MYANMAR GF COMPANY LIMITED

ENVIRONMENTAL MANAGEMENT PLAN





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Date: 17, 1, 2022

Attention: Dear Director

Environmental Conservation Department

Subject: Environmental Management Plan (EMP) Report in respect of the Garments Inspection and Packaging of Finished Goods by Myanmar GF Company Limited.

EMP report describes the environmental condition of a project, including significant impact, formulation of mitigation measures and preparation of institutional requirements and environmental monitoring.

Myanwei Environmental Solutions Company Limited has prepared this report 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 into 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.

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



Date: 17, 1, 2022

Dear: Director

Environmental Conservation Department

Nay Pyi Taw

Subject: Environmental Management Plan (EMP) Report in respect of the Garments Inspection

and Packaging of Finished Goods

We refer to the captioned EMP report, which has been prepared by Myanwei Environmental Solutions Co., Ltd. (Third Party Consultant) in compliance with EIA procedure (2015) and other related laws/rules.

We believe, to the best of our knowledge at the time of writing, that;

- The EMP report is accurate and complete
- The EMP report has been prepared in strict compliance with all applicable laws, rules, regulations and procedures in force.

Myanmar GF Company Limited. will at all times comply fully with all commitment and obligations in the EMP report.

We acknowledge and understand that

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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

= 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

Myanmar GF Company Limited အပတ်အထည် အရည်အသွေး ဆန်းစစ်ခြင်းနှင့် ထုတ်ပိုးခြင်းလုပ်ငန်းသည် မြေကွက်အမှတ် ၉၅၊ မြေတိုင်းရပ်ကွက်အမှတ်-၄၂ စက်မှုဒေသ၊ ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် တည်ရှိသည်။ အဆိုပြုစီမံကိန်းသည် နိုင်ငံခြားသားဖက်ဆပ်ရင်းနှီးမြုပ်နှံမှုဖြစ်ပြီး အပတ်အထည်အရည်အသွေးဆန်းစစ်ခြင်းနှင့် ထုတ်ပိုးခြင်း လုပ်ငန်းဖြစ်ပါသည်။အဆိုပြုလုပ်ငန်းသည် ချုပ်လုပ်ပြီး အထည်များကိုသာ အရည်အသွေး စစ်ဆေးခြင်းနှင့် ထုပ်ပိုးခြင်းအပြင် အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်း ပါပင်ခြင်းမရှိကြောင်းကိုလည်းစိစစ်တွေ့ ရှိပါသည်။ နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှုပမာဏမှာ အမေရိကန် ဒေါ်လာ ().၁၅သန်း ဖြစ်ပါသည်။စုပေါင်းမတည်ရင်းနှီးငွေပမာဏမှာ အမေရိကန် ဒေါ်လာ ().၃() သန်း နှင့်ညီမှုသောမြန်မာကျပ်ငွေ (အမေရိကန် ဒေါ်လာ ().၁၅သန်း အပါအပင်) ဖြစ်ပါသည်။

အဆိုပြုထားသော စီမံကိန်း	အပတ်အထည် အရည်အသွေး ဆန်းစစ်ခြင်းနှင့် ထုတ်ပိုးခြင်းလုပ်ငန်း
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	သုံးထပ်စက်ရုံအဆောက်အဦး ၁ လုံး
တည်ဆောက်မှုကာလ	၆လ
အဆိုပြုရင်းနှီးမြှုပ်နှံမှုကာလ	၁၀ နှစ်
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ဆက်သွယ်ရန် ဖုန်းနံပါတ်	ဒေါ်သီတာနွယ် (HR Manager)
	၀၉-၄၂၁၀၄၆၅၀၀

ရင်းနှီးမြုပ်နှံမှုလိုင်စင်ကို ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီမှ ခွင့်ပြုမိန့်အမှတ် ပြင်ဆင်ချက် (၆၈၂/၂၀၁၄) ၂၀၁၄ ခုနှစ်၊ မတ်လ ၇ ရက်နေ့တွင်ရရှိထားပြီး သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာန (MONREC)၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန ECD ၏ ထုတ်ပြန်ထားသော ပတ်ပန်းကျင်ထိနိက်မှု ဆန်းစစ်ခြင်းလုပ်ထုံးလုပ်နည်း (EIA Procedure) ၂၀၁၅ အတိုင်း Myanmar GF Company Limited သည် စီမံကိန်း နှင့် စီမံကိန်းပတ်ဝန်းကျင်ဆိုင်ရာ ကာကွယ်မှုများကို ဆောင်ရွက်ရပါမည်။ ထို့အပြင် သယံဇာတနှင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဝန်ကြီးဌာန လက်အောက်ရှိ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ လမ်းညွှန်ချက်အရ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အားဆောင်ရွက်ရမည် ဖြစ်ပါသည်။ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ ပေါ် လစီများ၊ ဥပဒေများ၊ နည်းဥပဒေများ နှင့် လုပ်ထုံးလုပ်နည်းများ အရ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အားဆောင်ရွက်ခြင်း၊ ပြင်ဆင်ခြင်း၊ တင်ပြခြင်းများလုပ်ဆောင်ရပါသည်။

ဤကဣာတွင် မြန်မာနိုင်ငံဥပဒေ၊ နည်းဥပဒေနှင့် အဖွဲ့ အစည်းဆိုင်ရာ မူဘောင်၊ နိုင်ငံတကာစံချိန်၊ စံညွှန်းများ၊ အဆိုပြုစီမံကိန်းနှင့်သက်ဆိုင်သော ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားကဏ္ဍများကို ဖော်ပြပါမည်။ အဆိုပြုစီမံကိန်းကို ဖော်ဆောင်ရာတွင် ချမှတ်ထားသော ဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများ၊ နိုင်ငံတကာစံချိန်စံညွှန်းများနှင့်အညီ လုပ်ဆောင်သွား မည် ဖြစ်ပါသည်။

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့် သစ်တောရေးရာဝန်ကြီးဌာနသည် သယံဇာတနှင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဝန်ကြီးဌာနအဖြစ်သို့ ၂၀၁၆ဧပြီတွင် ပြောင်းလဲပြင်ဆင်၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုကိစ္စရပ်များကို ဆောင်ရွက်လျက် ရှိပါသည်။ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန (Environmental Conservation Department) သည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂) အရ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ငန်းစဉ်များကို စီစဉ်ဆောင်ရွက်ပါသည်။

အောက်ဖော်ပြပါ ပတ်ဝန်းကျင်ထိခိုက်မှုကာကွယ်ခြင်းနှင့်သက်ဆိုင်သော အမျိူးသားမူဝါဒ၊ ဥပဒေ၊ နည်းဥပဒေများသည် အဆိုပြုစီမံကိန်းနှင့်ဆက်စပ်လျက်ရှိသော ဥပဒေများနှင့် စံချိန်စံညွှန်းများကို အဆိုပြု စီမံကိန်းမှ လိုက်နာဆောင်ရွက် သွားမည်ဖြစ်သည်။ အဆိုပြုစီမံကိန်း၏ ထိခိုက်မှုဆန်းစစ်ခြင်းကိုလည်း ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနည်းဥပဒေများနှင့် သက်ဆိုင်ရာချမှတ်ထားသော စည်းမျဉ်းစည်းကမ်းများ၊ နိုင်ငံတကာစံချိန်၊ စံညွှန်းများနှင့် အညီ ရေးသားပြုစုသွားပါမည်။

၁။ ဖွဲ့စည်းပုံအခြေခံ ဥပဒေ ၂ဂဂ၈

၂။ ပတ်ဂန်းကျင်ထိန်းသိမ်းရေးဥပဒေ၊၂၀၁၂

၃။ ပတ်ဂန်းကျင်ထိန်းသိမ်းရေးနည်းဥပဒေ၊၂ဂ၁၄

၄။ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်းများ၊၂၊၁၁၅

၅။ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ၊၂၀၁၅

၆။ မြန်မာနိုင်ငံအမျိုးသားပတ်ဂန်းကျင်ဆိုင်ရာမှုဂါဒ၊၂ဂ၁၉

၇။ မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နံမှုဥပဒေ၊၂၀၁၆

၈။ မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုနည်းဥပဒေ၊၂၀၁၇

၉။ ပို့ကုန်သွင်းကုန်ဥပဒေ၊၂၀၁၂

၁ဂ။ မြန်မာ့အာမခံလုပ်ငန်းဥပဒေ၊၁၉၉၃

၁၁။ ကုန်သွယ်လုပ်ငန်းခွင်ဥပဒေကိုပြင်ဆင်သည့်ဥပဒေ၊၂၀၁၄

၁၂။ ၁၉၅၁ခုနှစ်အလုပ်ရုံများအက်ဥပဒေကိုပြင်ဆင်သည့်ဥပဒေ

၁၃။ ပုဂ္ဂလိကစက်မှုလုပ်ငန်းဥပဒေ ၁၉၉၀

၁၄။ ဓာတုပစ္စည်းနှင့်ဆက်စပ်ပစ္စည်းများအွန္တရာယ်မှတားဆီးကာကွယ်ရေးဥပဒေ၊၂ဂ၁၃

၁၅။ ရေနံနင့်ရေနံထွက်ပစ္စည်းဆိုင်ရာဥပဒေ၊၂၀၁၇

၁၆။ လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတတ်သောဂတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ၊၂၀၁၈

