant changes on working environment	Very high and will result in permanent changes on working environment
Duration (D)	0 - 1 year	2 - 5 year	6 - 15 year	Life of operation	Post Closure
Extent (E)	Limited to the site	Limited to the local area	Limited to the region	National	International
Probability (P)	Very improbable	Improbable	Probable	Highly probable	Definite

Then, the Significant Point (SP) calculated by following formula.

Significant Point (SP) = (Magnitude + Duration + Extent) * Probability

Impact Significance: Based on calculated significant point, impact significance can categorize as follows:

Significant Point (SP)	Impact Significance
<15	Very Low
15-29	Low
30-44	Moderate
45-59	High
60	Very high

5.3. POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION AND DECOMMISSIONING PHASE

Construction phase: The project factory is already constructed during environmental assessment study and site visit. Therefore, the proposed project is located in industrial zone and already finished the construction, the potential impact on environment is not assessed and affected must be caused the construction period.

Decommissioning phase: The proposed duration of the investment shall be 50 years. The term of the Lease shall be initial 50 years commencing from the date of signing of the Lease Agreement between Local owner and GT Industrial (Myanmar) Co., Ltd. for proposed project site for 16,915.8748 m^2 of land. The project of land and building will be restitution to land owner after close the operation. Therefore, the assessment study cannot be needed for environmental impact assessment during decommission phase.

These two phases of operation shall be represented by land owner. If the owner will be demolished their factory, they will need mitigation and monitoring plan for environmental impact. Therefore, Myanwei's environmental assessment team presented for monitoring plan during decommissioning phase.

5.4. SIGNIFICANT IMPACTS OF PROJECT ACTIVITY AND MITIGATION MEASURE

The project activities, their impacts and significance of impact are provided in Table 5-2.

Table 5-2 Evaluation and Perdition of Significant Impacts and Mitigation Measures on Operation phase

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Impact on Environmental Resource									
Air	• Dust and GHGs emission from vehicles used for transporting raw materials and final products • Emission from emergency diesel generator and vehicle movement	3	4	2	3	27	Low	• Air pollution in atmosphere. • Inhaling them can increase the chance you'll have health problems. • People with heart or lung disease, older adults and children are at greater risk from air pollution.	• To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. • The factory uses chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. • Ensuring vehicles, compressor and generator are well maintained.
Water	• Production process	1	4	1	1	6	Insignificant	• The factory not generated wastewater from production process on CMP basic	• No Mitigation Measure
Soil	• Engine oil leaks, spills at diesel storage and during fuel refueling.	1	4	1	1	6	Insignificant	• The factory compound area was paved with concrete and hence, contamination due to	• No Mitigation Measure

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
								the oil spillage at this area is insignificant.	
Noise and Vibration	• Generating noise from the production machinery	1	4	1	1	6	Insignificant	• The factory not operate heavy machinery • the major noise source of CMP basic operation activities such as cutting, stitching/finishing and packaging by respective machines. There is insignificant impact on surrounding environment	• No Mitigation Measure
Impact on Ecological Resources									
Flora and fauna on terrestrial and aquatic life	Operation of the manufacturing of Brassieres, underwear and it's accessories	1	4	1	1	6	Insignificant	• Not Significant Impact on Ecological Resources	• No Mitigation Measure

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
	factory								
Impact on Human									
Fire	• Poor electrical installations • Waste disposed area raw materials and chemical storage	3	5	2	4	40	Moderate	• Serious damage to property and even injury and death	• To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. • Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. • The emergency fire alarms are installed at the factory for alerting the workers in case of fire. • The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
Occupational Safety	• Accidental cases cause by operating machines. • Unloading, mixing, cutting, pressing and packaging activities. • Accidental cases of thermic fluid	3	4	1	4	32	Moderate	• Accident in workplace (physical injuries or even death) can occur during operation.	• First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. • According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
	heater								reducing optical problems of the workers. • Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. • To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.
Health	• Influx of people • Noise from the generating of the emergency generators	2	4	1	2	14	Very Low	• Change in demographic structure, new diseases form immigrant workers • To cause a range of health problems ranging from stress, poor concentration, productivity losses in the workplace, and communication difficulties and fatigue from lack of sleep, to more serious issues	• Manage the drainage systems of the factory to prevent health risk of the workers. • The maximum allowable noise level for workers is 90dB(A) for 8hours exposure a day. Thus, adequate protective noise impact measures in the form of ear muffs/ear plugs to the workers working in high noise areas
Waste Generation									

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Solid Waste	• Residual pieces of fabric scraps from the production lines • Waste from packaging materials • Waste from kitchen, dormitory and office.	3	4	1	4	32	Moderate	• Surrounding environmental pollution and soil contamination	• Provides separate garbage bins at each building. • All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area • Final wastes should be disposed by using Bago Municipal service.
Liquid Waste	• Septic system and sewage. • Domestic liquid waste disposal from office, kitchen and dormitory.	2	4	2	2	16	Low	• Contamination of soil, surface water, ground water	• Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Waste	• Used oil and lubricant discharged from the maintenance of vehicles and machines.	2	4	1	2	14	Very Low	• Reduce the risk of contamination from fuels, oils and hazardous wastes • Response effectively to incident and accident	• Proper inspection and maintenance in storage of hazardous waste. • Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. • The empty chemical containers will hand over to suppliers for recycle or appropriate disposal • The hazardous wastes are transported by specially licensed

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									carriers and disposed in a licensed faculty (eg., DOWA and Bago Municipal)
Risk Assessment									
Electrical failures	• Aging Equipment. According to the 2019 Plant Engineering Maintenance Study, aging equipment is the leading cause of equipment failure, accounting for 40 percent of unplanned downtime in plants. • Operator Error. • Lack of Preventive Maintenance. • Over-Maintenance.	2	4	1	2	14	Very Low Insignificance	• Equipment failures such as transformers and rotating machines, human errors and environmental conditions	• Make regular inspection and electrical maintenance. • Never touch a fallen power line. • Avoid contact with overhead power lines during cleanup and other activities.
Equipment malfunctioning	• Improper operation. Failure to perform preventive maintenance • Too much preventive	3	4	1	3	24	Low	• An asset doesn't operate as expected or stops working altogether. Equipment failure, equipment malfunctions can	• Establish a maintenance schedule. When repairs and upkeep take place on machines at regular intervals, these efforts can significantly improve the equipment reliability of these systems.

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
	maintenance. • Failure to continuously monitor equipment.							cause production delays, safety issues, and missed milestones	• Eliminate potential defects. • Utilize equipment monitoring.
Mechanical and structure failures	• Industrial machine failure includes things like bearing failure, metal fatigue, corrosion, misalignment, and general surface degradation. • Incorrect selection of materials. • Errors in design calculation and detailing. • Improper construction techniques and insufficient quality control and supervision. • Chemical attacks on concrete structures. • External mechanical	3	4	1	3	24	Low	• This loss of usefulness is broken down into three main categories: obsolescence, surface degradation and accidents • Random factors (random causes), such as wind, snow, storms, etc., and those caused by man (resulting from human error)	• Make regular inspection, reactive maintenance, preventative maintenance, predictive maintenance Reducing failures of buildings and other structures requires competent design; clear communication of that design to the contractor by means of engineering drawings, etc.; careful and competent construction; and effective construction supervision.

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
	factors.								

Table 5-3 Evaluation and Predication of Significant Impacts and Mitigation Measure on Decommissioning Phase

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	S			
Air	Demolish of buildings and related materials Transportation of demolished materials	3	1	1	4	20	Low	Emissions of particulate matters and carbon dioxide gases into the air	Spray water twice a day Cover mesh trap around the decommission area Install shading net about 2 meters above temporary fence of decommission area Carry broken material with cover by canvas.
Water pollution	Sewage form decommissioning workers Demolition machinery equipment	3	1	1	3	15	Low	Contamination of surface water and ground water	Systematically demolish the septic tanks.
Soil	Demolish of buildings and related materials Transportation of demolished materials	3	1	1	3	15	Low	Contamination of soil	Manage the spillage of oil and diesel and sewage.
Noise and	Decommission activities	3	1	1	3	15	Low	Noise pollution to the	Carry out the activities during day time.

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	S			
Vibration	Transportation of demolished materials							surrounding	Maintain the machines and vehicles to reduce noise pollution. Provide the ear plugs to the workers.
Waste disposal	Demolished debris such as bricks, concrete materials	2	1	1	3	12	Very Low	Dumping to the surrounding environment	Recyclable materials and dispose to the define areas.
Hazardous waste	Used lubricants from decommissioning vehicles and machines	2	1	1	3	12	Very Low	Spillage of lubricant	Manage the disposal way of hazardous waste.
Occupational Health and Safety (Accidents, Injuries)	Decommissioning activities Transportation of demolished materials	3	1	2	3	18	Low	Injuries and accidents	Provide protective fencing or demarcation with tape at the boundaries of dangerous / hazardous zone and the appropriate warning signs, marking and safety signs and installation of the lost time injury notice board. Clean up excessive waste debris and liquid spills regularly. Use the third-party expert assisted by trained personnel to identify and remove hazardous materials.

6 ENVIRONMENTAL MANAGEMENT PROGRAM

6.1. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

An Environment Management System (EMS) is a framework that helps an organization achieves its environmental goals through consistent review, evaluation, and improvement of its environmental performance. The assumption is that this consistent review and evaluation will identify opportunities for improving and implementing the environmental performance of the organization. The EMS itself does not dictate a level of environmental performance that must be achieved; each organization's EMS is tailored to its own individual objectives and targets.

An EMS encourages an organization to continuously improve its environmental performance. The system follows a repeating cycle the organization first commits to an environmental policy, then uses its policy as a basis for establishing a plan, which sets objectives and targets for improving environmental performance. The next step is implementation. After that, the organization evaluates its environmental performance to see whether the objectives and targets are being met. If targets are not being met, corrective action is taken. The results of this evaluation are then reviewed by top management to see if the EMS is working. Management revisits the environmental policy and sets new targets in a revised plan. The company then implements the revised plan. The cycle repeats, and continuous improvement occurs.

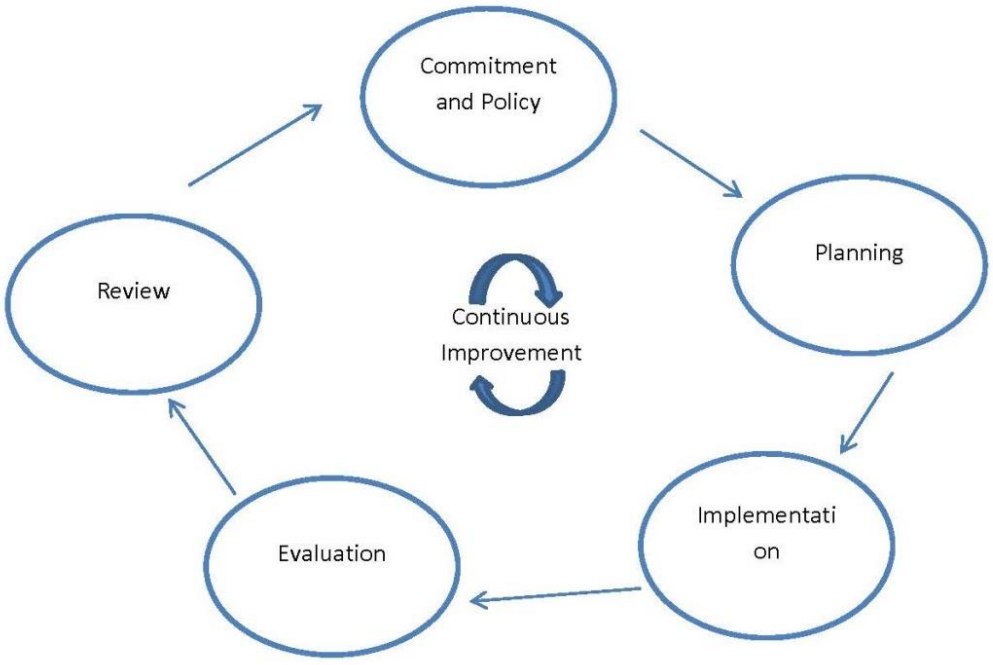


Figure 6-1 Continuous Improvement Circle

- **Commitment and Policy** – Top management commits to environmental improvement and establishes the organization's environmental policy. The policy is the foundation of the EMS.
- **Planning** – An organization first identifies environmental aspects of its operations. Environmental aspects are those items, such as air pollutants or hazardous waste that can have negative impacts on people and the environment. An organization then determines

which aspects are significant by choosing criteria considered most important by the organization. For example, an organization may choose worker health and safety, environmental compliance, and cost as its criteria. Once significant environmental aspects are determined, an organization sets objectives and targets. An objective is an overall environmental goal (e.g., minimize use of chemical X). A target is a detailed, quantified requirement that arises from the objectives (e.g., reduce use of chemical X by 25% by September 1998). The final part of the planning stage is devising an action plan for meeting the targets. This includes designating responsibilities, establishing a schedule, and outlining clearly defined steps to meet the targets.

- **Implementation** – An organization follows through with the action plan using the necessary resources (human, financial, etc.). An important component is employee training and awareness for all employees. Other steps in the implementation stage include documentation, following operating procedures, and setting up internal and external communication lines.
- **Evaluation** – A company monitors its operations to evaluate whether targets are being met. If not, the company takes corrective action.
- **Review** – Top management reviews the results of the evaluation to see if the EMS is working. Management determines whether the original environmental policy is consistent with the organization's values. The plan is then revised to optimize the effectiveness of the EMS. The review stage creates a loop of continuous improvement for a company.

6.1.1. Institutional Requirement

GT Industrial (Myanmar) Co., Ltd. will manage the development of the proposed project. The project proponent should appoint Health, Safety and Environment (HSE) issues throughout the duration of the project phases. HSE team is responsible for implementation and monitoring of EMP and Environmental Monitoring Plan (EMP) as well as coordination with local authorities and the nearby communities. The HSE Team also makes regular review of EMP to cover all potential impacts, amendments and modifications.

6.1.2. Responsibilities of the EMP

In order to ensure the sound development and effective implementation of the EMP, it will be necessary to identify and define the responsibilities. The environmental management practices, procedures, and responsibilities are defined herein to get full compliance with the existing environmental policy, laws, rules and regulations of the Republic of the Union of Myanmar. The following entities should be involved in the implementation of this EMP:

GT Industrial (Myanmar) Co., Ltd: The proponent will be charged with the responsibility for ensuring that the proposed development has been accomplished in an environmentally sound manner. This can be achieved by inclusion of environmental specifications in the tender specifications, selection of environmentally conscious contractors, and supervision to ensure that the objectives of this EMP are met. The implementation of Environmental Management Plan (EMP) process will prepare and follow up by appointed persons for health, safety, and environmental management under the instruction of management team of GT Industrial (Myanmar) Co., Ltd. for EMP implementation facilities.

ECD (Bago Region): The responsibility of ECD is to exercise general supervision and coordinating over all matters relating to the environment and to be instrumental in providing guidance for recognized regulatory frameworks.

Third-Party Environmental Consultant: The environmental consultant will have to ensure that the proposed EMP is up to date and is being followed properly by the proponent. Periodic audits of the EMP will have to be done to ensure that its performance is as expected, by comparing with operating standards so that any corrective actions can be taken.

6.1.3. Structure and Responsibilities for the EMP Development and Implementation

GT Industrial (Myanmar) Co., Ltd. shall manage the development of the proposed project. The project proponent should appoint Health, Safety and Environment (HSE) issues throughout the duration of the project phases. HSE team is responsible for implementation and monitoring of EMP and Environmental Monitoring Plan as well as coordination with local authorities and the nearby communities. The HSE Team also makes regular review of EMP to cover all potential impacts, amendments and modifications. The HSE officer is responsible to the HSE components of the project and on matters relating to the implementation of the EMP throughout operation life.

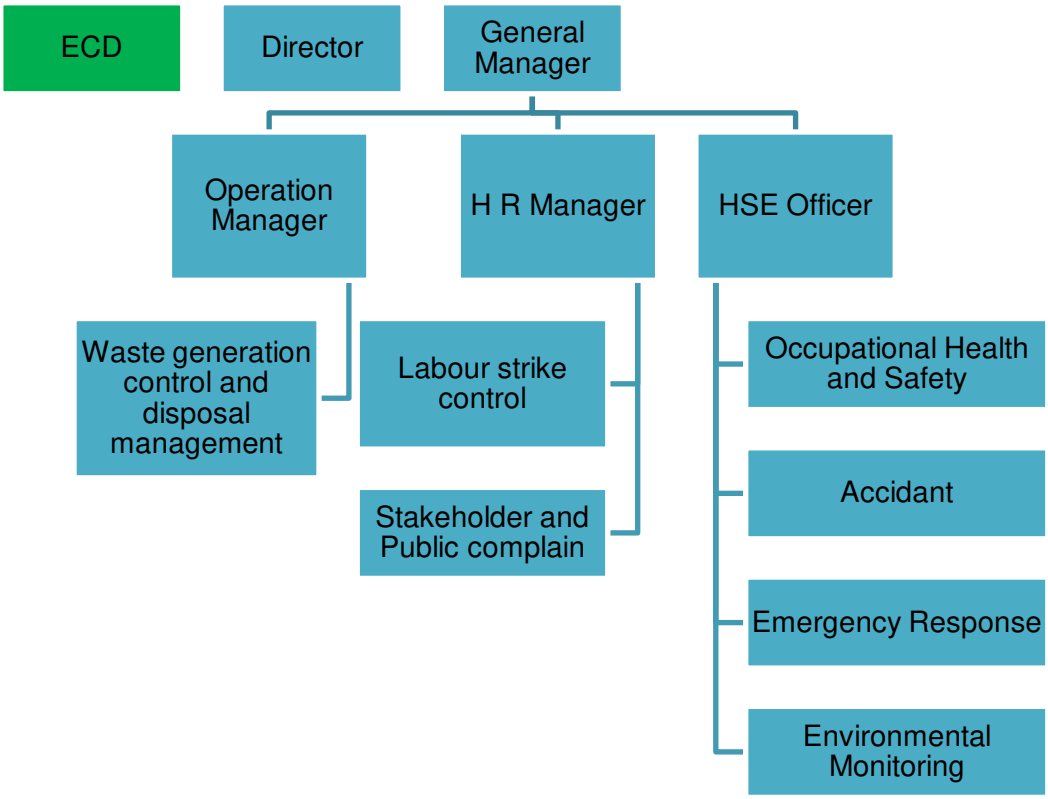


Figure 6-2 Organization Structure of Environmental Management Plan

Table 6-1 Responsibilities of HSE members

Roles	Responsibilities
General Manager	The General Manager will be assisted by the Operations Manager and also the HR and HSE Officer. In terms of environmental protection commitments, the Operation Manager will be the key driving force and will be responsible for: • Establishing overall environmental direction and policy • Ensuring the implementation of the EMP

Roles	Responsibilities
	• Ensuring investigation of all environmental incidents are reviewed and that reports are submitted on time • Ensuring an effective system of internal and external communication is in place • Providing advice regarding the environmental program
Operation Manager	The Operation Manager will assist the General Manager in looking into the overall environmental matters during the operational phase of the Project. The Operation Engineer will also be responsible for: • Adherence to the overall environmental direction and policy • Ensuring the implementation of the recommended actions in the investigation of all environmental incidents • Managing resources for operation wastes
HR Manager	The HR Manager will carry out the day-to-day management of workers and social issues in the factory. The HR Manager will be responsible for: • Assisting the management in publicising and implementing corporate and local policies, objectives and programs • Maintaining key environmental-related documents and information • Communicating/ liaising with the local authorities on environmental issues
HSE Officer	The HSE Officer will be the key person in charge of all environmental matters pertaining to the site. The HSE Officer will be responsible for: • Coordinating the implementation of environmental programs, including monitoring of the project site environmental performance • Performing periodic internal environmental audits and inspections to ensure compliance with the legal environmental requirements • Ensure a monitoring system is in place to track and report all health, safety and environmental incidents; • Carry out a thorough initial site inspection of environmental controls prior to work commencement; • Record and provide a written report to the General Manager and production team of non-conformances with the EMP and require the HR Manager to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

6.2. ENVIRONMENTAL MANAGEMENT ACTION

The EMP for GT Industrial (Myanmar) Co., Ltd. has been prepared to address potential issues based upon discussion with factory management, workers, local community view, stakeholder consultation and from the site visit of experts. The EMP is additional to and compliments the factory's safety management system. The following environmental issues that require environmental management plans based upon the potential impacts of activities by GT Industrial (Myanmar) Co., Ltd. are as follows:

6.2.1. **Air Pollution/Dust Management Plan**

Objectives:	• To minimize the adverse impact to air quality caused by stack gas emission from generator and also dust management generated from vehicular movement. • To comply with relevant government rules
Performance Indicator:	• Nil complaints relating to air quality management • Extraction equipment maintained as per maintenance schedule

Management Plan	• The factory must be plant in its premises which reduce the carbon emission by the factory and minimize the air pollution • Periodic maintenance of generator is conducted • Prohibiting the burning of waste materials at the project site • Providing mask to the employees who work in any dusty area • Installation the windscreens to breakup the wind flow
Estimated Cost	• 1,000,000 Kyats per year
Responsibility	Management of the factory; • Head of maintenance: Total implementation of above of air pollution management plan • Production manager: Air quality in the production area is good enough • Manager: To hire organization/independent third-party testing air quality • EHS officer-Monitor the hygiene of ambient air quality in surrounding of the factory

6.2.2. **Noise Management Plan**

Objectives:	• To avoid nuisance noise to nearby residents generated from generator and other machineries. • To comply with noise standard of National Environmental Quality (Emission) Guideline
Performance Indicator:	Nil complaints relating to noise nuisance
Management Plan	• Building noise insulated generator room and ensure satisfactory maintenance of relevant equipment • Impose speed limit to track and vehicles at the transportation route. • Emergency use of diesel generator must be ensured by soundproof • Noise level monitoring programs must be designed and conducted by trained specialist at production area
Estimated Cost	• 500,000 Kyats per year
Responsibility	Manager • To hire organization/independent third party testing noise level • Ensure that all workers use PPE during operation

6.2.3. **Solid Waste Management Plan**

Objectives:	• To minimize waste generation by developing strategies for the management and disposal of all waste in a manner that is sustainable and sensitive to the environment • To comply government waste management policy
Performance Indicator:	Nil complaints relating to noise nuisance
Management Plan	• The factory does not dispose the any sort of solid wastes on the factory premises or not dump in the surface water like a local pond, canal or river, etc. • The solid wastes are stored properly and separately in a certain location in proper

	manner such as cloth scrap waste need to collect at one place and poly/carton waste should collect at another place. Metal/Hazardous material waste such as fudge electric bulbs and empty chemical container is stored another in separate place of storage area. • Recycle wastes like cloth scrap, carton box, plastic sheet, etc. are hand over to local buyer for reuse and waste-tracking record shall be kept every day. • The metal or glass waste of electric bulb is taken by the suppliers to recycle them. • The daily domestic waste of worker hand-over to Bago Municipal waste collector to collect every day • Daily wastes are stored clearly labeled containers and in such a manner that all related personnel are provided proper training about the relevant issues.
Estimated Cost	• 50,000 Kyats per month
Responsibility	Manager (HR) • Responsible for overall site cleanliness and waste management • Regular waste collection to minimize excessive waste storage

6.2.4. **Wastewater Management Plan**

Objectives:	• Prevent pollution underlying groundwater sources
Performance Indicator:	• Implement an environmental friendly sewerage system
Management Plan	• Ensure that drainage lines and sewage system of factory and the nearest public drainage are watertight and sufficient capacity • Regular check and maintain sewerage facility. • Clean the factory drainage to avoid odor emission and to avoid the block of water flow • Regularly monitor and check the discharge temperature from boiler wastewater before directly discharge into factory‘s final drainage
Estimated Cost	• 500,000 Kyats per year
Responsibility	• Manager -To hire organization/independent third-party testing wastewater quality • EHS officer-Monitor the condition of factory’s drainage and sewage system