၁ဂု။ စံချိန်စံညွှန်းသတ်မှတ်ခြင်းဆိုင်ရာဥပဒေ၊၂ဂ၁၄

၁၈။ အလုပ်သမားအဖွဲ့အစည်းဥပဒေ၊၂၀၁၁

၁၉။ လူမှုဖူလုံရေးဥပဒေ၊၂လ၁၂

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၂၀။ တိုင်းရင်းသားလူမျိုးများ၏ အခွင့်အရေး ကာကွယ်စောင့်ရှောက်သည့် ဥပဒေ၊ ၂၀၁၅
၂၁။ အလုပ်သမားရေးရာအငြင်းပွားမှုဖြေရှင်းရေးဥပဒေ၊နည်းဥပဒေ၊၂ဂ၁၂
၂၂။ အလုပ်အကိုင်နှင့်ကျွမ်းကျင်မှုဖွံ့ဖြိုးတိုးတက်ရေးဥပဒေ၊၂ဂ၁၃
၂၃။ အလုပ်သမားလျော်ကြေးအက်ဥပဒေ၊၁၉၂၃
၂၄။ အခကြေးငွေပေးချေရေးဥပဒေ၊၂ဂ၁၆
၂၅။ အနည်းဆုံးအခကြေးငွေပေးချေရေးဥပဒေ၊၂၀၁၃
၂၆။ ခွင့်နှင့်အားလပ်ရက်ဆိုင်ရာဥပဒေ၊၂၀၁၈
၂၇။ ပြည်သူ့ကျန်းမာရေးဥပဒေ၊၁၉၇၂
၂၈။ ကူးစက်ရောဂါများကာကွယ်နှိမ်နင်းရေးဥပဒေ၊၂၀၁၁
၂၉။ လုပ်ငန်းခွင်ဘေးအွန္တရာယ်ကင်းရှင်းရေးနှင့်ကျန်းမာရေးဆိုင်ရာဥပဒေ၊၂၀၁၉
၃ဂ။ သဘာဂဘေးအန္တရာယ်ဆိုင်ရာစီမံခန့်ခွဲမှုဥပဒေ၊၂ဂ၁၃
၃၁။ ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးနှင့် ပတ်သတ်သော အချက်အလက်များ၊ ၂၀၁၄
၃၂။ ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးဥပဒေ၊၂၀၁၈
၃၃။ အင်ဂျင်နီယာကောင်စီဥပဒေ၊၂၀၁၃
၃၄။ မြန်မာနိုင်ငံမီးဥပဒေ၊၂၀၁၅
၃၅။ မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ ဥပဒေ၊၂၀၁၅
၃၆။ ယဉ်ကျေးအမွေအနှစ်များ ကာကွယ်ထိန်းသိမ်းရေးဥပဒေ၊ ၁၉၉၈
၃ဂု။ ရှေးဟောင်းအဆောက်အအုံများကာကွယ်ထိန်းသိမ်းရေးဥပဒေ၊၂ဂ၁၅
၃၈။ ရေအရင်းအမြစ်နှင့်မြစ်ချောင်းများထိန်းသိမ်းရေးဥပဒေ၊၂၀၁၆
၃၉။ မြေအောက်ရေအက်ဥပဒေ၊၁၉၃၀
၄ဂ။ လျပ်စစ်ဥပဒေ၊၂၀၁၄
၄၁။ မော်တော်ယာဉ်ဥပဒေ၊၂၀၁၅
၄၂။ သစ်တောဥပဒေ၊၁၉၉၂
၄၃။ အမျိုးသားမြေအသုံးချမှုမှုဝါဒ၊၂ဂ၁၄
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၄၄။ တောရိုင်းတိရွစွာန်နှင့် သဘာဂအပင်များ ကာကွယ်ရေးနှင့် သဘာဂနယ်မြေများ ထိန်းသိမ်းရေးဥပဒေ၊ ၁၉၉၄ အဆိုပါစီမံကိန်းသည် မြန်မာနိုင်ငံစည်းမျဉ်းဥပဒေများဖြစ်သော ပတ်ဂန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ၊ နည်းဥပဒေများ နှင့် ၄င်းတို့နှင့် ဆက်စပ်လျက်ရှိသော ဥပဒေသများအပြင် နိုင်ငံတကာစံချိန်စံညွှန်းများဖြစ်သော ကမ္ဘာ့ကျန်းမာရေးအဖွဲ့ မှ ချမှတ်ထားသော လမ်းညွှန်ချက်များ၊ အပြည်ပြည်ဆိုင်ရာ ဘဏ္ဍာရေးကော်ပိုရေးရှင်းမှ ချမှတ်ထားသော ပတ်ဂန်းကျင်နှင့် ကျန်းမာရေးနှင့် ဘေးကင်းရေး လမ်းညွှန်ချက်များကိုလဲ လိုက်နာဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

လက်ရှိပတ်ဝန်းကျင်အနေအထားကို အကဲဖြတ်ရန် အောက်တိုဘာလ ၃၁ ရက်၊ ၂၀၁၉ ခုနှစ် တွင် စက်ရုံသို့ ကွင်းဆင်း ဆောင်ရွက်ခဲ့ပါသည်။ စီမံကိန်းဆိုင်ရာ အခြေခံစစ်တမ်းများ ကောက်ယူမှုကို စီမံကိန်း လည်ပတ်စဉ်အတွင်းတွင် ဆောင်ရွက်ခဲ့ပါသည်။ စစ်တမ်းကောက်ယူသည့် အဖွဲ့တွင် အကြံပေးပုဂ္ဂိုလ်များ၊

ပတ်ဝန်းကျင်အရည်အသွေးဆန်းစစ်သူများ ပါဝင်ပါသည်။ အခြေခံ ပတ်ဝန်းကျင်ဆိုင်ရာ စစ်တမ်းများကောက်ယူမှုကို အောက်ပါအတိုင်းခွဲခြား၍ ကောက်ယူခဲ့ပါသည်။ စက်ရုံ၏ ကုန်ထုတ်လုပ်သည့်နေရာတွင် လေထုအရည်အသွေး၊ အသံဆူညံမှု၊ အလင်းရောင်ရရှိမှု အခြေအနေများကို တိုင်းတာခဲ့ပါသည်။

အမျိုးအစား	တိုင်းတာမှု
လေအရည်အသွေး	(1) Sulfur dioxide (SO ₂), (2) Nitrogen dioxide (NO ₂), (3) Ozone (O ₃),
	(4) PM ₁₀ and PM _{2.5}
ဆူညံမှု	စက်ရုံတွင်း ဆူညံသံ (LAeq)
အလင်းရောင်ရရှိမှု	အလင်းရောင်ရရှိမှု အခြေအနေ (Lux)

တိုင်းတာမှု ရလဒ်များအရ Sulfur dioxide (SO_2), Nitrogen dioxide (NO_2), Ozone (O_3), PM_{10} and $PM_{2.5}$ များသည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ၏ သတ်မှတ် စံချိန်၊ စံညွှန်းများအောက်တွင်ရှိသည်ကို တွေ့ရှိရပါသည်။ ကုန်ထုတ်လုပ်မှု ဧရိယာရှိ အသံဆူညံမှုသည်လည်း အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ၏ သတ်မှတ် စံချိန်၊ စံညွှန်းများအောက်တွင်ရှိသည်ကို တွေ့ရှိရပါသည်။ လုပ်ငန်းခွင်အတွင်းအလင်းရောင်ရရှိမှု အခြေအနေအချို့သည် သတ်မှတ် စံချိန်၊ စံညွှန်းများထက်ကျော်လွန်နေသည်ကို တွေ့ရှိခဲ့ရပါသည်။ ထိုကျော်လွန်မှုများကိုလျှော့ချရန်

မီးချောင်းများကိုပြန်လည်အစားထိုးတပ်ဆင်ခြင်းများပြုလုပ်ရန်လိုအပ်ပါသည်။

လူမှုစီးပွားအခြေအနေ၊ ရုပ်ပတ်ဝန်းကျင်နှင့် ဇီဝပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များ၊ ရာသီဥတုအခြေအနေစသည့် လှိုင်သာယာမြို့နယ်ဆိုင်ရာ အစိုးရဌာနမှ တင်ပြထားသည့် အချက်အလက်များမှ ရယူ၍ ထည့်သွင်းထားပါသည်။ အဆိုပြုစီမံကိန်းမြေသည် စက်မှုဇုန်ဧရိယာအတွင်းတွင်တည်ရှိပါသည်။ ၂၀၁၉ ခုနှစ်စစ်တမ်းများအရ လှိုင်သာယာမြို့နယ်၏ လူဦးရေထူထပ်နှုန်းမှာ ၂၈၄,၉၂၂ ဦးရေရှိပါသည်။

စီမံကိန်းလုပ်ဆောင်ချက်များကြောင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အရင်းအမြစ်များ၊ စီးပွားဆိုင်ရာ အရင်းအမြစ်များ၊ အမှိုက်စွန့်ပစ်မှု စသည့် သက်ရောက်မှုများဖြစ်ပေါ် လာနိုင်ပါသည်။ စီမံကိန်းလုပ်ဆောင်ချက်ကြောင့်သက်ရောက်မှုများ နှင့် လျော့ချရေးနည်းများ အကျဉ်းချုပ်ကို အောက်တွင်ဖော်ပြထားပါသည်။

အုပ်စုများ	သက်ရောက်မှု အရင်းအမြစ်	လျော့ချရေးနည်းလမ်းများ
လေအရ ည်အသွေး	အရေးပေါ် မီးစက်များနှင့် ယာဉ်အသွားအလာမှ ထွက်သော မီးခိုးများ။	ထိခိုက်မှုလျှော့ချရန်မလိုပါ။
ရေအရ ည်အသွေး	• ထုတ်လုပ်ရေးလုပ်ငန်းများ။	ထိခိုက်မှုလျှော့ချရန်မလိုပါ။

အုပ်စုများ	သက်ရောက်မှု အရင်းအမြစ်	လျော့ချရေးနည်းလမ်းများ
မြေအရ ည်အသွေး		ထိခိုက်မှုလျှော့ချရန်မလိုပါ။
ဆူညံသံန င့် တုန်ခါမှု	ကုန်ပစ္စည်းထုတ်လုပ်သည့်လုပ်ငန်း များမှ စက်ပစ္စည်းများမှ ဆူညံသံများထွက်ခြင်း။	ထိခိုက်မှုလျှော့ချရန်မလိုပါ။
ကုန်းနေ အပင်နှင့် သတ္တဝါ များ၊ ရေနေသ တ္တဝါများ		ထိခိုက်မှုလျှော့ချရန်မလိုပါ။
မီးဘေး အန္တရာယ်	• လျှပ်စစ်တပ်ဆင်ရာတွင် စနစ်တကျတပ်ဆင်မှု မရှိခြင်း။	 စက်ရုံ၏မီးဘေးအွန္တရာယ်ကာကွယ်ရန်အတွက် မီးသတ်ဆေးဘူး၊မီးသတ်ပိုက်၊မီးသတ်ခေါင်း များထားရှိခြင်း။ မီးသတ်ဆိုင်ရာစက်ပစ္စည်းကိရိယာများကိုပုံမှန်စစ်ဆေးခြ င်း၊အရေးပေါ် အခြေနေအတွက် မီးသတ်ရေကန်အဆင်သင့်ထားရှိခြင်း။ စက်ရုံအတွင်းအရေးပေါ် အချက်ပေးစနစ်များထားရှိခြင်း။ အရေးပေါ် ထွက်ပေါက်များတလျောက်တွင် ကုန်ပစ္စည်းများပိတ်ဆို့ခြင်းမရှိအောင်ရှင်းလင်းထားရှိခြင်း ။
ကျန်းမာ ရး	• အရေးပေါ်မီးစက်များမှ ဆူညံသံများထွက်ပေါ် လာခြင်း။	 လုပ်သားများအတွက်ကျန်းမာရေးမထိခိုက်စေရန် ရေမြောင်းများကိုစနစ်တကျထားရှိခြင်း။ COVID-19 ကြိုတင်ကာကွယ်မှအဖြစ် စက်ရုံအနှံအပြား လက်ဆေးကန်နှင့်ဆပ်ပြာများထားရှိခြင်း၊ လူတစ်ဦးနှင့်တစ်ဦး သုံးပေအကွာထားရှိခြင်း နှင့်