6.2.5. **Energy Management Plan**

Objectives:	• The energy management is aimed at minimizing electricity use results from site equipment and working lighting • Comply with the standard of energy use
Performance Indicator:	• Annual energy savings for all department facilities • Annual fuel saving for generator and vehicle
Management Plan	• Installation of timers and thermostats to control heating and cooling • Energy saving light installed in different area of the factory for saving energy • Used of energy saving devices must be installed • Ensure that good housekeeping measures such as turning off equipment and lights when not in use

Estimated cost	• Approximately 1,000,000 Kyats per year
Responsibility	Manager • To arrange energy, audit technical personnel • To monitor and record electricity consumption, other related energy issues and take necessary actions if any problem arises

6.2.6. **Water Consumption Management Plan**

Objectives:	• The water consumption management is aimed at minimizing ground water use
Performance Indicator:	• Prohibitions on accessing and using underground water without a license • Water consumption saving of general water use from groundwater
Management Plan	• Install water meter for internal control of water consumption • All staff trains and makes aware conservation practices and proper methods of water use must be place in toilets and other areas of water consumption • The contamination of water is avoided by suitable management of oil and fuel used in machineries and vehicles • Trees plantation surrounding the factory
Estimated cost	• 100,000 Kyats per year
Responsibility	Manager • Arrange audit on water usage controls environmental officer

6.2.7. **Emergency Response and Disaster Management Plan**

Objectives:	• Reduce the risk of accidents at the factory area
Performance Indicator:	• Establish a safe working environment
Management Plan	• The factory management has taken proper measures to handle any emergency situation like fire, earthquake, flood and storm • Provision and inspection of firefighting equipment and fire hydrant system in all the sections • A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers • Periodic inspection of safety relief valve provided with pressure vessels and equipment, preventive maintenance; aware the workers about electric shock by necessary training. • Regular fire drill operation is conducted • Workers are informed about what to do in earthquake like stay in a safe place such as under table of desk, not to try move outside during earthquake, workers who will be outside during earthquake shall remain stay out of the building, trees, lump post, etc. Other relevant safety instruction of emergency situation it informed to workers by training • Workers are aware of dangers from physical hazards such as obstacles covered by floodwater (storm debris, drainage opening, ground erosion) and from displaced reptiles (Snake) or other animals. • A medical team has been prepared for primary treatment (First Aid)

	• Prepare an emergency contact directory consisting contact numbers of nearest fire service, local police station, hospitals, etc. and display it in a place that everybody can see it easy. • Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management • Ensure proper training of the employees about the disaster management, fire safety as well as occupational health and safety
Estimated cost	Approximately 1,500,000 Kyats per year
Responsibility	Manager and EHS officer • Arrange firefighting training after every 3 months • Responsible for fire control and response • Monitoring daily danger warning and bans

6.3. ENVIRONMENTAL MONITORING PLAN AND REPORTING

The EMP cell members responsible may conduct daily, weekly or monthly general inspections of the project area and facilities. The objectives are to identify non-compliances to EMP. Table 6-2 is provided the environmental monitoring schedule for GT Industrial (Myanmar) Co., Ltd. The factory submits monitoring report to the Environmental Conversation Department not less frequently than every six (6) months, as provided in a schedule in the EMP,

Table 6-2 Environmental Monitoring Plan During Operation Phase

Issues	Parameter	Frequency	Estimated Cost (Kyats)	Area to be monitored	Responsible Person/Organization
Common	Monitoring of mitigation measures	Yearly (3 years after operation)	3,000,000/year	The project	(General Manager) GT Industrial (Myanmar) Co., Ltd.
Air quality	SO2, NO2, CO, CO2, PM2.5, PM10	Biannually monitoring and reporting to ECD (first 3 years after operation)	1,000,000/year	Point in the factory	(HSE Officer) GT Industrial (Myanmar) Co., Ltd.
Noise Quality	Noise level in decibel (dBA)	Once per month	500,000/year	Point in the factory	(HSE Officer) GT Industrial (Myanmar) Co., Ltd.
Light intensity	Illuminance	Monthly	200,000/year	Sewing cutting and QC areas	(HSE Officer) GT Industrial (Myanmar) Co., Ltd.
Waste Generation	Solid waste, Liquid waste and Hazardous waste	weekly	840,000/year (35,000/track load)	Disposal area in the factory compound (Recycle store and waste store)	(Operation Manager) Environmental Management Team GT Industrial (Myanmar) Co., Ltd.
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	600,000/year	At the factory	(Operation Manager, HR Manager and HSE Officer) GT Industrial (Myanmar) Co., Ltd.

Table 6-3 Environmental Monitoring Plan During Decommissioning Phase

Issues	Parameter	Frequency	Estimated Cost (Kyats)	Area to be monitored	Responsible Person/Organization
Air quality	SO2, NO2, CO, CO2, PM2.5, PM10	One time during this phase	500,000	A suitable point of project site	Land Owner
Noise	Noise level in decibel (dBA)	One time during this phase	150,000	A suitable point of project site	Land Owner

6.4. CAPACITY BUILDING AND TRAINING PLAN

The emergency preparedness is vital, as quick and correct response is necessary in case of emergency to reduce injuries, harm and other damage. Care should be given for during processing activities in order to prevent synthetic errors and accidental cases (e.g., electricity shock and fire hazards).

The emergency response plans should be established for handling all foreseeable emergencies in the workplace and must provide the following;

6.4.1. Assignment of Responsibilities

All senior staff such as a line/production manager or safety officer should be assigned to lead the emergency response team and charged with the duties of (1) assessing the emergency and taking necessary actions (2) overseeing the implementation of the emergency response plan (3) organizing regular drill (4) ensuring all emergency equipment is well maintained.

6.4.2. Emergency Procedures

Emergency procedures are operating instructions for employees to follow in emergency case About work safety in the concerned processing, the management team should

a) Identify and list out all possible emergency situations in the workplace
b) Assess the effects and impacts of the emergency situations
c) Establish emergency response plans
d) Provide and maintain emergency equipment and other necessary resources
e) Ensure that staff are familiarized with the arrangements in case of emergencies by providing procedural instructions and employee training and organizing drills

6.4.3. Training for Emergencies

The type, amount and frequency of training varies, depending upon the task's employees are expected to perform. Although training must be provided to employees at least annually, safety meetings and drills should be conducted at more frequent intervals.

Regardless of the specific type of facility, training should include, though not be limited to the following;

- Hazard recognition and prevention (fire, explosion, etc.)
- Proper use of fire extinguishers
- Emergency reporting procedures

- Preventive maintenance
- Hazardous materials spill response
- First Aid

6.4.4. Fire Prevention and Protection

The fire prevention and protection program must address the following topics:

Prevention; policies, practices and procedures designed to keep the conditions necessary for a fire from coming together

- Hot work permits
- Lockout/tag out policies
- Design specifications for storage of flammable materials

Severity reduction; policies, practices and procedures designed to reduce the spared of fire and end the fire.

- Emergency plans
- Alarm systems
- Portable fire extinguishers
- Fire Protection Equipment

Cleanup; policies, practices and procedures designed to return the affected area to an operational level and reduce other losses created by improper cleanup

- First aid
- Removal of debris to an appropriate waste site
- Equipment and facility repair

6.4.5. Fire Protection Equipment

1. Explosion Suppression Systems: Explosion suppression systems should be used in unusually hazardous areas such as elevator legs, boots and head, or in areas such as bins, distributors and tanks.

2. Portable Fire Extinguishers: All buildings within a facility must have fully charged and operable portable fire extinguishers. If employees are expected to use portable extinguishers or other firefighting equipment against incipient fires, they must be trained to use the equipment. Training must include the following:
   - Correct type of extinguisher to use on different classes of fire
   - Proper techniques for use of the equipment to extinguish a fire
3. Standpipes and Hoses: All areas within a facility that are above 75 feet from ground level and in which combustible materials other than grain are stored should have wet or dry standpipes and hoses installed.

4. Automatic Sprinkler Systems: Automatic sprinkler systems are recommended in areas containing combustible materials.

5. Fire Hydrants: All grain and feed mill facilities should have adequate public or private fire hydrants on site. Each fire hydrant should have an adequate water supply.

6.4.6. Fire Safety and Evacuation Plan

Fire Evacuation plans should include the following information

- Emergency escape routes must be clearly shown on floor plans and workplace maps
- Employers must know that their employees know the emergency escape routes
- Procedures for employees who must remain to operate critical equipment before evacuating
- Identification and assignment of personnel responsible for rescue or emergency medical aid

Fire Safety Plans should include the following information:

1. Procedure for reporting a fire or other emergency
2. Site plans indicating the following
   - The Occupancy assembly point
   - The locations of fire hydrants
   - The normal routes of fire department vehicles access
3. Floor Plans identifying the locations of the following
   - Exits
   - Primary evacuation routes
   - Secondary evacuation routes
   - Accessible egress routes
   - Areas of refuge
   - Exterior area for assisted rescue
   - Manual fire alarm boxes
   - Portable fire extinguishers
   - Occupant-use hose stations
   - Fire alarm annunciators and controls

The following American National Fire Fighting Association (NFFA) Standards must be following.

Table 6-4 American National Fire Fighting Association (NFFA) Standards

No.	Parameters	Proposed Capacity	Remark
1.	Fire water flow	14 bars	
2.	Deluging rate	12.0 liters/m^2/min	
3.	Foam rate	10.0 liters/m^2/min	
4.	Maximum water pressure	190 liters/min	For storage area

Emergency evacuation Drill: An exercise performed to train staff and occupants and to evaluate their efficiency and effectiveness in carrying out emergency excavation procedures

Employee Training and Response Procedures: Employee shall be trained in the fire emergency procedure described in their fire evacuation and fire safety plans and training should be based on these plans;

Frequency: Employee shall receive training in the contents of fire safety and evacuation plans and their duties as part of new employee orientation and at least annually thereafter. Records shall be kept and made available to the fire code official upon request.

Employee Training Program: Employee shall be trained in fire prevention, evacuation and fire safety in accordance with the following sections.

Fire Prevention Training - Employee shall be apprised of the fire hazards of the materials and processes to which they are exposed. Each employee shall be instructed in the proper procedures for preventing fires in the conduct of their assigned duties

Evacuation Training – Employees shall be familiarized with the fire alarm and evacuation signals, their assigned duties in the event of an alarm or emergency, evacuation routes, areas of refuge, exterior assembly areas and procedures for evacuation

Fire Safety Training – Employee assigned fire-fighting duties shall be train Toiled to know the locations and proper use of portable fire extinguishers or other manual fire-fighting equipment and the protective clothing or equipment required for its safe and proper use.

6.4.7. **Site Fire Control**

1. Alert other people through fire alarm
2. If small, control using an extinguisher
3. Contact fire brigade if not under immediate control
4. Attend to human life in immediate danger
5. For electrical fires turn off power before fighting
6. Once out of the building, stay out. Do not allow people to go back into the burning building to collect valuables. While evacuating the building, close doors (but do not lock) to slow down the spread of fire
7. Obey all instructions
8. Proceed to an emergency evacuation area (Muster Point)

6.4.8. **Employee Information and Training**

Employees must be informed about any operations in their work area where hazardous chemicals or materials are present. They must also be informed about the locations and availability of the hazard communication program, list of chemicals and SDSs. Employees must receive training on the following:

- Methods for detecting the presence or release of a hazardous chemical, such as monitoring devices and the visual
- appearance or odor of the chemical
- Physical and health hazards of chemicals in their work area
- How to protect themselves using work practices, emergency procedures and personal protective equipment
- How to interpret the information on the labels and MSDS

6.4.9. **Health and Safety Training Plan for Worker**

Health and Safety Training plan currently used and provided in GT Industrial (Myanmar) Co., Ltd. to all employees and workers by trainings internally and externally. Specific trainings are recommended and conducted according to the health and safety guidelines to enhance worker's health and to prevent all potential risks and hazards might occur in the factory. All required trainings related to

health and the respective departments propose safety or operational parts, top management makes decision and HR organizes and conducts the trainings.

Table 6-5 Training Plan Used in GT Industrial (Myanmar) Co., Ltd.

No.	Health and Safety Guidelines	Training needs
1.	Management	General fire and emergency response plan, evacuation. All training materials and procedures covering health and safety for workers and employees
2.	Machine safety and noise management	Training for machine operations to all operators Use of PPE and proper use of any necessary protection Maintenance and Emergency procedures
3.	Environment safety	Understanding and training on recognition and maintenance not to affect environment
4.	Material storage and safety	Safety use of related devices and machines Use of necessary protections in working areas Sanitation work
5.	Fire Safety	Firefighting and evacuating training and practices Firefighting materials/ devices use
6.	First Aid	first aid / CPR/ AED training from providers (Outsource) training on hazard of pathogens

6.4.10. Emergency Contact Numbers of Bago Township

GT Industrial (Myanmar) Co., Ltd is located at Bue Lei Inn Village Tract, Bago Township. The Emergency contact number of Bago township is presented in the following Table 6-6

Table 6-6 EMERGENCY CONTACT NUMBER

Bago General Hospital	052-21511
Bago Fire Station	052-2221502
Bago Police Station	09-681173105

6.5. GRIEVANCE REDRESS MECHANISM (GRM)

People who live near the project affected area or stakeholders can complain about the problems and impacts that they suffer; they can complain though Grievance Committee, which includes the responsible persons of GT Industrial (Myanmar) Co., Ltd. representative from Bago Industrial Zone and representative from General Administration Department (Bago Township). Small

issues will be solved at the Grievance Committee stage and other unsolved problems will be submitted to higher responsible authorities and finally the responsible person decided by the court in legal terms. The following diagram (Figure 6-3) show steps of Grievance Redress Mechanism of Proposed Factory Project.

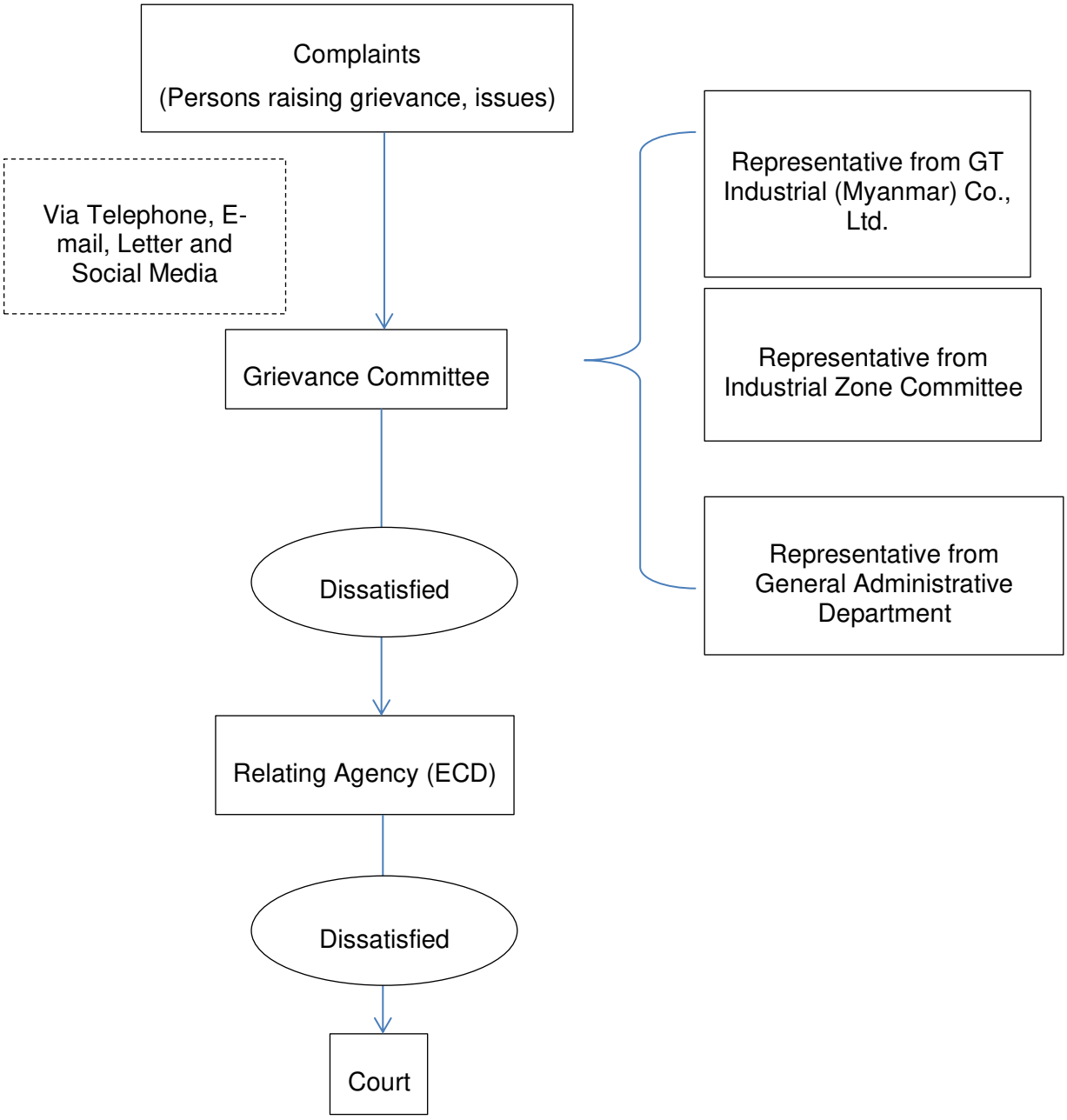


Figure 6-3 Grievance Redress Mechanism Flow Diagram

7. PUBLIC CONSULTATION

7.1. PUBLIC CONSULTATION PROCESS

This chapter presents public consultation and information disclosures during the remaining period of the Environmental Management Plan (EMP). Public consultation is the activities for gathering opinions and suggestions from related stakeholders. It will help to improve the implementation of the project, set the scope for the environmental impact assessment and development mitigation measures, which will be reported in the project's EMP report.

Public consultation conducted as part of this EMP project has three purpose:

1) Information the stakeholders about the Project, environmental and social issues related to project construction and operation, and mitigation measures to minimize environmental and social impacts;

2) Considering the views, concerns, and perceptions of stakeholders, communities and individuals that could be affected by the project or who otherwise have an interest in the project;

3) Participation and partnership where issues and needs are jointly discussed and assessed.

Although the public consultation is the effective way to achieve the information purpose, to seek views of the participation and partnership purpose, it cannot hold due to the current condition of Covid-19 diseases which started spreading in Myanmar since April, 2020.

During the preparation of this report, the second wave of Covid-19 disease becomes serious in Yangon. The Ministry of Health and Support declared to avoid gathering more than 5 people to avoid close contact and to prevent spreading of disease. Thus, the project condition, the present environmental condition and the management plan are through the social media of Myanwei Environmental Solution Company Limited Facebook page due to current situation. The suggestion, complain and comments from the public, organization and stakeholder are warmly welcome and accept via mailing, comment, telephoning and messengers.

Details of project information disclosure in the public consultation PowerPoint presentation (Appendix F) which is prepared in Myanmar language includes as follows;

- Objective of EMP
- Project Description
- Existing Environment and Monitoring
- Potential Impact and Mitigation measures
- Cooperative Social Responsibility (CSR)

7.2. CORPORATE SOCIAL RESPONSIBILITY (CSR) PLAN

The CSR activities have the objective to uplift quality of life and gain favorable relations from all communities in the operation area. The CSR program for GT Industrial (Myanmar) Co., Ltd. consists of three main sectors; Health, Education and Communities Development Sector. CSR activities are conducted in compliance with MIC's guideline for implementation of CSR program.

GT Industrial (Myanmar) Co., Ltd. has a plan to implement and donate 2 percent of the profit per year for Corporate Social Responsibility (CSR) and Employee Welfare Arrangement (Table 7-1).

Table 7-1 CSR plan at GT Industrial (Myanmar) Co., Ltd.

Area	Priority item	Contribution (%)	Estimated Cost (Kyats)	Detail targets
Health	Healthcare for employees and their family	0.5 %	2,500,000	One of our main concerns is the well-being of our employees. We will contribute 0.5 % of our net profit for the healthcare which includes medical checkup for the employees and providing health education to our workers.
Education	Raising	0.5 %	1,500,000	We will contribute 0.5 % of our net profit to the

	awareness education level and human right			public school near the factory to be a part of creating the better community. We will also work together with the school to understand more about the needs and we will also ensure that our contributions will be used in the most effective and efficient way for the society.
Community Development	Donation to local community	1%	3,500,000	• Donate to local charities with a worthy cause • Actively participate in community events • Encourage staff to participate, and to form a community engagement team to actively support community events • Embedding understanding and consciousness about human rights issues among the employees • Development of sexual harassment and power harassmentll (workplace bullying & harassment) prevention efforts

8. CONCLUSION AND RECOMMENDATION

Environmental Management Plan (EMP) has been prepared for GT Industrial (Myanmar) Co., Ltd. which is located Holding No. (56/2), Kwin No. (1173-Bue Lei Inn Kwin), Bue Lei Inn Village Tract, Bago Township, Bago Region. The main objective of the study is focused specially on the required environmental management measures or creating environmentally friendly workplace. An EMP has been carried out for the factory according to the requirement of the proponent as it has been made for manufacturing of garment factory.

GT Industrial (Myanmar) Co., Ltd. are using ground water for both industrial and household (drinking and sanitation) purpose, which is supplied by deep tube well. The factory also has generators for electricity generation. The fuel used in the industry is Diesel and Purchased electricity. The sanitary liquid waste of the factory is stored in septic tank. There is no chemical used in the factory because the project is the simple process of manufacturing of garment factory.

The major pollution caused by the factory's operation are water pollution by discharging liquid waste generated from domestic use, air pollution by generator's effluent gas emission, noise pollution created during the operation of generator and other machines.

Solid waste such as sludge, broken machine parts is hand over to local waste buyer or YCDC. Although the factory causes some pollution but also has a positive side and that is the factory has created employment for many people, due to this factory local community has built up daily.

Thus, the factory management can take proper mitigation steps against adverse environmental impacts by following this EMP. The necessary measure to mitigate impact regarding different environmental parameter such as air, water, waste, noise has been proposed in this EMP.

However, all necessary implementation measures to mitigate adverse environmental, health and safety impacts have already been taken to meet National Environmental Quality (Emission) Guideline (2015). On the other hand, the factory has a positive impact in terms of environmental management in the operation phase. Further, this will indirectly help in boosting up the national economic condition through foreign investment. An outline of EMP has been given in the present report to mitigate/enhance the impacts, which occurs during operation phase of the factory.

It is recommended that;

- All appropriate environmental management measures detailed in this report, together with any other environmental management commitments should be implemented throughout the entire life of the factory
- Solid wastes and liquid wastes need to be disposed according to Yangon City Development Committee (YCDC) rules and regulations
- Workers should be provided proper training and it should be ensured that workers use PPE during factory operation area.
- Daily, monthly and annual action plans shall be formulated based on this EMP and practiced at operation level.
- Keep full records of environmental management activities

- Abide environmental policies, laws, rules and instructions of the Republic of the Union of Myanmar.

Finally, the proponent should follow the comments and suggestions made by ECD after reviewing this EMP report. Once concerned authorities approve EMP, effective implementation of EMP by the project proponent is essential. The Project Proponent shall submit monitoring report to the Ministry every six (6) months, as provided in a schedule in the EMP. The proponent should abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

9. REFERENCE

[1] General Administrative Department (Bago Township), Bago Township Data (2017).