အုပ်စုများ	သက်ရောက်မှု အရင်းအမြစ်	လျော့ချရေးနည်းလမ်းများ
စွန့်ပစ်အစို င်အခဲများ	 ကုန်ပစ္စည်းထုတ်ပိုးခြင်းမှထွက် ရှိသော အပိုင်းအစများ။ မီးဖိုချောင်၊လူနေဆောင် ရုံးခန်းမှထွက်ရှိသောအမှိုက်များ။ 	အဓိကအားဖြင့်ပိုးမှာ လေမှကူးစက်တက်သောကြောင့် FACE-MASKများတပ်ဆင်ထားရမည်။ • လုပ်သားများအတွက်ရှစ်နာရီအတွင်းလက်ခံနိုင်သည်အြ မင့်ဆုံး ဆူညံမှု နှုန်းမှာ 90dB(A) ဖြစ်သည်။ အသံဆူညံမှုအမြင့်ဆုံးနေရာများတွင် နားကြပ်များ တပ်ဆင်စေခြင်း။ • စက်ရုံအတွင်း အမှိုက်ပုံးများထားရှိခြင်း။ • သတ်မှတ်ထားသောနေရာတွင် အမှိုက်စို၊ အမှိုက်ခြောက်များခွဲခြားစွန့်ပစ်ခြင်း။ • အမှိုက်များကို မြို့နယ်စည်ပင်သာယာရေး ကော်မတီနှင့် ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။
စွန့်ပစ်အရ ည်	 မိလ္လာစနစ်ထားရှိခြင်း။ ရုံးခန်း၊မီးဖိုချောင်နှင့် လူနေဆောင်များမှ စွန့်ပစ်အရည်များထွက်ရှိခြင်း။ 	ဆီကန်၊ မိလ္လာကန်များ ကိုပုံမှန်စစ်ဆေးခြင်း၊ သန့်စင်ခြင်းများပြုလုပ်ခြင်းဖြင့် စွန့်ပစ်အရည်များ စိမ့်ဝင်မှုများကိုလျော့ကျစေနိုင်ခြင်း။

သိသာထင်ရှားသော သက်ရောက်မှုများကိုတွက်ချက်ရာတွင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုနှင့် ဆန်းစစ်ခြင်းအဖွဲ့အစည်း (IEMA) မှ ချမှတ်ထားသော နည်းလမ်းကို အသုံးပြု၍ ဆန်းစစ်ထားပါသည်။ စီမံကိန်းလုပ်ဆောင်ချက်များပေါ် မူတည်၍ ရလဒ်များ နည်းသည်၊ အလွန်နည်းသည်ကို ဖော်ပြထားပါသည်။ အချို့ရလဒ်များမှာ အသင့်အတင့် ရှိပါသည်။ လူမှုစီးပွားဆိုင်ရာတိုးတက်မှုများအနေဖြင့် ကောင်းမွန်သောသက်ရောက်မှု ရှိသည်ကို တွေ့ရှိရပါသည်။

စီမံကိန်းဖော်ဆောင်သည့်အချိန်အတွင်း ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများ၊ လျှော့ချရေးနည်းလမ်းများ၊ အစီအစဉ်များ၊ တိုင်းတာမှုများ စသည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်များကို လုပ်ဆောင်ရပါသည်။ Myanmar GF Co., Ltd. မှ စက်ရုံတွင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် အဖွဲ့ အစည်းဖွဲ့ စည်းခြင်း၊ ပုံမှန်ဆန်းစစ်လေ့လာခြင်းများ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ ပတ်ဝန်းကျင် လေထုအရည်အသွေး၊ မိလ္လာစနစ်၊ စွန့်ပစ်အစိုင်အခဲ စွန့်ပစ်မှုများကို စက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အဖွဲ့ အစည်းမှ ဆန်းစစ်သွားမည်ဖြစ်ပါသည်။

အဆိုပြုစီမံကိန်းမှ လူထုအကျိုးပြုလုပ်ငန်းများ နှင့် အရေးပေါ် ဆောင်ရွက်ချက်များ၊ ဒေသဆိုင်ရာ အကျိုးပြုလုပ်ငန်းများကို လုပ်ဆောင်သွားမည်ဖြစ်ပါသည်။

စီမံကိန်းသည် ရွှေပြည်သာစက်မှုဇုန် ၊ ရွှေပြည်သာမြို့နယ်တွင်တည်ရှိသည်။ စီမံကိန်းကြောင့် ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများမရှိပါ။ စီမံကိန်းဆိုင်ရာ သတင်းအချက်အလက်များ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်များကို အောက်ပါ ဝပ်ဆိုက်များမှတဆင့်လေ့လာနိုင်ပါသည်။

Myanwei website www.myanweiconsulting.com

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

EXECUTIVE SUMMARY

Myanmar GF Company Limited is located in Plot No.95, Myay Taing Block No. 42, Shwe Pyi Thar Industrial Zone 1, Shwe Pyi Thar Township, Yangon Region, Myanmar. The said project is joint venture form japan. The purpose of investment is to do Quality Controlling (Garment Inspection) and Packing of Finished Product Items. The amount of foreign investment is US \$0.15 million. The estimated authorized capital investment is equivalent in Kyats of US \$ 0.30 million(including US \$ 0.15 million).

Type of Proposed Business	Quality Controlling (Garment Inspection) and Packing of Finished Product Items
Type of investment	Joint Venture
Type of Share	Ordinary Share
Type of land	Industrial Land
Total land area	1.347acres (5,451.121sq m) 3 Storey Factory Building
Land lease year	2years
Construction period	6 Months
Operation starting date	10 years investment permit
Address	Plot No. 95 ₁ Myay Taing Block No.42, Shwe Pyi Thar Industrial Zone 1, Shwe Pyi Thar Township, Yangon Region
Contact person	Thidar Nwe (HR Manager) 09421046500

Controlling (Garment Inspection) and Packing of Finished Product Items on Joint Venture Company. The Myanmar Investment Commission (MIC) issues the project on 7 March 2014 with the Amendment on Permit No. (YGN- 682/2014). The MIC 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 Quality Controlling (Garment Inspection) and Packing of Finished Product Items under the name of Myanmar GF Company Limited. 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 Therefore, Myanmar GF Company Limited commissioned Myanwei Environmental Solutions Company Limited (Myanwei) for EMP report study.

The section reviews the relevant policies, legislation, and institutional framework of Myanmar and International guidelines relevant in the context of an environmental and socio-economic aspect of the project. The activities carried out under the project are subject to these legal requirements and the proponent has to comply with the laws, rules, regulations and international guidelines hereinafter mentioned.

The Ministry of Environmental Conservation and Forestry (MOECAF) was reformed as the Ministry of Natural Resources and Environmental Conservation (MONREC) in April 2016 to be the focal point and coordinating agency for environmental management. The Environmental Conservation

Department (ECD) was established in October 2012 based on Environmental Conservation Law (2012). ECD is responsible for managing the EIA process in Myanmar. The national policies, national laws and regulations for environmental protection, applicable to the proposed project are compiled and presented below:

- 1. Constitution, 2008
- 2. The Environmental Conservation Law, 2012
- 3. The Environmental Conservation Rules, 2014
- 4. Environment Impact Assessment Procedure, 2015
- 5. National Environmental Quality (Emission) Guidelines, 2015
- 6. National Myanmar Environmental Policy, 2019
- 7. Myanmar Investment Law, 2016
- Myanmar Investment Rules, 2017
- 9. The Export and Import Law, 2012
- 10. Myanmar Insurance Law, 1993
- 11. Commercial Tax Law, 1990 (Amended 2014)
- 12. The Amended Law for Factories Act, 1951 (Amended in 2016)
- 13. The Private Industrial Enterprise Law, 1990
- 14. The Prevention of Hazard from Chemical and Related Substances Law, 2013
- 15. Petroleum and Petroleum Product Law, 2017
- 16. Industrial Use Explosive Substances Law, 2018
- 17. The Law on Standardization, 2014
- 18. Labor Organization Law, 2011
- 19. Social Security Law, 2012
- 20. The Ethnic Rights Protection Law (24th February, 2015)
- 21. Labor Dispute Settlement Law, 2012
- 22. Employment and Skill Development Law, 2013
- 23. Workmen's Compensation Act, 1923
- 24. Payment of Wages Law, 2016
- 25. The Minimum Wages Law, 2013
- 26. The Leaves and Holiday Act, 2018
- 27. The Public Health Law, 1972
- 28. Prevention and Control of Communicable Diseases Law, 2011
- 29. Occupational Safety and Health Law, 2019
- 30. Natural Disaster Management Law, 2013
- 31. Facts about YCDC (2014)
- 32. Yangon City Development Committee Law, 2018
- 33. Myanmar Engineering Council Law, 2013
- 34. Myanmar Fire Force Law, 2015
- 35. Myanmar Fire Brigade Law, 2015
- 36. Protection and Preservation of Cultural Heritage, 1998
- 37. The Protection and Preservation of Ancient Monument Law, 2015
- 38. The Conservation of Water Resources and Rivers Law, 2006
- 39. The Underground Water Act, 1930
- 40. The Electricity Law, 2014
- 41. The Motor Vehicle Law, 2015
- 42. The Forest Law, 1992
- 43. National Land Use Policy, 2014

44. The Conservation of Biodiversity and Protected Areas Law, 1994

Specifically, the Environmental Impact Assessment for this project will follow not only the national regulations such as the Environmental Conservation Law, Environmental Conservation Rules and relevant regulations of the Government of the Republic of the Union of Myanmar but also International Guidelines such as WHO standards, IFC Environmental Health and Safety Guidelines for environmental and social considerations.

To determine the existing baseline environmental quality within the project site 31 October 2019. 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. On-site measurement includes indoor air quality, noise level and operation light condition at the factory.

Item	Parameter
Air Quality	(1) Sulfur dioxide (SO ₂), (2) Nitrogen dioxide (NO ₂), (3) Ozone (O ₃), (4) PM ₁₀ and PM _{2.5}
Noise Level	Indoor sound level (LAeq)
Light Level	Industry light condition (Lux)

The contents of SO_2 , NO_2 and O_3 concentration level are within the limit of NEQ (emission) guideline and particulate matter (PM₁₀, PM_{2.5}) are also within the National Environmental Quality (Emission) Guideline. Noise in the workshop area is acceptable when compared with National Environmental Quality (Emission) Guideline. The result of light measurement at operation area (inside the production sector) is slightly higher than the acceptable level of standard.

Moreover, secondary data collection of proposed project site area such as socio-economic condition, physical/ biological environment, weather data where be received from official township data was reference by Shwe Pyi Thar Township Data. The proposed project site is initiated into the industrial zone area. In 2019, the population of Shwe Pyi Thar Township is about 284,922 people.

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	Emission from emergency diesel generator and vehicle movement	No Mitigation Measure
Water	Production process	No Mitigation Measure
Soil	Engine oil leaks, spills at diesel storage and during fuel refueling.	No Mitigation Measure
Noise and Vibration	Generating noise from the production machinery	No Mitigation Measure
Flora and fauna on terrestrial	Operation of the Controlling (Garment Inspection) and Packing factory	No Mitigation Measure

Categories	Source of Impact	Mitigation Measure
and aquatic life		
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
Health	Influx of people	be blocked with materials or machines for fire emergency cases.Provide the hand-wash basin, hand
		sanitizer and face masks and then specify the social distancing.
		 Manage the drainage systems of the factory to prevent health risk of the workers.
Solid Waste	Waste from packaging materialsWaste from kitchen, dormitory	 Provides separate garbage bins at each building.
	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 YCDC's 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.

Modified method of Institute of Environmental Management and Assessment (IEMA) from United Kingdom is applied in this report to assess the significance of the impacts. Results of analysis mention that most of the project activities are very low/low significant and some are moderate significant to be improved for environmental performance. Social and economic developments are positive impacts of the proposed project.