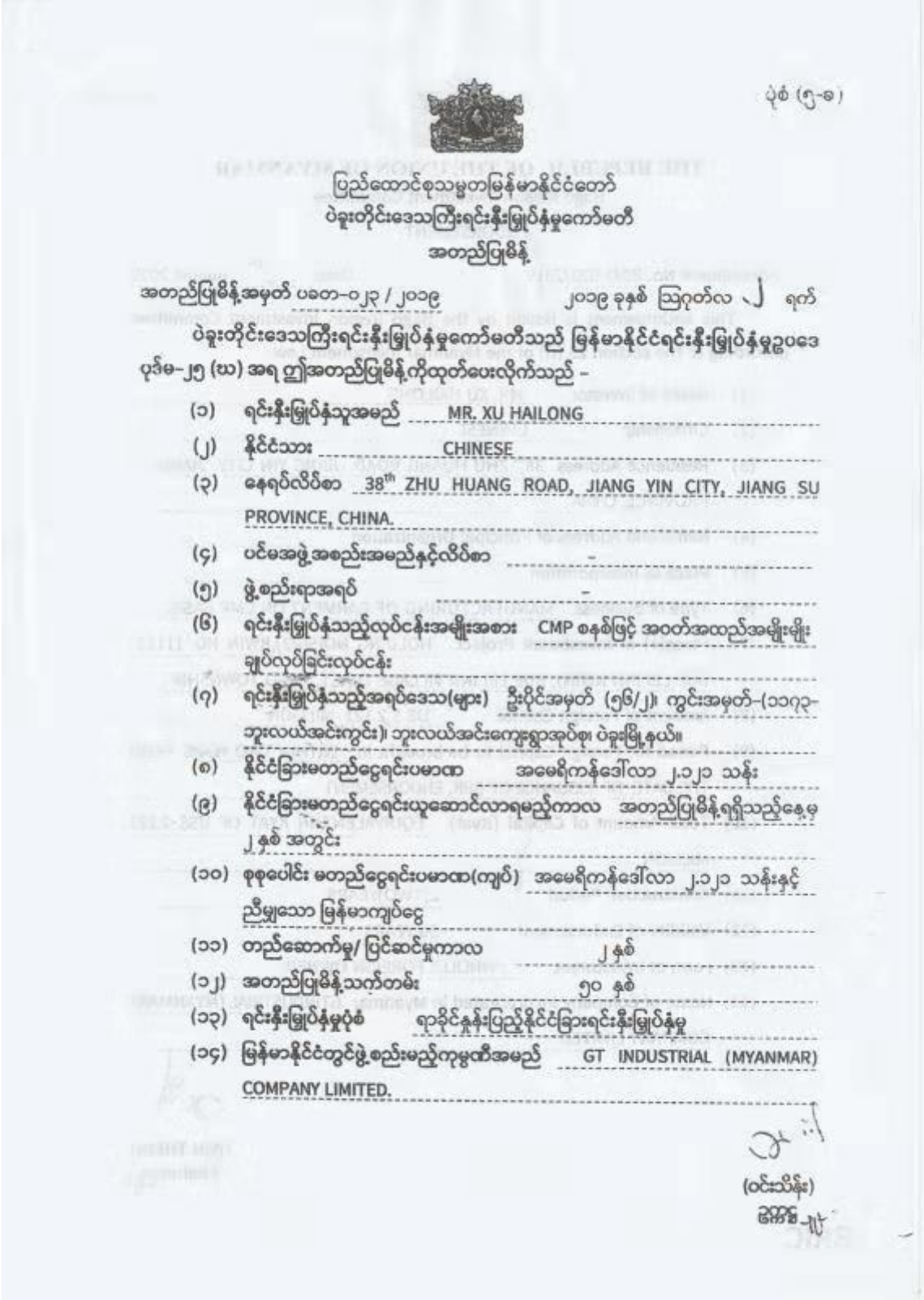
[2] Ministry of Natural Resources and Environmental Conversation (MONREC), “Environmental Impact Assessment Procedure” December 2015.

[3] Ministry of Natural Resources and Environmental Conversation (MONREC), “National Environmental Quality (Emission) Guidelines” December 2015.

[4] Specifications for accident prevention signs and tags, regulations (standards 29-CFR), Occupational Safety and Health Administration.

[5] https;//weatherspark.com/y/112503/Average-Weather-in-Yangon-Myanmar-(Burma)-Year-Round.

Appendix A
GT Industrial (Myanmar) Co., Ltd.



ပုံစံ (၅-ခ)

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(၁) ရင်းနှီးမြှုပ်နှံသူအမည် MR. XU HAILONG

(၂) နိုင်ငံသား CHINESE

(၃) နေရပ်လိပ်စာ 38th ZHU HUANG ROAD, JIANG YIN CITY, JIANG SU PROVINCE, CHINA.

(၄) ပင်မအဖွဲ့အစည်းအမည်နှင့်လိပ်စာ -

(၅) ဖွဲ့စည်းရာအရပ် -

(၆) ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစား CMP စနစ်ဖြင့် အဝတ်အထည်အမျိုးမျိုး ချုပ်လုပ်ခြင်းလုပ်ငန်း

(၇) ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ) ဦးပိုင်အမှတ် (၅၆/၂)၊ ကွင်းအမှတ်-(၁၁၇၃-ဘူးလယ်အင်းကွင်း)၊ ဘူးလယ်အင်းကျေးရွာအုပ်စု၊ ပဲခူးမြို့နယ်။

(၈) နိုင်ငံခြားမတည်ငွေရင်းပမာဏ အမေရိကန်ဒေါ်လာ ၂.၁၂ သန်း

(၉) နိုင်ငံခြားမတည်ငွေရင်းယူဆောင်လာရမည့်ကာလ အတည်ပြုမိန့်ရရှိသည့်နေ့မှ ၂ နှစ် အတွင်း

(၁၀) စုစုပေါင်း မတည်ငွေရင်းပမာဏ(ကျပ်) အမေရိကန်ဒေါ်လာ ၂.၁၂ သန်းနှင့် ညီမျှသော မြန်မာကျပ်ငွေ

(၁၁) တည်ဆောက်မှု/ ပြင်ဆင်မှုကာလ ၂ နှစ်

(၁၂) အတည်ပြုမိန့်သက်တမ်း ၅၀ နှစ်

(၁၃) ရင်းနှီးမြှုပ်နှံမှုပုံစံ ရာခိုင်နှုန်းပြည့်နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု

(၁၄) မြန်မာနိုင်ငံတွင်ဖွဲ့စည်းမည့်ကုမ္ပဏီအမည် GT INDUSTRIAL (MYANMAR) COMPANY LIMITED.

(ဝင်းသိန်း)

Form (5-B)

THE REPUBLIC OF THE UNION OF MYANMAR

Bago Region Investment Committee

ENDORSEMENT

Endorsement No. BGO-023/2019 Date 2nd August 2019

This endorsement is issued by the Bago Region Investment Committee according to the section 25 (d) of the Myanmar Investment Law-

(1) Name of Investor MR. XU HAILONG

(2) Citizenship CHINESE

(3) Residence Address 38th ZHU HUANG ROAD, JIANG YIN CITY, JIANG SU PROVINCE, CHINA.

(4) Name and Address of Principal Organization -

(5) Place of Incorporation -

(6) Type of business MANUFACTURING OF GARMENT ON CMP BASIS

(7) Place(s) of investment Project HOLDING NO(56/2),KWIN NO. (1173-BUE LEI INN KWIN), BUE LEI INN VILLAGE TRACT, BAGO TOWNSHIP.

(8) Amount of Foreign Capital US $ 2.121 MILLION

(9) Period for Foreign Capital to be brought in WITHIN TWO YEARS FROM THE DATE OF ISSUANCE OF BRIC ENDORSEMENT

(10) Total Amount of Capital (Kyat) EQUIVALENT IN KYAT OF US$ 2.121 MILLION

(11) Construction Period 2(TWO)YEARS

(12) Validity of Endorsement 50 YEARS

(13) Form of Investment WHOLLY FOREIGN OWNED

(14) Name of Company Incorporated in Myanmar GTINDUSTRIAL (MYANMAR) COMPANY LIMITED

(WIN THEIN)
Chairman

BRIC

Confidential

THE REPUBLIC OF THE UNION OF MYANMAR

BAGO REGION INVESTMENT COMMITTEE

Bago Region Government Office Compound, Taungoo Street, Yone Gyee Quarter, Bago

Tel: 052-2201747 Our ref : 22/ 49/ 10 (660/2019)

Fax: 052-2201748 Date : 2nd August 2019

Subject: Decision of the Bago Region Investment Committee on the Endorsement for manufacturing of garments on CMP basis under the name of GT Industrial (Myanmar) Company Limited

Reference: GT Industrial (Myanmar) Company Limited's letter dated 10th July 2019

1. The Bago Region Investment Committee, at its meeting (6/ 2019) held on 31st July 2019, approved the Endorsement for investment in manufacturing of garments on CMP basis under the name of GT Industrial (Myanmar) Company Limited submitted by Mr. Xu Hailong (35 %), Ms. Du Lili (30 %) and Ms. Zhao Jinying (35 %) from People's Republic of China as a wholly foreign own investment in accordance with the Myanmar Investment Law and Rules.

2. The terms and conditions of the Endorsement are stated in the following paragraphs:

(a) The term of an Endorsed project shall be initial fifty (50) years and extendable two times for five years commencing from the date of the issuance of the Endorsement by the Bago Region Investment Committee.

(b) The term of the Lease Agreement for land shall be fifty (50) years and extendable two times for five years commencing from the date of signing of the Lease Agreement between Daw Htain Shan (Lessor) and GT Industrial (Myanmar) Company Limited(Lessee).

(c) The annual rent for the land shall be USD 11,000 (United States Dollor eleven thousands only) for the total area of the land measuring 10117.15 square meters (2.5 acres).

(d) GT Industrial (Myanmar) Company Limited, which has obtained this endorsement to receive benefits relating to the right to use

Confidential

exemptions and reliefs under sections 75, 77 and 78 of the Chapter XVIII of Myanmar Investment Law, may submit the application form.

(e) GT Industrial (Myanmar) Company Limited shall use its best efforts to achieve a timely realization of the work states in the endorsement application.

(f) GT Industrial (Myanmar) Company Limited shall obey and respect the responsible of investors under section 65 of Myanmar Investment Law and Chapter XX of Myanmar Investment Rules.

(g) GT Industrial (Myanmar) Company Limited shall carry out prevention, mitigation and monitoring of significant environmental impacts according to the type of investment activities in accordance with the relevant laws, rules, regulations and procedures.

(h) GT Industrial (Myanmar) Company Limited shall submit to the Commission of any transfer of shares or transfer of the business to any person during the investment period in accordance with section 72 of Myanmar Investment Law and rule 191 of Myanmar Investment Rules.

(i) GT Industrial (Myanmar) Company Limited which has benefitted from the Endorsement or exemption and reliefs shall submit an annual report in the prescribed form to the Commission within three (3) months of the end of the financial year in accordance with rule 196 of Myanmar Investment Rules and shall publish a summary of the report on its website or the Commission's website.

(j) GT Industrial (Myanmar) Company Limited must, during the operation period under the endorsement of the Commission, submit its operating report quarterly in the prescribed form in accordance with rule 197 of Myanmar Investment Rules.

3. GT Industrial (Myanmar) Company Limited shall carry out in accordance with the stipulations of the relevant Union Ministries, governmental department and governmental organizations to obtain license, permit or registration as per section 65(d) of the Myanmar Investment Law.

Confidential

- 3 -

4. GT Industrial (Myanmar) Company Limited shall submit five (5) copies of all approvals, licences, permits and similar authorizations relevant to the initial implementation of the investment and the Lease Agreement for Land and Building to the Committee.