The Environmental Management Plan (EMP) formulated with the anticipated impacts, mitigation measures, management and monitoring plans during all phases are implemented. GT Industrial (Myanmar) Co., Ltd. has organized Environmental Management Team to accomplish these plans and to review EMP regularly for improvements and modifications. The project proponent has performed

Corporate Social Responsibility (CSR) plan and Emergency Preparedness for the benefits of residents and local community.

The project is located Shwe Pyi Thar Industrial Zone, Shwe Pyi Thar Township and there is no local people affected by project. The project information and this EMP will be accessible to public and stakeholders via

Myanwei website www.myanweiconsulting.com

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

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 Myanmar GF Company Limited. 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

Controlling (Garment Inspection) and Packing of Finished Product Items on Joint Venture Company. The Myanmar Investment Commission (MIC) issues the project on 7 March 2014 with the Amendment on Permit No. (YGN- 682/2014). The MIC 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 Quality Controlling (Garment Inspection) and Packing of Finished Product Items under the name of Myanmar GF Company Limited. 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 Therefore, Myanmar GF Company Limited commissioned Myanwei Consulting Company Limited (Myanwei) for EMP report study.

This EMP report is prepared based on the impact identified in EIA procedure (2015). The EMP is prepared provide additional guidance on the means, methods and mechanisms by which such mitigation measures will be implemented. The EMP is one of the most important outputs of the environmental assessment process. The EMP is the synthesis of all proposed mitigate and monitoring actions, set to a timeline with specific responsibility assigned and follow up actions defined. The EMP can be prepared at different times of the project life. Operation environmental management plan is developed to ensure that appropriate environmental practices are followed during a project's operation and decommissioning phases. As the factory is already built operation environmental management plan is designed for this factory.

1.1.1. Project Proponent Profile

This is the information of project proponent from the MIC's registration that is describing in below. Organization chart of Myanmar GF Company Limited is presented in Figure 1-1.

Table 1-1 Salient Features of the Project

Type of Proposed Business	Quality Controlling (Garment Inspection) and Packing of Finished Product Items
Type of investment	Joint Venture
Type of Share	Ordinary Share
Type of land	Industrial Land
Total land area	1.347acres (5,451.121sq m)

	3 Storey Factory Building
Land lease year	2years
Construction period	6 Months
Operation starting date	10 years investment permit
Address	Plot No. 95 Myay Taing Block No.42, Shwe Pyi Thar Industrial Zone 1, Shwe Pyi
	Thar Township, Yangon Region
Contact person	Thidar Nwe (Manager) 09421046500

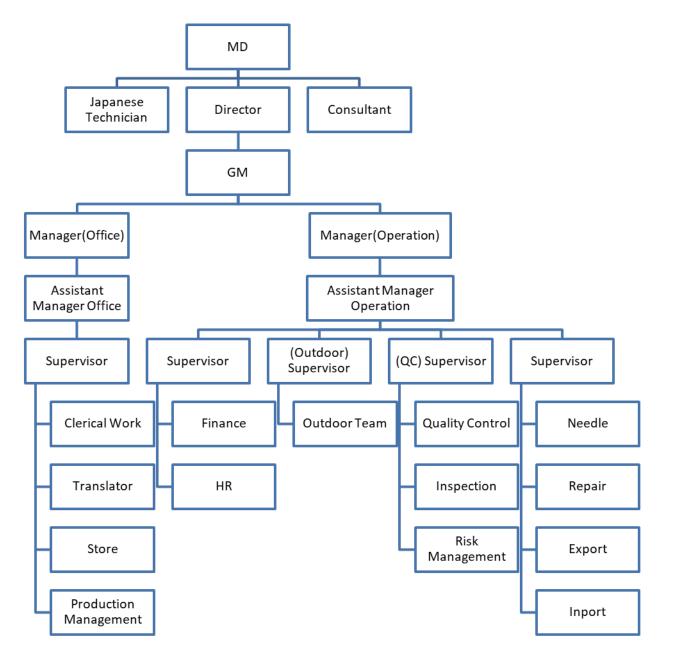


Figure 1-1 Organization Chart of Myanmar GF Company Limited

1.1.2. Environmental Consult 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.

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

Table 1-2 Member of EMP Study Team

Name	Qualification	Responsibility
Myanwei Environmental Solutions Company Limited	Transition Consultant Registration Certificate No. 0069	EIA Organisation
Dr. Win Aung	M.B, B.S (Yangon), M.P.H (Mahidol University, Thailand)	Public Health and Health Management Expert,
Dr. Hein Lynn Aung	M.B, B.S (Yangon), Business Management (International Collage of Management Sydney, Australia)	Project Director, Public health consultant, project management
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
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

Name	Qualification	Responsibility
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 Certificate of Geotechnical Engineering (Myanmar Geoscience Society)	Junior Environmental Consultant, monitoring measure, document administration
Mr. Htoo Nanda Aung	B.Sc (Forestry)	Junior Environmental Consultant, monitoring measure, document administration
Mr. Si Yan Hein	B.Sc (Geology) Certificate of Geotechnical Engineering (Myanmar Geoscience Society)	Junior Environmental Consultant, monitoring measure, document administration
Mr. Kaung Sett Lwin	B.Sc (Hons) Geology Certificate of Geotechnical Engineering (Myanmar Geoscience Society)	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.		
Enviro	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	The Ministry may, with the approval of the Union Government and the
Environmental Quality	Committee, stipulate the following environmental quality standards:
Standards: Section10	(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.		
E	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.		
Environment	al 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. a) The project proponent shall submit the Project Proposal to the Ministry Screening: Section 23 for Screening. b) The Ministry will send the Project Proposal to the Environmental Conservation Department to determine the need for environmental 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 $\underline{}$ 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		
Yango	on 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 A	mended 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	e 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 formation and implementation of so	n 2012, was amended the Social Security Act in 1954. It stipulates the scial 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)	
workplace or obtaining the rights fai	ing the right of workers or having skillful of workers and making peaceful rly, rightfully and quickly by settling the dispute of employer and worker pational 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 unagreeable 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 Contro	ol 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.	
Oc	cupational 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	The worker shall proper and systematic use any equipment and tools,	
Sub-section (d)	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 of Standardization	
Objectives	The Objectives of this Law are as follows:	
I	I	

	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		
လုပ်ငန်း <u>ခွင</u> ်သုံး	ပေါက်ကွဲစေတက်သောပတ္တုပစ္စည်းများဆိုင်ရာဥပဒေ (၂ပ၁၈)		
ရည်ရွယ်ချက်	လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဂတ္တုပစ္စည်းများကို စနစ်တကျပြုလုပ်ခြင်း၊ တင်သွင်းခြင်း၊ သယ်ယူခြင်း၊ သိုလှောင်ခြင်းနှင်း သုံးစွဲခြင်းတို့ပြုနိုင်ရန်၊		
	ယမ်းဘီလူးနှင့် ဆက်စပ်သုံးပစ္စည်းများ အသုံးပြုသည့် လုပ်ငန်းခွင်ဘေးအွန္တရာယ် ကင်းရှင်း၍ လုံခြုံမှုရှိစေရန်၊		
	လုပ်ငန်းခွင်သုံး ပေါက်ကွဲစေတက်သော ဂတ္တုပစ္စည်းများ ပြုလုပ်သုံးစွဲမှုများကို စနစ်တကျ ကြီးကြပ်နိုင်ရန်။		
အခန်း ၇ တားမြစ်ချက်များ အမှတ် ၁၈	လိုင်စင်ရရှိသူနှင့် ခွင့်ပြုချက်ရရှိသူ မည်သူမျှ စစ်ဆေးရေးအရာရှိချုပ် သို့မဟုတ် စစ်ဆေးရေးအရာရှိ၏ စစ်ဆေးခြင်းကို ခံယူရန် ငြင်းပယ်ခြင်းမပြုရ။		
အမှတ် ၁၉ (စ)	ပုဒ်မ ၈ အရ ကာကွယ်ရေးဌာနကောင်စီ အမှုဆောင်အဖွဲ့ ၏ အတည်ပြုချက်မရရှိဘဲ လုပ်ငန်းခွင် ပေါက်ကွဲစေတက်သော ပတ္တုပစ္စည်းများကို ဖျက်ဆီးခြင်းမပြုရ။		
အမှတ် ၁၉ (ဂ)	ဤဥပဒေအရ ထုတ်ပြန်သည့် နည်းဥပဒေ၊ စည်းမျဉ်း၊ စည်းကမ်း၊ အမိန့်ကြော်ငြာစာ၊ အမိန့်နှင့် ညွှန်ကြားချက်များနှင့်အညီ ဆောင်ရွက်ရန် ပျက်ကွက်ခြင်း မရှိစေရ။		
•	ခွင့်ရက်နှင့်အလုပ်ပိတ်ရက်အက်ဥပဒေ (၁၉၅၁)		
အက်ဥပဒေ အမှတ် ၅၈			
အမည်နှင့်စတင်အာကာတည်သည့်နေ့	(၁)ဤအက်ဥပဒေကို ၊ ၁၉၅၁ ခုနှစ် ၊ 		

	(၂)ဤဥပဒေသည် ပြည်ထောင်စုသမ္မတနိုင်ငံတော်တစ်ဂန်းလုံးတွင်	
	အာကာတည်စေရမည့်အပြင် အလုပ်အမျိုးအစား ၊ လုပ်ငန်းအမျိုးအစား ၊	
	အလုပ်ဌာနအမျိူးအစားအားလုံးနှင့်သက်ဆိုင်စေရမည်။	
အဓိပ္ပါယ်ဖော်ပြချက်များ	(၁) "ခွင့်ရက်" ဆိုရာတွင် လုပ်သက်ခွင့်ရက် ၊ ရောင်တခင်ခွင့်ရက် ၊	
	ဆေးလက်မှတ်ခွင့်ရက်နှင့် မီးဗွားခွင့်ရက်တို့ပါလင်သည်။	
	(၂)"လုပ်သက်ခွင့်ရက်" ဆိုသည်မှာ ၊	
	အလုပ်လုပ်ခဲ့သည့်ကာလအပိုင်းအခြားအတွက်သော်၎င်း ၊	
	တာပန်ပတ်တရားဆောင်ရွက်ခဲ့သည့် ကာလအပိုင်းအခြားကို၎င်း ၊	
	ရထိုက်ခွင့်ရှိသောခွင့်ရက်ကိုဆိုလိုသည်။	
	(၃)"အလုပ်ပိတ်ရက်" ဆိုသည်မှာရက်သတ္တပတ်	
	အလုပ်ပိတ်ရက်နှင့်အများပြည်သူအလုပ်ပိတ်ရက်တို့ ကိုဆိုလိုသည်။	
	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 Conser	vation 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 person shall:	
No. 8	(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 C	Commercial Tax Law (1990) Amended 2014	
Chapter 5	Any Person who commences operation of a goods production enterprise or service enterprise shall furnish letter of intimidation on the	

Registration and Intimation of Commencement of Enterprise 11 (b)	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.

2.2. NATIONAL ENVIRONMENTAL QUALITY (EMISSION) GUIDELINES

According to the Environmental Conservation Law, MOECAF shall set standards of environmental qualities as agreed by the Union Government and the Environmental Conservation Committee 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. In section 13 of NEQG, Air emissions, noise, odor, and liquid/effluent discharges will be sampled and measured at points of compliance as specified in the project EMP and ECC.

2.2.1. General Guidelines

2.2.1.1. Air Emission

Projects with significant sources of air emissions, and potential for significant impacts to ambient air quality, should prevent or minimize impacts by ensuring that: (i) emissions do not result in concentrations that reach or exceed national ambient quality guidelines and standards, or in their absence current World Health Organization (WHO) Air Quality Guidelines1 for the most common pollutants as summarized below; and (ii) emissions do not contribute a significant portion to the attainment of relevant ambient air quality guidelines or standards (i.e. not exceeding 25 percent of the applicable air quality standards) to allow additional, future sustainable development in the same air shed. Industry-specific guidelines summarized hereinafter shall be applied by all projects to ensure that air emissions conform to good industry practice. Reference should be made to WHO's Air Quality Guidelines for Europe2 for air pollutants not included in the following Table 2-2.

Table 2-2 WHO's air quality guideline

Parameter	Averaging Period	Guideline Value
Nitrogen Dioxide	1-year	40

Quality Controlling (Garment Inspection) and Packing of Finishing Product Items

Parameter	Averaging Period	Guideline Value
	1-hour	200
Ozone	8-hour	100
Particulate Matter PM10 ^a	1-year	10
	24-hour	50
Particulate Matter PM2.5b	1-year	10
	24-hour	25
Sulfur dioxide	24-hour	20
	10-minute	500

^aParticulate matter 10 micrometers or less in diameter

2.2.1.2. Wastewater

Industry-specific guidelines apply during the operations phase of projects and cover direct or indirect discharge of wastewater to the environment. They are also applicable to industrial discharges to sanitary (domestic) sewers that discharge to the environment without any treatment. Wastewater generated from project operations includes process wastewater, wastewater from utility operations, runoff from process and storage areas, and miscellaneous activities including wastewater from laboratories, and equipment maintenance shops. Projects with the potential to generate process wastewater, sanitary sewage, or storm water should incorporate the necessary precautions to avoid, minimize, and control adverse impacts to human health, safety or the environment. Industry-specific guidelines summarized hereinafter shall be applied by all projects, where applicable, to ensure that effluent emissions conform to good industry practice.

For project types where industry-specific guidelines are not set out in these Guidelines, the following general guideline values, or as stipulated on a case-by-case basis, apply during project operations.

Table 2-3 Wastewater, Storm Water Runoff, Effluent and Sanitary Discharges (general application)¹

Parameter	Unit	Guideline Values
5-day Biochemical oxygen demand	mg/l	50
Ammonia	mg/l	10
Arsenic	mg/l	0.1
Cadmium	mg/l	0.1
Chemical oxygen demand	mg/l	250
Chlorine (total residual)	mg/l	0.2
Chromium (hexavalent)	mg/l	0.1
Chromium (total)	mg/l	0.5
Copper	mg/l	0.5
Cyanide (free)	mg/l	0.1

¹Pollution prevention and abatement handbook. 1998. Toward cleaner production. World Bank Group in collaboration with United Nations Environment Programme and the United Nations Industrial Development Organization.

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^bParticulate matter 2.5 micrometers or less in diameter

Parameter	Unit	Guideline Values
Cyanide (total)	mg/l	1
Fluoride	mg/l	20
Heavy metals (total)	mg/l	10
Iron	mg/l	3.5
Lead	mg/l	0.1
Mercury	mg/l	0.01
Nickel	mg/l	0.5
Oil and grease	mg/l	10
рН	S.U.ª	6-9
Phenols	mg/l	0.5
Selenium	mg/l	0.1
Silver	mg/l	0.5
Sulphide	mg/l	1
Temperature increase	°C	<3 ^b
Total coliform bacteria	100 ml	400
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc a Standard Unit	mg/l	2

a Standard Unit

2.2.2. IFC EHS Guidelines

The Environmental, Health and Safety (EHS) Guidelines by IFC are technical reference documents with general and industry – specific examples of Good International Industry practice (GIIP), as defined in IFC's Performance Standard 3: Resources Efficiency and Pollution Prevention. The EHS Guidelines contain the performance levels and measures that are normally acceptable to IFC and that are generally considered achievable in new facilities at reasonable costs by existing technology.

There are two kinds of guidelines, General EHS Guidelines and Industry Sector Guidelines. The General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors in the following section: (1) Environment, (2) Occupational Health and Safety, (3) Community Health and Safety and (4) Construction and Decommissioning. Table 2-4shows the contents of the section of Community Health and Safety.

Table 2-4 Community health and safety contents

Contents	Brief Description
Water Quality and Availability	Drinking water sources should at all times be protected so that they meet or exceed applicable national acceptability standards or in their absence the current edition of WHO Guidelines for Drinking-Water Quality.

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

Contents	Brief Description
	Project activities should not compromise the availability of water for personal hygiene needs and should take account of potential future increases in demand. The overall target should be the availability of 100 liters per person per day.
Structural Safety of Project Infrastructure	Reduction of potential hazards is best accomplished during the design phase when the structural design, layout and site modifications can be adapted more easily. The following issues should be considered and incorporated as appropriate into the planning, siting, and design phases of a project (1) inclusion of buffer strips or other methods of physical separation around project sites to protect the public from major hazards associated with hazardous materials incidents or process failure (2) incorporation of siting and safety engineering criteria to prevent failures due to natural risks posed by earthquakes, tsunamis, wind, flooding, landslides and fire, and (3) application of locally regulated or internationally recognized building codes, standards and regulations, and mitigation measures.
Traffic Safety	Traffic safety should be promoted by all project personnel during displacement to and from the workplace, and during operation of project equipment on private or public roads. Prevention and control of traffic related injuries and fatalities should include the adoption of safety measures that are protective of project workers and of road users, including those who are most vulnerable to road traffic accidents.
Transport of Hazardous Materials	Projects should have procedures in place that ensure compliance with local laws and international requirements applicable to the transport of hazardous materials.
Disease Prevention	Recommended interventions against the communicable diseases at the project level include (1) providing surveillance and active screening and treatment of workers, (2) preventing illness among workers in local communities by undertaking health awareness and education initiatives, training health workers in disease treatment and conducting immunization programs for workers, and (3) providing treatment through standard case management in on-site or community health care facilities.
Emergency preparedness and Response	All projects should have an Emergency preparedness and Response Plan that is commensurate with the risks of the facility and that includes the following basic elements: (1) Administration (policy, purpose, distribution, definitions, etc.) (2) Organization of emergency areas (command centers, medical stations, etc. (3) Roles and responsibilities, (4) Communication systems, (5) Emergency response procedures, (6) Emergency resources, (7) Training and updating, (8) Checklists (role and action list and equipment checklist), and (9) Business Continuity and Contingency.

Source: IFC, Environmental, Health, and Safety (EHS) Guidelines, General EHS Guidelines: Community Health and Safety (April 30.20070)

2.3. 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.

2.4. COMMITMENT OF MYANMAR GF COMPANY LIMITED

Myanmar GF Company Limited has made the commitments and 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 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, Environmental Conservation Law and other environmental related rules and procedures.

- 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 DISCRIPTION

3.1. LOCATION OF PROPOSED PROJECT

The proposed project is located at Latitude 16°57'1.13"N and Longitude 96° 5'47.80"E, Plot No.95, Myay Taing Block No.42, Shwe Pyi Thar Industrial Zone 1, Shwe Pyi Thar Township, Yangon Region. The location map of the proposed project site is shown in Figure 3-1.

3.1.1. Project Implementation

Implementation of the proposed project includes (1) construction of factory and office buildings, and warehouses, (2) installation of machinery and equipment, and (3) operation of the said factory. The construction phase of the proposed factory initiated in October 2016 and then commercial running operation stage start in 2018. The proposed duration of the investment shall be 10 years.

3.1.2. Adjacent Condition of Project Site

Lower Mingalordon road was situated near the factory & Hlawga lake was also situated near factory compound. List and map of adjacent condition of project site is shown in Table 3-1 and Figure 3-2.

Table 3-1 Adjacent Factories of the Project Site

Nature of Factory	Location
High Class Mya Nadi Bottling Company Limited	East
Fully Happiness Garment Company Limited	Northeast

3.1.3. Site Description of Proposed Project Site

The total area of project site is 1.347 acres. Main structure is designed into office (such as HR Dept, MR Dept, Audit Dept and Meeting Room) and production area. Both these buildings are combined into one building structure. In addition, transformer, generator room, power distribution room, security room, waste storage room and canteen are separated from main factory building structure. Factory layout drawing is able to seen in Figure 3-3, Figure 3-4 and Figure 3-5.

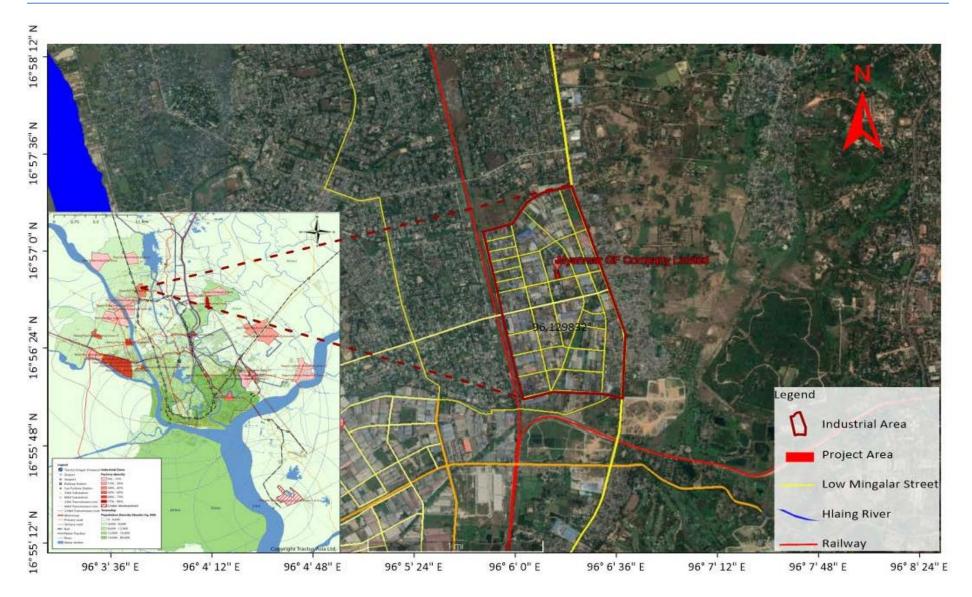


Figure 3-1 Location Map



Figure 3-2 Adjacent Location Map

Myanmar GF Layout (1st Floor)