(Win Thein)

Chairman

GT Industrial (Myanmar) Company Limited

cc:
1. Ministry of Home Affairs
2. Ministry of Government of the Republic of the Union of Myanmar
3. Ministry of Natural Resources and Environmental Conservation
4. Ministry of Labour, Immigration and Population
5. Ministry of Industry
6. Ministry of Commerce
7. Ministry of Planning and Finance
8. Ministry of Investment and Foreign Economic Relation
9. Myanmar Investment Commission
10. Chairman, CMP Enterprises Supervision Committee
11. Office of the Bago Region Government
12. Director General, Department of Environmental Conservation
13. Director General, Directorate of Labour
14. Director General, Department of Immigration
15. Director General, Directorate of Industrial Supervision and Inspection
16. Director General, Department of Trade
17. Director General, Directorate of Investment and Company Administration
18. Director General, National Archives Department

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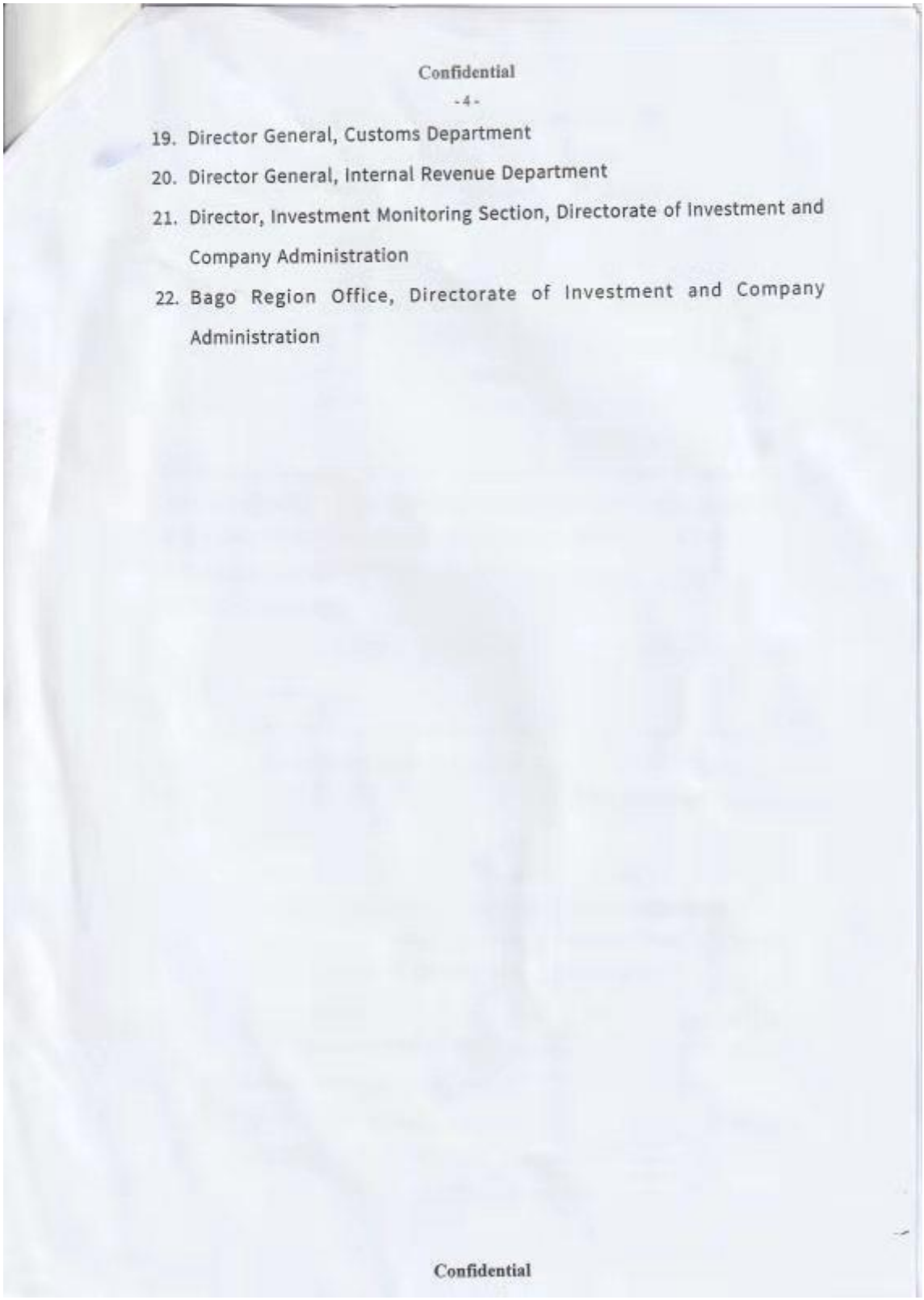


Confidential

-4-

19. Director General, Customs Department
20. Director General, Internal Revenue Department
21. Director, Investment Monitoring Section, Directorate of Investment and Company Administration
22. Bago Region Office, Directorate of Investment and Company Administration

Confidential

Appendix B
Transitional Consultant Registration Certificate

THE REPUBLIC OF THE UNION OF MYANMAR

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION

(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 00068 Date 24 MAY 2019

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the organization under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၆၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို ထုတ်ပေးလိုက်သည်။)

(a)	Name of Organization (အဖွဲ့အစည်းအမည်)	Myanwei Consulting Co., Ltd.
(b)	Name of the representative in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏အမည်)	U Nyan Lynn Aung
(c)	Citizenship of the representative in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏နိုင်ငံသား)	Myanmar
(d)	Identity Card /Passport Number of the representative person in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏ မှတ်ပုံတင်/ နိုင်ငံကူးလက်မှတ် အမှတ်)	12/Sakhana(N)056196
(e)	Address of organization (ဆက်သွယ်ရန်လိပ်စာ)	No. 28, Myay nu street, Sanchaung Township, Yangon, Myanmar. Mobile phone: 09440251888 E mail: ceo@myanweiconsulting.com
(f)	Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Organization
(g)	Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 December 2019

Director General

Environmental Conservation Department

Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted

(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Facilitation of meeting,
2. Land use,
3. Legal analysis,
4. Geology and soil,
5. Occupational Safety and Health,
6. Public Health

REPUBLIC OF THE UNION OF MYANMAR

Ministry of Natural Resources and Environmental Conservation

CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION

(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 10048 Date 07 JUL 2017

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the person under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၅၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို လူပုဂ္ဂိုလ်အားထုတ်ပေးလိုက်သည်။)

(a)	Name of Consultant (အကြံပေးပုဂ္ဂိုလ်အမည်)	U Lin Htet Sein
(b)	Citizenship (နိုင်ငံသား)	Myanmar
(c)	Identity Card / Passport Number (မှတ်ပုံတင်/နိုင်ငံကူးလက်မှတ် အမှတ်)	7/ Tha Ka Na (N) 101377
(d)	Address (ဆက်သွယ်ရန်လိပ်စာ)	No.54, Room No.704, Waizayantar Tower, Waizayantar Road, Thingangyun Township, Yangon. lin.tbs@gmail.com , 09 421137569
(e)	Organization (အဖွဲ့အစည်း)	Total Business Solution Co., Ltd.
(f)	Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Person
(g)	Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 March 2018

Director General

Environmental Conservation Department

Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Geology and Soil

EXTENSION
သက်တမ်းတိုးပြင်ခြင်း
The VALIDITY of this certificate is extended for nine months from (1.4.2019) to (31.12.2019)
ဤလက်မှတ်အား (၁-၄-၂၀၁၉) ရက်နေ့မှ (၃၁.၁၂.၂၀၁၉) ရက်နေ့အထိ (၉)လသက်တမ်း တိုးပြင်သည်။
10.6.2017
For Director General
(Soe Naing, Director)
Environmental Conservation Department

Appendix C
Monitoring Results

Light Result

MYANWEI ENVIRONMENTAL SOLUTIONS

Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting .com

Project Name:	GT INDUSTRIAL (MYANMAR) COMPANY LIMITED
Project Location:	Holding No. (56/2), Kwin No. (1173-Bue Lei Inn Kwin), Bue Lei Inn Village Tract, Bago Township, Bago Region.
Sampling Date:	18 December, 2020
Sampling Time:	11:00 am to 5:00 pm
Sampling Condition:	
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
Uni-T (Luminometer)	UT380 Series	100 times/second	17°13'29.03"N 96°26'51.16"E.

No	Measure area	Unit	Result	Standard	Remark
1	Warehouse Area	Lux	950	1000	Normal
2	Sewing Area	Lux	1210	1300-2000	Normal
3	QC Area	Lux	1400	1300-2000	Normal
4	Packing Area	Lux	1050	600	Above

IESNA Lighting Handbook

Department	Type of Light	Wattage of Light	Lux Level
Fabric store	Fluorescent tube light	40 W	300
Sewing floor	LED tube light	20 W (T8)	400
Cutting floor	LED tube light	22 W (T8)	1000
Finishing	LED tube light	28 W (T8)	600
Inspection points	LED tube light	28 W (T8)	900 (except 1500 at audit tables)
Sampling	LED tube light	22 W (T8)	500
Office areas	Fluorescent tube light	36 W (T)	300

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED.

Noise Result and Graph

MYANWEI
ENVIRONMENTAL SOLUTIONS
Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting .com

Project Overview

A. GENERAL

Project Name:	GT INDUSTRIAL (MYANMAR) COMPANY LIMITED
Project Location:	Holding No. (56/2), Kwin No. (1173-Bue Lei Inn Kwin), Bue Lei Inn Village Tract, Bago Township, Bago Region..
Sampling Date:	18 December, 2020
Sampling Time:	10:00 am To 5:00 pm
Sampling Condition:	
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

B. EQUIPMENT

Instrument	Type	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30 -130 dB	17°13'29.03"N 96°26'51.16"E.

C. RAW DATA

No	Place	Unit	Result	Standard	Remark
1	Operation Area	dBA	67.23 dBA	70 dBA	Normal

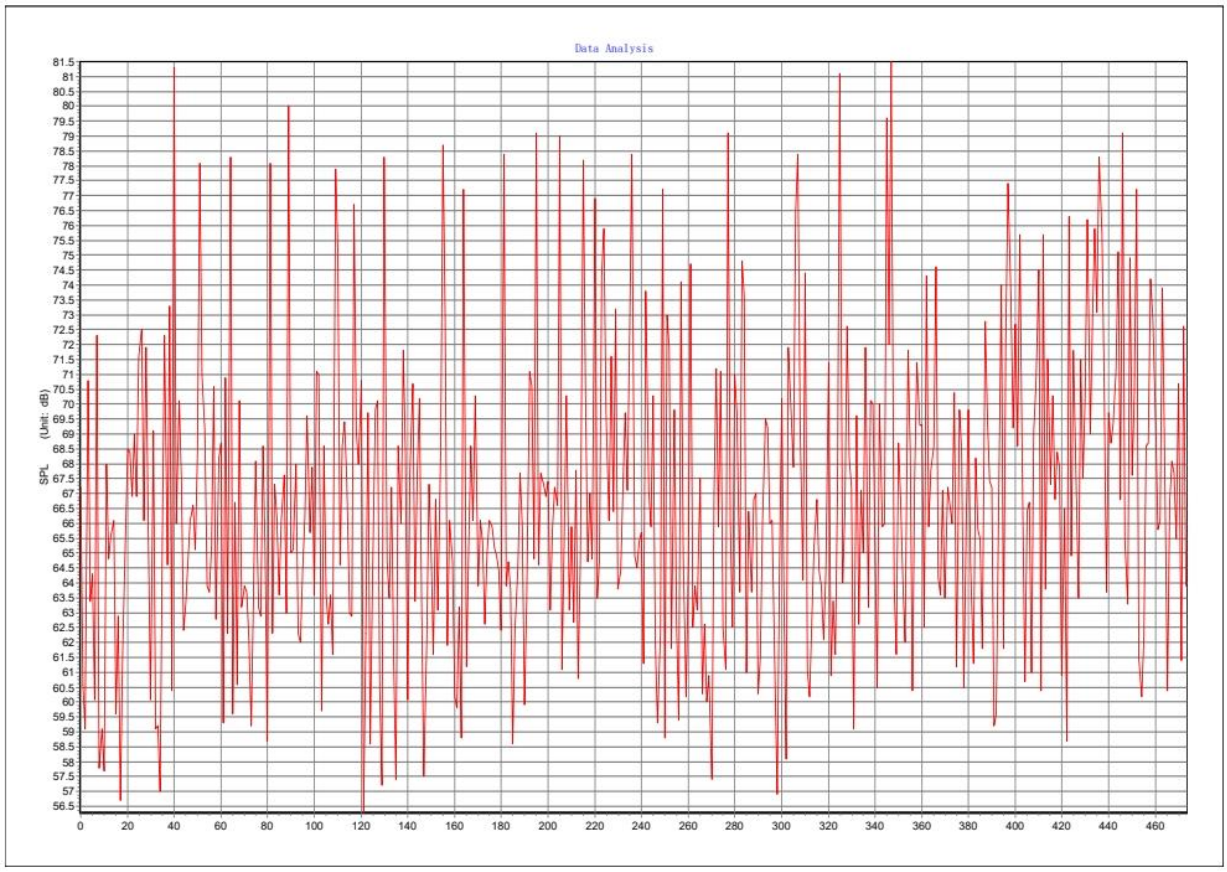
D. PERSONNEL

	Name	Position	Signature
Photo Recorded by	Saw Yan Naung	Junior Environmental consultant	
Recorded by	Htoo Nanda Aung	Junior Environmental consultant	
Check by	Myat Ko	Junior Environmental consultant	
Check by	Si Yan Hein	Junior Environmental consultant	