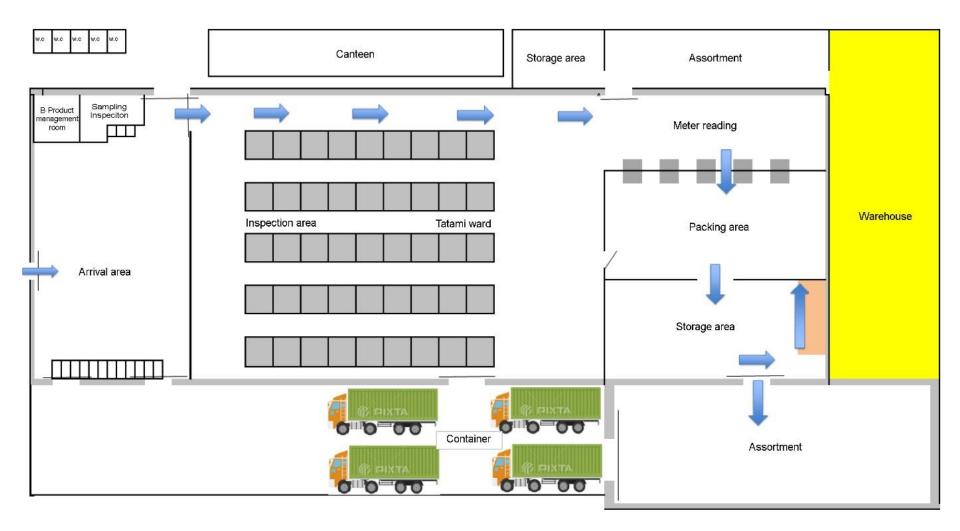


Figure 3-3 Factory Layout Drawing (1st Floor)

Myanmar GF Layout (2nd Floor)

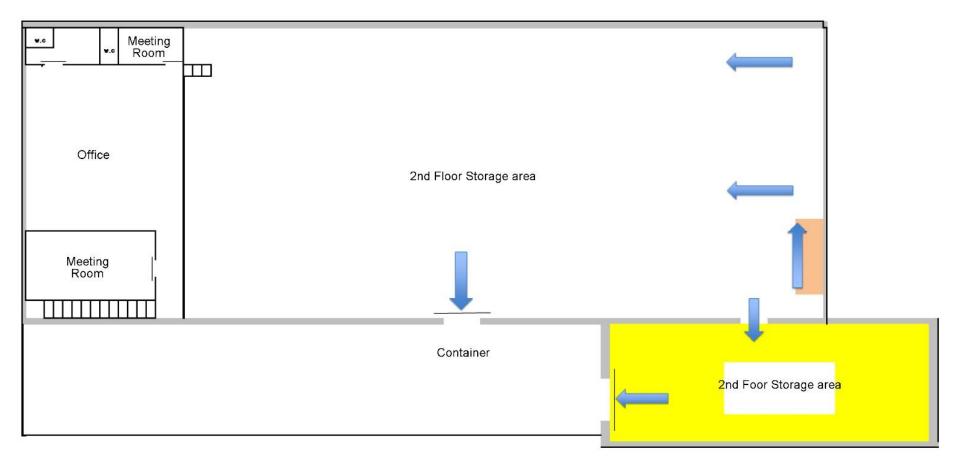


Figure 3-4 Factory Layout Drawing (2nd Floor)

Myanmar GF Layout (3rd Floor)

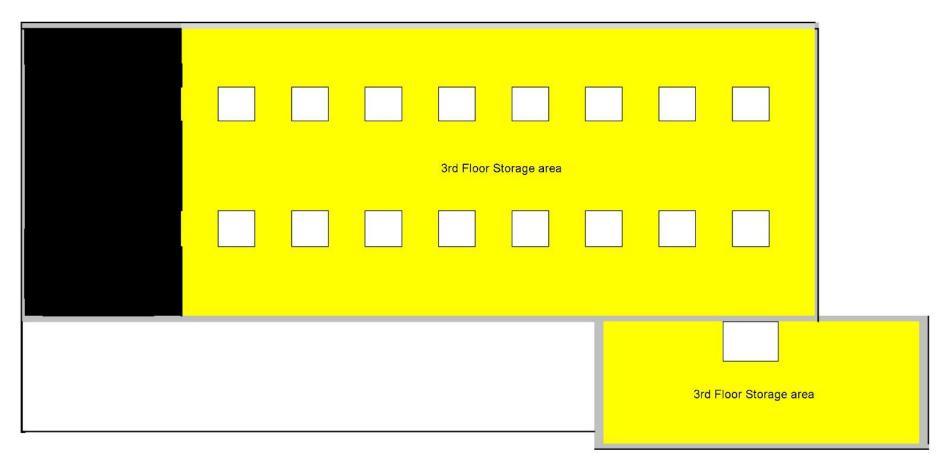


Figure 3-5 Factory Layout Drawing (3rd Floor)

3.2. PRODUCTION PROCESS

The production process starts Garment Inspection, Needle pass, Warehouse, Packing, and then Product. Zone Factories Import garments to the Myanmar GF company limited which all of the finished products are exported. The main operation of the proposed factory is quality controlling (garment Inspection) and packing of finished product Items. Then garment packing is completed and prior to shipping to destinations. Steps of production process of proposed bag factory are described in below.

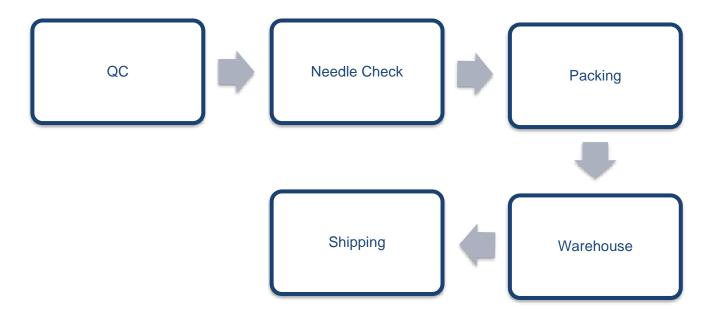


Figure 3-6 Process Flow Diagram

3.2.1. Description of Production Process

The first stage, quality control (QC) checks for any error. Quality control was done manually. The QC passed units are sent to packing as a final production process. This step sends packed units for distribution to the customers. These packed units are sent to the countries per customer's specification. Packing process was done manually by manpower.





QC



Packing Figure 3-7 Production Photos

3.2.2. Products

Myanmar GF Company Limited is not produced any products, they just do quality controlling (such as garment inspection) and packing according to their client order.

3.3. UTILITIES

3.3.1. Raw Material

Myanmar GF Company Limited doesn't have the raw materials because of this factory is quality controlling (garment inspection) and packing of finished product items.

3.3.2. Machinery and Equipment

There has no any machinery.

3.3.3. Human Resource

Human resource required by foreign experts/technicians and local persons for administrative and production process are about 360 persons which are also described in Table 3-2. Working hour starts from 8:30 am to 5:00 pm. The lunchtime is from 11:50 am to 12:30 pm. Their working days were 224 days per annually. The company provides ferries to all staff and employee. Foreign experts and technicians stay at dormitory of the factory and the meals for such experts are provided.

Table 3-2 Employment List

No.	Position	Local Person	Foreign
1	Technician		1
2	Needle	40	
3	Poly Bag	45	
4	QC	274	
	Total	36	60

3.3.4. Water Requirement

Shwe Pyi Thar industrial zone has no centralized water supply system and the factory gets water from the tube wells installed inside the factory compound. Groundwater from this tube well is pumped in the storage tanks for the factory and domestic use. The main water use in the proposed project is for domestic usage such as for food preparation, and washing of utensils. Drinking water will be provided by outsource suppliers is described by water storage tank and drinking water supply for Myanmar GF Company Limited. The groundwater stores in the two storage tanks with capacity of 4600 gallons, domestics water uses 1.7 m³ and drinking water uses 100 liters per day.







Figure 3-8 Water Storage Tank and Drinking Water Supply



Figure 3-9 Water Drainage System Photo

3.3.5. Electricity and Fuel Requirement

The proposed project intended to get required electricity supply form Yangon City Electricity Supply Board (YESB) and distributed by 800 kVA of Transformer connecting 70kVA overhead lines and another sources of energy 200 kVA generator which also be kept as the emergency generator if normal electricity supply could not provide for the proposed project. Electrical works, materials and equipment are consistent with Myanmar Standards and electrical codes of practice. Annually, estimate electricity usage is 185,328 kilowatts per hour.

Required petrol and diesel for vehicles and generator are purchased from the nearest petrol station. Only diesel is stored in a tank of 150 gallons/ liters beside the generator room. To handle the leakage and spillage of the diesel, an interception with sand is kept under the tank. Annual fuel requirement of the project is shown in Table 3-3.

Table 3-3 Annual Fuel Requirements

No	Fuel Use	Unit	Year 1	Year 2	Year 3-10
1.	Diesel for Generator	Gallons	1200	1200	1200









Figure 3-10 Electricity and Fuel Facility

3.4. FACILITIES

3.4.1. Fire Hazards Protect Facility

The project proponent has provided 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 is also constructed with the capacity of 2800 gallons 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 3-11.



Figure 3-11 Firefighting System

3.4.2. 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 3-12. 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 YCDC 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.

3.4.3. 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 YCDC's service.





Figure 3-12 Waste Storage Photo

3.4.4. Medical and Health Facility for Employments

Medicines and first aid kits are provided in this Factory. Moreover, these medicines and first aid kits are provided for emergency cases of workers. First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for 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. The project proponent must manage the drainage systems of the factory to prevent health risk of the workers. According to OSHA, the maximum allowable noise level for workers is 90 dB (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, need to provide if actual noise level monitoring results are more than 90 dB (A) at the work site for working time hours for 8 hours.

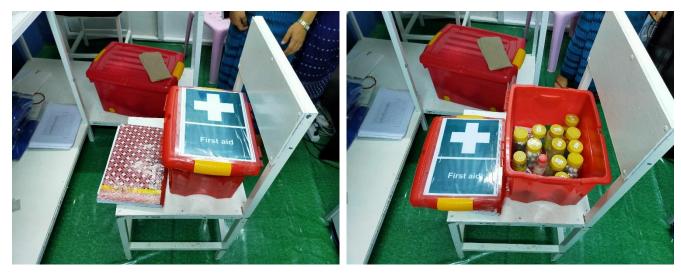


Figure 3-13 First Aids and Medical Room Photo

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 methodologies are used for Environmental Management Plan (EMP) for this report preparation;

- Onsite Measurements and Analysis Baseline parameters such as air quality monitoring,
 Indoor temperature, humidity, operation light conditions, noise and water quality of the project site.
- Secondary data collection of proposed project site area Socio economic condition, physical/biological environment, and weather data are collected from official township data of Shwe Pyi Thar Township, Yangon Region.

4.2. ENVIRONMENTAL BASELINE STUDY

The field observation for determining the environmental baseline of the proposed project area was undertaken during construction 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, ambient air quality samples, noise and indoor temperature and humidity measurements at immediate surrounding areas. To determine the existing baseline environmental quality within the project site on 31 October 2019.

The overall conditions of air quality, water quality, soil quality, and noise levels are quoted from the project. The summary of the field survey for overall conditions is shown in Table 4-1.

Table 4-1 Summary of Environmental Survey

Item	Parameter
Air Quality	(1) Sulfur dioxide (SO2), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO2), (4) Ozone (O3), (5) PM10 and PM2.5
Noise level	Indoor sound level (LAeq)
Light Level	Industry light condition (Lux)

4.2.2. Air Quality

To determine the existing baseline ambient air quality status within the project site on 31, October 2019, 8-hours of working period air pollutants level, which include dust (PM₁₀ and PM_{2.5}) and gases (CO, CO₂, SO₂, NO₂) were measured at the selected site using the Oceanus air 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 16°53'23.16"N and longitude 96°9'21.87"E.

It was observed that the air quality of CO, O₃, NO₂, CO₂ and SO₂ concentration level are within the limit of NEQ (emission) guideline but particulate matter (PM₁₀, PM_{2.5}) and gases level of Nitrogen Dioxide (NO₂) are also within the National Environmental Quality (Emission) Guideline. ^[4]

Table 4-2 Observed air quality results

Parameters	Observed value	Guideline value	Unit	Organization	Period		
Indoor Air Qualit	Indoor Air Quality Monitoring						
PM ₁₀	46.2	50	μg/m³	NEQG	24 hrs		
PM _{2.5}	22.8	25	μg/m³	NEQG	24 hrs		
Outdoor Air Qua	Outdoor Air Quality Monitoring						
PM ₁₀	48.8	50	μg/m³	NEQG	24 hrs		
PM _{2.5}	26.1	25	μg/m³	NEQG	24 hrs		
O ₃	81.8	100	μg/m³	NEQG	8 hrs		
NO ₂	51.9	200	µg/m³	NEQG	1 hr		
SO ₂	40.9	500	μg/m³	NEQG	10 mins		
СО	0	10	µg/m³	NEQG	8 hrs		

NEQG = National Environmental Quality (Emission) Guideline





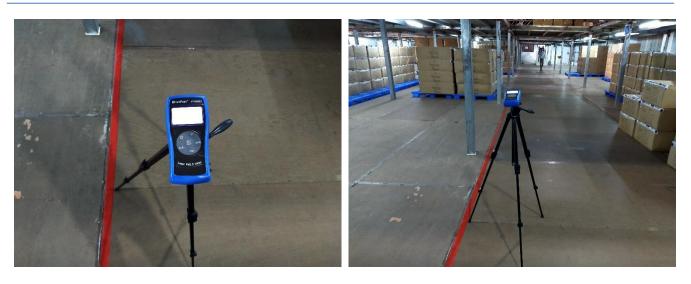


Figure 4-1 Air Quality Measurement Photos

4.2.3. Noise Level

The Noise level was measured by using Digital Sound Level Meter for parameter of A-weighted loudness equivalent (LAeq). Noise survey were located in project site.

Table 4-3 Location of Noise Level Survey Point

Survey point	Coordinates	Type of survey point	Measurem ent Result	NEQ Guidelin e	Description of survey point
Noise level	16°53'23.16"N 96°9'21.87"E.	Project area	67.44 dBA	70 dBA	Inside the Shwe Pyi Thar Industrial Zone

4.2.3.1. Survey method

Measurement of noise level was conducted by referring to the recommendation of the International Organization for Standardization (ISO 1996-1/2003 & 1996-2/2007). The instrument used for noise measurement was set at the height of 1.2 m. A-weighted loudness equivalent level was measured automatically every 20 seconds and recorded in a memory card. Survey result of Noise level (LAeq) along the survey point is presented in Table. Noise levels measured on both weekday and weekend, which were found to be lower than the tentative target value. It is obvious that noise levels measured at the same point on weekday were higher than those on weekend.



Figure 4-2 Noise Level Measurement Photos

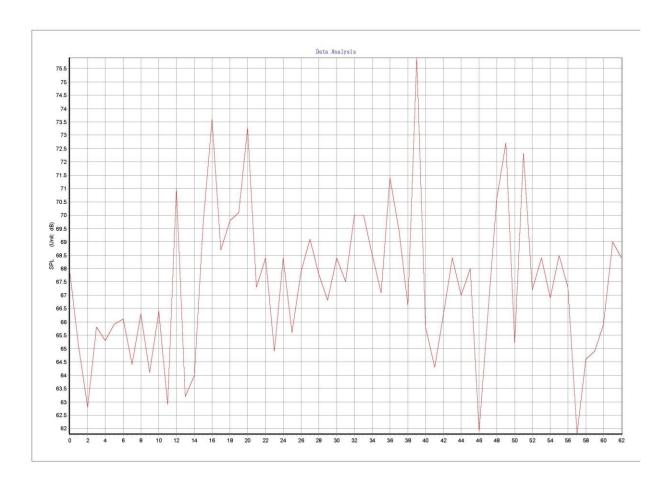


Figure 4-3 Noise Level Graph

4.2.4. Light

Activities of the workers in garment inspection factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in garment inspection factory is presented in below. The illustrates the recommended illumination and limiting glare index applicable to

typical works (fairly severe to very severe tasks) in garment inspection factory is provided in Table 4-4. 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 a garment inspection factory, like the inspection points (on-floor and in stores), sampling, iron section and the finishing section, as these areas are crucial to the quality of the production. The tasks involved in these areas require high levels of worker focus and accurate lighting ensures 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 good condition to the acceptable level of standard.

Table 4-4 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 of Myanmar GF Company Limited

Table 4-5 Light Measurement in Myanmar GF Company Limited

No.	Location	Measure value (Lux)	Standard*
1	QC (1)	1528	2000
2	QC (2)	1865	2000
3	Poly area (1)	1646	2000
4	Poly area (2)	1568	2000
5	Needle pass	561	600

1	No.	Location	Measure value (Lux)	Standard*
	6	Ware house	370	600

^{*} Lighting standards and codes usually provide recommended illuminance ratios between the task area and its surroundings (EN 12464-1 2002) (CIBSE 1997) (IESNA 2000, 676708).

4.2.5. Indoor Temperature and Humidity

The indoor temperature and humidity condition during 31, October 2019 shows the average temperature of 31.73 °C while the average humidity is 52.8 % as shown in Table 4-6.

Table 4-6 Temperature and Humidity Measurement at Factory

Date and Time	Description	Result value	Environmental parameter air station guideline
31 October 2019	Relative Humidity RH %	52.8 (%)	Present condition
(10:00 am to 3:00 pm)	Temperature	31.73 °C	Present condition





Figure 4-5 Temperature and Humidity Measurement in Operation Area of the Factory

4.3. PHYSICAL COMPONENT (SECONDARY DATA)

4.3.1. Topography

Yangon area is the largest; most populated and urbanized area in Myanmar. There are thirty-three townships in Yangon city where located at the convergenceon the Yangon and Bago River region about 34 km away from the Gulf of Martaban. The proposed project area is situated at Shwe Pyi Thar Industrial Zone (1), Shwe Pyi Thar Township, and its topographic condition is flat. The proposed project site is primarily agricultural land, but now is initiated into the industrial zone area.

4.3.2. Geology

In Yangon area mainly composed of Pegu Group, Irrawaddy Formation and Alluvium. Alluvial deposits (Pliestocene to Recent), the non-marine fluvialtile sediments of Irrawady formation (Pliocene), and hard, massive sandstone of Pegu series (early-late Miocene) underlie the Yangon area. Alluvial

deposits are composed of gravel, clay, silts, sands and laterite which lie upon the eroded surface of the Irrawaddy formation at 3-4.6 m above mean sea level (MSL). The rock type in Yangon is mainly soft rocks, which consist of sandstone, shale, limestones and conglomerate. Geological map of Yangon Regional area is shown in Figure 4-6.

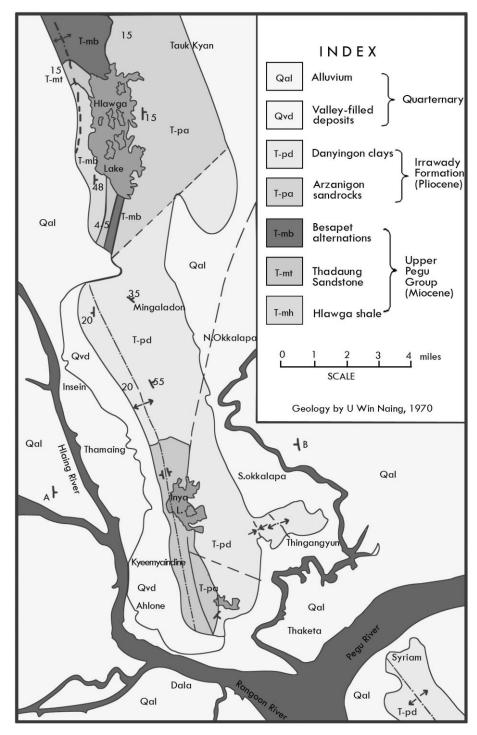


Figure 4-6 Geological Map of Yangon Region

4.3.3. Tectonics

Yangon is situated in the southern part of the Central Lowland which is one of the three major tectonic provinces of Myanmar. The Taungnio Range of the Gyophyu catchments area of Taikkyi District, north of Yangon, through the Thanlyin Ridge, south of Yangon forming a series of isolated hills probably resulted from the progressive deformation of the Upper Miocene rocks as the eastern continuation of the subduction or stretching and compression along the southern part of the Central Basin and regional uplifting of the Pegu Yoma (Aung Lwin 2012).

4.3.4. Soil

The underlying soil type at the Project Site and its surroundings is characterized as the Meadow and Meadow Alluvial Soil. Meadow Soil is soil which occurs near the river plains exposed to occasional tidal floods, is non-carbonate and usually contains a large amount of salt. Both materials mainly comprise silty clay loam and neutral soil rich in plant nutrient. The upper layers (approximately 0 to 7 m) of the soil at the Project Site comprise largely of cohesive layers with traces of sand and gravel, followed by sand layers with low silt content and trace gravel from 7 to 35 m. The lower layers comprise denser silt layer with traces of sand and gravel from approximately 57 to 70 m. Standard Penetration Test (SPT) results obtained from testing at the Project Site indicate that the soil strength generally increases with depth. The STP results showed that the current soil quality can accommodate the construction of the Project.

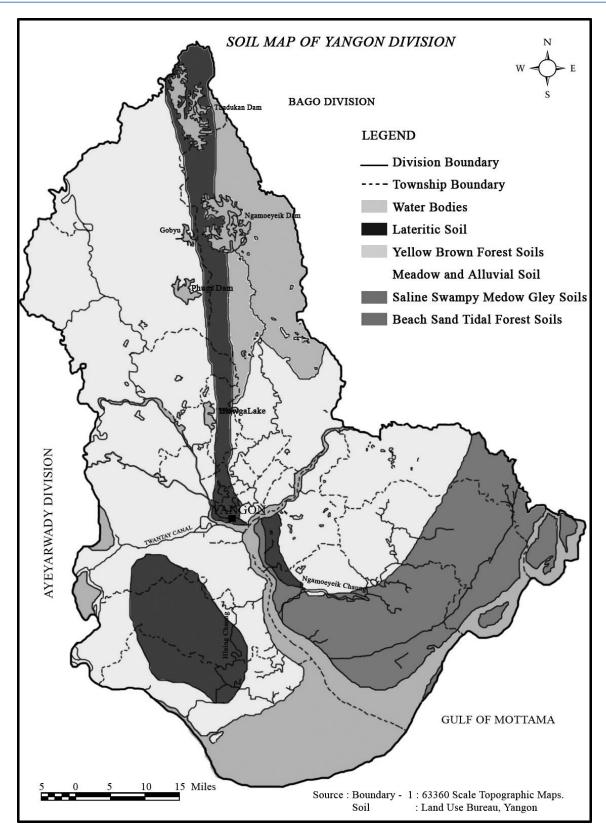


Figure 4-7 Soil Map of Yangon (Source: Land use of Bureau of Yangon)

4.3.5. Hydrogeology

Yangon is rich in groundwater resources conserved by unconsolidated Tertiary-Quaternary deposits. In Yangon, groundwater is mostly extracted from Valley filled deposits and Ayeyarwady sandstones.