APPROVED AND CHECK BY;

Mr.Lin Htet Sein — **Environmental Consultant**

Mr.Hein Lynn Aung — **Managing Director**


Data Analysis
SPL (Unit: dB)
81.5
81
80.5
80
79.5
79
78.5
78
77.5
77
76.5
76
75.5
75
74.5
74
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58.5
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57.5
57
56.5
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460

Air Result

MYANWEI
ENVIRONMENTAL SOLUTIONS
Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting .com

Project Name:	GT INDUSTRIAL (MYANMAR) COMPANY LIMITED
Project Location:	Holding No. (56/2), Kwin No. (1173-Bue Lei Inn Kwin), Bue Lei Inn Village Tract, Bago Township, Bago Region.
Sampling Date:	18 December, 2020
Sampling Time:	10:00 am to 5:00 pm
Sampling Condition:	
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
OCEANUS-(AQM-09)	PM, O_3, NO_2, SO_2, CO Detector	0-999.9 ($\mu g/M^3$)	Operation Area (Outdoor)

Monitoring Result and National Environmental Quality (Emission) Guideline

Parameters	Observed value	Guideline value	Unit	Organization	Averaging period
PM2.5	27.71	10 25	µg/m3	NEQG	1 Year 24 hrs
PM10	22.5	20 50	µg/m3	NEQG	1 Year 24 hrs
SO2	81.2	20 500	µg/m3	NEQG	24 hrs 10 min
NO2	35.13	40 200	µg/m3	NEQG	1 Year 1 hour
O3	85.4	100	ppm	NAAQS	8 hrs Daily Maximum
CO	31.5	35	ppm	ACGIH	24 hrs

a. Values from air quality guidelines-global update 2005: particulate matter, ozone, nitrogen dioxide and sulfur dioxide.
b. Values from air quality guidelines for Europe, 2nd edition.

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Appendix D

Boiler Certificate

ပုံစံ(၃)

ဘွိုင်လာယာယီအသုံးပြုခွင့်လက်မှတ်

{ လုပ်ထုံးလုပ်နည်း အပိုဒ် ၆ အပိုဒ်ခွဲ (ဆ) }

စာအမှတ်၊ ၅၁ / ၂၀၁၉-၂၀၂၀ / ၈၆၈ /၁၁-၂၉

Mr. Xu Hailong

G.T Industrial Myanmar Co., Ltd

အမှတ် (၅၆/၁)၊ ဘုရားလမ်း အဖိုးကျေးရွာ၊ ပဲခူးမြို့နယ်

အား

Zibo Pucheng Boiler Co., Ltd ကုမ္ပဏီ၊ တရုတ် နိုင်ငံမှ ထုတ်လုပ်သည့် ဘွိုင်လာအမှတ် PCT-1000-007 ပါသော သို့မဟုတ် ဘွိုင်လာမှတ်ပုံတင်အမှတ် မ.[illegible] ဖြစ်သော [illegible] ဘွိုင်လာကို ခွင့်ပြုဖိအား 5 kg/cm² ဖြင့် လက်မှတ်ထုတ်ပေးသည့်နေ့မှ (၆)လ အသုံးပြုခွင့်ရှိသည်။ ယင်းကာလအပိုင်းအခြားကျော်လွန်သည့်အခါ ထုတ်ပေးထားသည့် ဤယာယီအသုံးပြုခွင့်လက်မှတ် ပျက်ပြယ်စေရမည်။

4.9.2020

(စော်မေဇင်းထိုး)

ဘွိုင်လာစစ်ဆေးရေးမှူး

ဌာနခွဲမှူး

(ဘွိုင်လာစစ်ဆေးရေး)

ပဲခူးတိုင်းဒေသကြီး

ရက်စွဲ။ ၄.၉.၂၀၂၀

မှတ်ချက် ။ ။ ဘွိုင်လာဥပဒေပုဒ်မ ၁၅ ပါပြဋ္ဌာန်းထားသည့် သက်ဆိုင်ရာအစိုးရဌာန အဖွဲ့အစည်းက လိုအပ်၍တောင်းဆိုသည့်အခါ ဤလက်မှတ်ကို တင်ပြရမည်။

Appendix E

Fire Safety Certificate

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်

ပြည်ထဲရေးဝန်ကြီးဌာန

မီးသတ်ဦးစီးဌာန

မီးဘေးလုံခြုံရေးစစ်ဆေးထောက်ခံချက်

အမှတ်စဉ်(၂၊ ၆၀၄)

၁။ ပဲခူး-တိုင်းဒေသကြီး/ပြည်နယ်၊ ပဲခူး-မြို့နယ်၊ ဘူးလယ်အင်းကွင်း ၊ ဘူးလယ်အင်းကျေးရွာအုပ်စု ရပ်ကွက်/ကျေးရွာ၊ ပဲခူး-ရန်ကုန်ကား လမ်း၊ အမှတ် ဦးပိုင်အမှတ်(၅၆၊၂) ၊ အကွက်အမှတ်(၁၁၇၃) ပိုင်ရှင်ဦး/အော် GT INDUSTRIAL (MYANMAR) CO.,LTD ၏ Two Storeyed Steel Structure Building Factory+Office (၁)လုံး၊ Three Storeyed Steel Structure Building Office+Dormitory (၁)လုံး အဆောက် အဦအတွက် ဤဌာန၏မီးဘေးလုံခြုံရေးဆိုင်ရာ ပြဋ္ဌာန်းချက်များအား (၂-၄-၂၀၂၀) ရက်နေ့တွင် စစ်ဆေး သည့်အခါ ပြည့်စုံစွာဆောင်ရွက်ထားကြောင်း စစ်ဆေးတွေ့ရှိရသည်။

၂။ ဤထောက်ခံချက်သည် စစ်ဆေးသည့်နေ့မှစ၍ (၃)နှစ်အထိသာ အကျုံးဝင်သည်။

၃။ ထို့ပြင် မီးသတ်ဦးစီးဌာနမှ အခါအားလျော်စွာ ထပ်မံစစ်ဆေးခွင့်ရှိတွင် မီးဘေးလုံခြုံရေးဆိုင်ရာ ပြဋ္ဌာန်းချက်များကို လိုက်နာဆောင်ရွက်ခြင်းမရှိပါက ဤထောက်ခံချက်ကို ပြန်လည်ရုတ်သိမ်းသွားမည်ဖြစ်ပြီး အဆောက်အဦအားအသုံးပြုသူ(သို့မဟုတ်)ပိုင်ရှင်သည် မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ဥပဒေအရအရေးယူခြင်းခံရမည်။

မှတ်ချက်။ ဤထောက်ခံချက်အား လွှဲပြောင်းသုံးစွဲခြင်းမပြုရ။ အဆောက်အဦအား မူလရည်ရွယ်ချက်မှ ပြောင်းလဲအသုံးပြုပါက ထောက်ခံချက်အသစ် ထပ်မံလျှောက်ထားရမည်။

ညွှန်ကြားရေးမှူးချုပ်(ကိုယ်စား)

(သိန်းထွန်းဦး၊ ညွှန်ကြားရေးမှူး)

Appendix F

Water Result & CSR Photos

ISO TECH LABORATORY

ISO-TECH LABORATORY

ISO 9001:2015 Cert. No. 68860

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd) Consultant (Y.C.D.C), LWSE 001
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

WTL-RE-00
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Issue No - 1.0/Page 1 of

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WATER QUALITY TEST RESULTS FORM

Client	GT Industrial (Myanmar) Co.,Ltd.
Nature of Water	RO Water
Location	Bago
Date and Time of collection	28.3.2020
Date and Time of arrival at Laboratory	30.3.2020
Date and Time of commencing examination	31.3.2020
Date and Time of completing	2.4.2020

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
pH	7.9		6.5 - 8.5
Colour (True)		TCU	15 TCU
Turbidity		NTU	5 NTU
Conductivity		micro S/cm	
Total Hardness	2	mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness	1	mg/l as $CaCO_3$	
Magnesium Hardness	1	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	0.03	mg/l	0.3 mg/l
Chloride (as CL)		mg/l	250 mg/l
Sodium chloride (as NaCL)	3	mg/l	
Sulphate (as SO_4)		mg/l	500 mg/l
Total Solids		mg/l	1500 mg/l
Total Suspended Solids	Nil	mg/l	
Total Dissolved Solids	6	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
Signature:
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr. Chemist
ISO TECH Laboratory

Approved by
Signature:
Name: Soe Thit
B.E (Civil) 1980
Technical Officer
ISO TECH Laboratory

(a division of WEG Co.,Ltd.)

Appendix G
List of Commitment

Willow Oriental (Myanmar) Textile Company Limited ၏ CMP စနစ်ဖြင့် အိပ်ယာခင်းအသုံးအဆောင်များ ချုပ်လုပ်သည့်လုပ်ငန်းလည်ပတ်ဆောင်ရွက်ခြင်းကြောင့် ဖြစ်ပေါ်လာနိုင်သော သဘာဝပတ်ဝန်းကျင်၊ လူမှုဘဝ နှင့် ကျန်းမာရေး ထိခိုက်မှုများရှိခဲ့ပါက လျော့ချရေး၊ စီမံခန့်ခွဲရေး နှင့် တားဆီးရေး အစီအစဉ် များကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan – EMP) တွင် ပါဝင်ရမည့် အချက်များကို အကောင်အထည်ဖော် စီမံဆောင်ရွက်သွားမည် ဖြစ်ကြောင်း။ အောက်ဖော်ပြပါ ဇယားဖြင့် အကျဉ်းချုပ် စာရင်းပြုစု ဖော်ပြထားပါသည်။

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
မူဝါဒ၊ ဥပဒေနှင့် အဖွဲ့အစည်းဆိုင်ရာမူဘောင်များ	၁.၁	ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂) ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး နည်းဥပဒေ (၂၀၁၄) ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း (၂၀၁၅) မြန်မာနိုင်ငံမှ ချမှတ်ထားသော စက်ရုံနှင့် သက်ဆိုင်သည့် တခြား လိုက်နာဆောင်ရွက်ရမည့် လုပ်ထုံးလုပ်နည်း၊ ဥပဒေ၊ နည်းဥပဒေ နှင့် မူဝါဒများ အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသက်မှတ်ချက်များနှင့် ပတ်ဝန်ကျင် စီမံခန့်ခွဲမှုဆိုင်ရာ	အခန်း (၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		လမ်းညွှန်ချက်များ	
ပတ်ဝန်းကျင် အရည်အသွေးတိုင်းတာမှု	၂	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသက်မှတ်ချက်များနှင့် ပတ်ဝန်ကျင် စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များကို အခြေခံလေ့လာ တိုင်းတာထားပါသည်	အခန်း (၄)
လေအရည်အသွေး	၂.၁	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)၏ ထုတ်လွှတ်အခိုးအငွေ့ (Air emissions) လမ်းညွှန်သက်မှတ်ချက် (PM10, PM2.5, O3, NO2, SO2 နှင့် CO) တို့ဖြင့် နိုင်းယှဉ် ဖော်ပြထားပါသည်	အခန်းခွဲ (၄.၂.၃)
ဆူညံသံ	၂.၂	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)၏ အမြင့်ဆုံးလက်ခံနိုင်သည့် ဆူညံသံအဆင့် (Noise level) လမ်းညွှန်သက်မှတိချက် စက်မှုဇုန် ဧရိယာတွင် (70 One hour LAeq (dBA)) ဖြင့် နိုင်းယှဉ် ဖော်ပြထားပါသည်	အခန်းခွဲ (၄.၂.၄)
စက်ရုံတွင်း အလင်းရောင် ရရှိမှု	၂.၃	Illumination and Limiting Glare Index based on IES Code,	အခန်းခွဲ (၄.၂.၅)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		1968 ဖြင့် နိုင်းယှဉ် ဖော်ပြထားပါသည်	
ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု	၃	ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်သည် စက်ရုံစီမံခန့်ခွဲမှု၊ အလုပ်သမားများ၊ ဒေသခံလူထုများ၏ အမြင်၊ အစုရှယ်ယာရှင်များနှင့် ကွင်းဆင်းလေ့လာသူများမှ ဆွေးနွေးတိုင်ပင်မှုတို့အပေါ် အလားအလာရှိသော ညစ်ညမ်းမှုထိန်းသိမ်းရေး စွန့်ပစ်ပစ္စည်းလျှော့ချရေးနှင့် စွန့်ပစ်ပစ္စည်းများကို ပြန်လည်အသုံးပြုရေး အစီအစဉ်များ စက်မှုလုပ်ငန်းဆိုင်ရာ တိကျသော ထိန်းချုပ်မှု အစီအမံများဖြစ်သည်။	အခန်း (၆)
လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်များ	၃.၁	➢ စက်ရုံတွင် ကာဗွန် နှင့် လေထုညစ်ညမ်းမှု လျှော့ချရန် သစ်ပင်ပန်းပင်များ စိုက်ပျိုးထားရှိခြင်း၊ ➢ စက်ရုံအတွင်း မည်သည့် စွန့်ပစ်အမှိုက်များကို မီးရှို့ဖျက်စီးခြင်းအား မပြုလုပ်စေခြင်း၊ ➢ အမှုန်များသောနေရာများတွင် လုပ်ငန်းလုပ်ဆောင်ရမည့် လုပ်သားများကို မျက်နှာအုပ် (Mask) များတပ်ဆင်စေခြင်း။	အခန်း၃ (၆.၂.၁)
ဆူညံသံ	၃.၃	➢ မီးစက်အသုံးပြုမှုအတွက် အသံလုံခန်းများဆောက်လုပ်ထားရှိခြင်း၊	အခန်း၃ (၆.၂.၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		➢ လုပ်ငန်းသုံးပြုသည့်ယာဉ်များကို သတ်မှတ်အရှိန်ထက် ကျော်လွန်၍ မမောင်းနှင်စေခြင်း ➢ လုပ်ငန်းခွင်အတွင်း လုပ်သားများအတွက် တစ်ကိုယ်ရေသုံး ကာကွယ်ရေးပစ္စည်း (PPE) များလုံလောက်စွာ ထားရှိပေးခြင်း ➢ လုပ်သားများကို PPE အသုံးပြုမှုနှင့် ပက်သက်၍ သင်တန်းများပို့ချပေးခြင်းနှင့် ဆူညံသံများသော နေရာတွင် အလုပ်လုပ်စဉ်တွင် PPE များကိုသေချာစွာ အသုံးပြုစေခြင်း	
အမှိုက်စွန့်ပစ်မှု	၃.၄	➢ စက်ရုံအတွင်း မည်သည့်စွန့်ပစ်ပစ္စည်းများကို မြေစိ၊ ချောင်း၊ အင်းအိုင် အတွင်းသို့ မစွန့်ပစ်ရ၊ ➢ စွန့်ပစ်ပစ္စည်းများအား ပြန်လည်အသုံးပြုရန်နှင့် အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းအဖြစ် ခွဲခြားစွန့်ပစ်စေခြင်း၊ ➢ အစိုင်အခဲစွန့်ပစ်ပစ္စည်းများ (အဂတ်အစဖြတ်စ၊ ညှပ်စ) အား ပြည်တွင်းဝယ်ယူသူများထံ ပြန်လည်ရောင်းချစေခြင်း၊ ➢ အိမ်သုံးစွန့်ပစ်အမှိုက်နှင့် လုပ်သားစွန့်ပစ် အမှိုက်များကို ပဲခူးမြို့နယ်စည်ပင်သာယာရေး နှင့် နေ့စဉ် စွန့်ပစ်ခြင်း ➢ အမှိုက်စွန့်ပစ်ခြင်းနှင့် ပတ်သက်၍ သင်တန်းပို့ချပေးခြင်း	အခန်း၆ (၆.၂.၃)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
စွန့်ပစ်အရည်	၃.၆	➢ စက်ရုံ၏ မိလ္လာစနစ်နှင့် ရေစီးကြောင်းများ နှင့် အနီးပန်းကျင်ရှိ ရေမြောင်းစနစ်များကို ရေလုံစေခြင်းနှင့် လုံလောက်သော အရွယ်အစား ထားရှိစေခြင်း ➢ မိလ္လာလိုအပ်ချက်များကို ပုံမှန်စစ်ဆေးပေးခြင်းနှင့် ပြုပြင်ထိန်းသိမ်းခြင်း	အခန်းခွဲ (၆.၂.၄)
စွမ်းအင်	၃.၇	➢ အပူအအေးထိန်းညှိပေးသည့် ကရိယာများတပ်ဆင်စေခြင်း ➢ စွမ်းအင်လျော့ချသည့် မီးလုံး၊ မီးချောင်းများတပ်ဆင်စေခြင်း ➢ စွမ်းအင်လျော့ချသည့်ကရိယာများ တပ်ဆင်ခြင်း ➢ အသုံးမပြုသည့်အချိန်တွင် စက်ပစ္စည်းများအား ပိတ်ထားခြင်း	အခန်းခွဲ (၆.၂.၅)
ရေအသုံးပြုမှု	၃.၈	➢ ရေအသုံးပြုမှုကို သိရှိနိုင်ရန် water meter အသုံးပြုခြင်း ➢ ရေအသုံးပြုမှုကို ထိန်းသိမ်းမှုများ ပြုလုပ်နိုင်စေရန် ဝန်ထမ်းများကို သင်ကြားပေးခြင်း ➢ မော်တော်ယာဉ်စက်ဆီနှင့်ချောဆီများကြောင့် ရေညစ်ညမ်းမှုမဖြစ်စေရန် ထိန်းသိမ်းဆောင်ရွက်ခြင်း	အခန်းခွဲ (၆.၂.၆)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		➢ စက်ရုံပတ်ပန်းကျင်တွင်သစ်ပင်ပန်းမံများစိုက်ပျိုးထားရှိခြင်း ➢	
အရေးပေါ်တုန့်ပြန်ရေး	၃.၉	➢ မီးသတ်ကိရိယာများနှင့့် မီးသတ်နည်းစနစ်များကို လုပ်ငန်းဆောင်ရွက်သည့်နေရာတိုင်းတွင် ထားရှိပေးခြင်းနှင့့် သိရှိစေခြင်း ➢ မီးဘေးကာကွယ်ရေး လမ်းကြောင်းမြေပုံ အသေးစိတ်ကို ပြုလုပ်ထားရှိရန်နှင့် လုပ်သားများကို အသိပေးထားခြင်း ➢ လုပ်သားများကို ငလျင်လှုပ် လျှင် လုပ်ဆောင်ရမည့့် အချက်များကို အသိပေးထားခြင်း ➢ စက်ရုံ၏ ဆေးဘက်ဆိုင်ရာ အဖွဲ့အစည်းမှ ရှေးဦးသူနာပြုစုနည်းများ အတွက် ပြင်ဆင်ထားရှိခြင်း ➢ မီးသတ်တပ်ဖွဲ့ ၊ ကယ်ဆယ်ရေးအဖွဲ့များ ဖြင့် လုံခြုံရေးကော်မတီ ဖွဲ့စည်းခြင်း၊ ကော်မတီမှ လုံခြုံရေး စီမံခန့်ခွဲရေး နှင့် ပတ်သက်သည်များ ဆွေးနွေးရန် လစဉ် အစည်းအဝေးများ ပြုလုပ်စေခြင်း	အခန်းခွဲ (၆.၂.၇)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
စောင့်ကြပ်ကြည့်ရှုမှု	၄	အဆိုပြုစီမံကိန်းသည် ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာအား ၆လ တစ်ကြိမ် ဝန်ကြီးဌာနများသို့ တင်ပြရမည်	အခန်း၃ (၆.၃)
လေအရည်အသွေး စစ်ဆေးမှု	၄.၁	ဆာလ်ဖာဒိုင်အောက်ဆိုဒ်၊ နိုက်ဒရိုဂျင်ဒိုင်အောက်ဆိုဒ်၊ ကာဗွန်မိုနောက်ဆိုဒ်၊ ကာဗွန်ဒိုင်အောက်ဆိုဒ်၊ အမှုန်အမွှားအရွယ်အစား (၂.၅ နှင့် ၁၀) လုပ်ငန်းစတင်ပြီး ၃နှစ်အကြာမှာ တစ်နှစ် ၂ ကြိမ် အဆိုပြုလုပ်ငန်းအတွင်းနှင့် အပြင်	ဇယား (၆.၂)
စွန့်ပစ်ပစ္စည်းထွက်ရှိမှုအခြေအနေ	၄.၂	စွန့်ပစ်ပစ္စည်းအစိုင်အခဲ၊ စွန့်ပစ်ရည်နှင့် အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်း အပတ်စဉ် စက်ရုံအတွင်း ပြန်လည်အသုံးပြုရန်ထားရှိသည့်နေရာနှင့် အမှိုက်ကန်များ	ဇယား (၆.၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
မီးဘေးအန္တရယ် စစ်ဆေးမှု	၄.၃	မီးငြိမ်းသတ်ရေးကရိယာများ လစဉ် စက်ရုံအတွင်း	ဇယား (၆.၂)
စက်ရုံတွင်း အလင်းရောင်အခြေအနေ	၄.၄	အလင်းရောင် လစဉ် ကုန်ပစ္စည်းဖြတ်တောက်ခြင်း၊အရည်အသွေးစစ်ဆေးခြင်းကဲ့သို့သော လုပ်ငန်များလုပ်ကိုင်သည့် နေရာ	ဇယား (၆.၂)
ဘေးအန္တရာယ်ဆိုင်ရာ သင်တန်းပို့ချခြင်း	၅	လုပ်ငန်းခွင်၌ ကြုံတင်ခန့်မှန်းနိုင်သော အရေးပေါ်အခြေအနေများကို အရေးပေါ်တုန့်ပြန်နိုင်ရန် အစီအစဉ်များ ချမှတ်ဆောင်ရွက်ခြင်း	အပိုဒ်ခွဲ (၆.၄)
လူထုအကျိုးတူပူးပေါင်းပါဝင်မှု	၆	အဆိုပြုလုပ်ငန်းသည် လူထုအကျိုးပြုပူပေါင်းပါဝင်မှုကို ကျန်းမာရေး၊ ပညာရေးနှင့် နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေးအတွက် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်က ချမှတ်သည့် အတိုင်း ကုမ္ပဏီ၏	အပိုဒ်ခွဲ (၇.၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		အကျိုးအမြတ် ၂ ရာခိုင်နှုန်းအား နှစ်စဉ် ထည့်ဝင်သွားမည်ဖြစ်သည်။	
မကြေနပ်မှုများနှင့် ပြဿနာများ ဖြေရှင်းခြင်း	၇	စီမံကိန်းအနီးပတ်ဝန်းကျင်နေထိုင်သောသူများ (သို့) သက်ဆိုင်သူများသည် သူတို့ခံစားနေရသော ပြဿနာများနှင့် သက်ရောက်မှုများနှင့် ပတ်သတ်၍ စက်မှုဇုန်၊ အဆိုပြုလုပ်ငန်း၏ တာဝန်ရှိသူများ၊ မြို့နယ်မှ အုပ်ချုပ်ရေးဦးစီးဌာန တို့အား တိုင်ကြားနိုင်သည်။ ကော်မတီအဆင့်တွင် အခြားမဖြေရှင်းနိုင် သော ပြဿနာများကို တာဝန်ရှိအာဏာပိုင်များသို့ တင်ပြပြီး တရားရေးအရ အဆုံးအဖြတ်ပြုလုပ်မည် ဖြစ်သည်။	အခန်း၌ (၆.၅)
နိဂုံးနှင့်သုံးသပ်ချက်		အကျဉ်းချုပ်အားဖြင့် ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဂန်းကျင်ဆိုင်ရာဥပဒေ၊နည်းဥပဒေ၊စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဂါဒလမ်းညွှန်ချက်များအတိုင်း ပတ်ဂန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာဆောင်ရွက်ရန်ကျင့်သုံးတာဂန်များကို ပတ်ဂန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်တွင် ရှင်းလင်းတင်ပြထားပါသည်။	အခန်း (၈)