Groundwater: Groundwater availability is generally based on the distribution of permeable and relatively impermeable rocks. The nature of openings in the rocks determines permeability of rocks. Based on local geological considerations, potential groundwater source of Yangon can be roughly divided into two sub regions, namely the low potential area and high potential area. Low potential areas are areas with those rock units of Hlawga Shale, Thadugan Sandstones and Basepet Alternation of upper Pegu Group (Miocene epoch) and Danyingon Clays of Irrawaddy rocks. These rocks and formations are a dense, massive and consolidated nature and have impervious characteristic. High potential areas are underlain by Pliocene Series and recent Formations. High potential area covers approximately 85 percent of the Yangon city including Pabedan. Stand pipe piezometers were installed at a depth of up to 30 m from the existing ground level while a pumping well was installed upon completion of the soil investigation works. Based on the results recorded up to the 8th of December 2012, stabilized groundwater level was observed to range between 0.49 m MSL to -1.81 m MSL4.

Water Supply: The Yangon City Development Committee (YCDC) has an overall responsibility for the management and distribution of water for Yangon City. Presently, YCDC's water supply is obtained from two main sources: (1) reservoir (Hlawga, Gyobu, Pugyi and Ngameoyeik reservoirs) and, (2) groundwater from YCDC's tube wells. Water from these sources is utilized to varying degrees. Areas not supplied with water from the YCDC rely on shallow surface wells and private boreholes. Water supply for the Project Site will be obtained from onsite borewells for both construction and operations due to the poor reliability of municipal supply. Permitting is part of the Planning Consent Application currently underway. The boreholes will be provided and operated by the Developer.

Hydrology: The Project Site lies along the catchment of the Hlaing River which flows north to south. The Yangon River (also known as the Rangoon River or Hlaing River) is formed by the confluence of the Pegu and Myitmaka rivers and flows into the Gulf of Martaban which is part of the larger Andaman Sea. The river flows along a 40 km stretch flowing from southern Myanmar as an outlet of the Ayeyarwady River into the Ayeyarwady delta. A small portion of the Bago River (the estuary) lies within the Yangon Division. The Pazundaung Creek and Bago River joins the Yangon River and from there, flow towards the Southwestern direction into Andaman Sea.

4.3.6. Climate and Meteorology

4.3.6.1. Average Weather in Yangon

In Yangon, the wet season is oppressive and overcast, the dry season is muggy and partly cloudy, and it is hot year-round. Over the course of the year, the temperature typically varies from 67 $^{\circ}$ F to 97 $^{\circ}$ F and is rarely below 62 $^{\circ}$ F or above 101 $^{\circ}$ F. $^{[6]}$

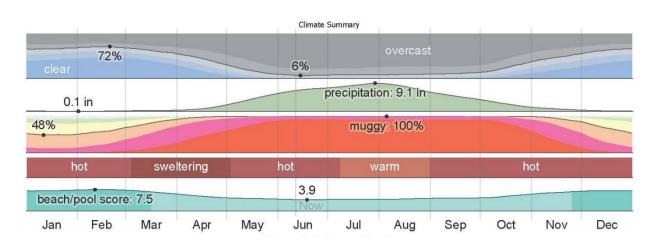


Figure 4-8 Climate Summary of Yangon Region

4.3.6.2. Temperature

The hot season lasts for 2.0 months, from March 2 to May 3, with an average daily high temperature above 95 $^{\circ}$ F. The hottest day of the year is April 11, with an average high of 97 $^{\circ}$ F and low of 78 $^{\circ}$ F.

The cool season lasts for 3.9 months, from June 2 to September 29, with an average daily high temperature below 87 $^{\circ}$ F. The coldest day of the year is January 10, with an average low of 67 $^{\circ}$ F and high of 88 $^{\circ}$ F.

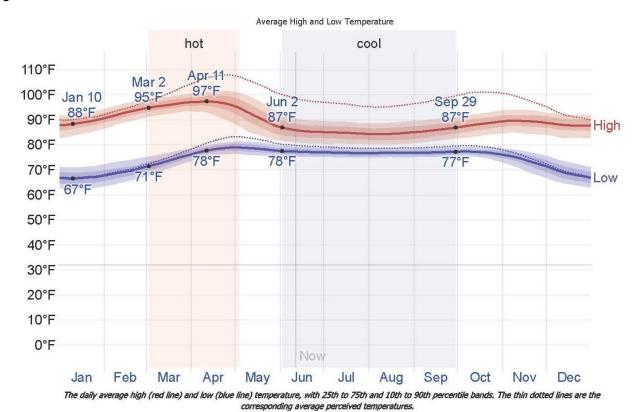
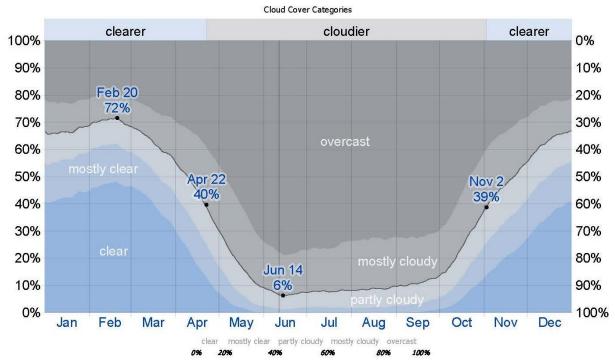


Figure 4-9 Average Temperature of Yangon Region

4.3.6.3. Clouds

In Yangon, the average percentage of the sky covered by clouds experiences extreme seasonal variation over the course of the year. In clearer part of the year in Yangon begins around November 2 and lasts for 5.6 months, ending around April 22. On February 20, the clearest day of the year, the sky is clear, mostly clear, or partly cloudy 72% of the time, and overcast or mostly cloudy 28% of the time.

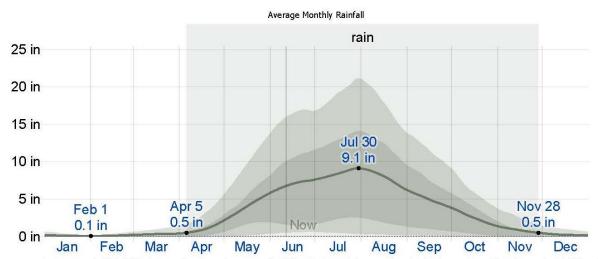


The percentage of time spent in each cloud cover band, categorized by the percentage of the sky covered by clouds.

Figure 4-10 Cloud Cover Categories

4.3.6.4. Rainfall

To show variation within the months and not just the monthly totals, we show the rainfall accumulated over a sliding 31-day period centered around each day of the year. Yangon experiences extreme seasonal variation in monthly rainfall. The rainy period of the year lasts for 7.7 months, from April 5 to November 28, with a sliding 31-days rainfall of at least 0.5 inches. The most rain falls during the 31 days centered around July 30, with an average total accumulation of 9.1 inches. The rainless period of the year lasts for 4.3 months, from November 28 to April 5. The least rain falls around February 1, with an average total accumulation of 0.1 inches.



The average rainfall (solid line) accumulated over the course of a sliding 31-day period centered on the day in question, with 25th to 75th and 10th to 90th percentile bands. The thin dotted line is the corresponding average liquid-equivalent snowfall.

Figure 4-11 Average Monthly Rainfall at Yangon Region

Table 4-7 Annual Rainfall and Temperature

Year	Rainfall		Rainfall Temperature		ature
	Raining day	Rainfall value	Summer season Max (°C)	Winter season Min (°C)	
2015-2016	105	84.91	34	30	
2016-2017	116	85.89	34	30	
2017-2018	97	86.70	38	30	
2018-2019	69	1320	41	30	

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

4.3.6.5. Humidity

We base the humidity comfort level on the dew point, as it determines whether perspiration will evaporate from the skin, thereby cooling the body. Lower dew points feel drier and higher dew points feel more humid. Unlike temperature, which typically varies significantly between night and day, dew point tends to change more slowly, so while the temperature may drop at night, a muggy day is typically followed by a muggy night.

Yangon experiences extreme seasonal variation in the perceived humidity. The muggier period of the year lasts for 10 months, from February 22 to December 23, during which time the comfort level is muggy, oppressive, or miserable at least 61% of the time. The muggiest day of the year is August 5, with muggy conditions 100% of the time. The least muggy day of the year is January 11, with muggy conditions 48% of the time.



Figure 4-12Humidity of Yangon

4.3.6.6. Wind

This section discusses the wide-area hourly average wind vector (speed and direction) at 10 meters above the ground. The wind experienced at any given location is highly depended on local topography and other factors, and instantaneous wind speed and direction vary more widely than hourly averages. The average hourly wind speed in Yangon experiences significant seasonal variation over the course of the year. The winder part of the year lasts for 4.1 months, from May 1 to September 4, with average wind speeds of more than 8.2 miles per hour. The windiest day of the year is June 24, with an average hourly wind speed of 10.6 miles per hour. The calmer time of year lasts for 7.9 months, from September 4 to May 1. The calmest day of the year is January 9, with an average hourly wind speed of 5.8 miles per hour.

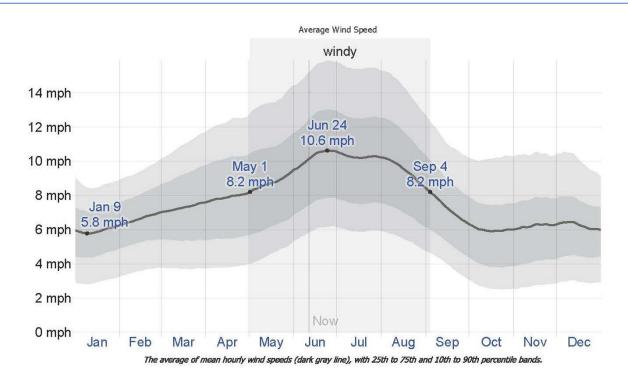


Figure 4-13 Average Wind Speed in Yangon

4.4. BIOLOGICAL COMPONENT (SECONDERY DATA)

As the proposed project area is located in the industrial zone, the information of ecological resources is very unlikely. In addition, within the proposed project area, there are no forests, protected areas and coastal resources. The proposed project site is not located in or near a sensitive ecosystem as the proposed project area is situated in the Shwe Pyi Thar Township. The Project Site is a built-environment and the species of flora surveyed at the site are native species uncommon to the Yangon area.

Ecological Resources	Existing condition								
Fisheries, aquatic biology	The nearest river is Hlaing river. Fresh water fish species are residing in the river								
Wildlife	Non existence								
Forests	Non existence								
Rare or endangered species	Non existence								
Protected areas	The nearest protected areas is Hlaw Gar Park which is located in the northeastern part of the project site								
Coastal resources	A few mangrove species observed at the river bank of Hlaing river								

4.5. SOCIO-ECONOMIC COMPONENT

4.5.1. Population

Myanmar GF Company Limited is located across Shwe Pyi Thar Township in Yangon Region. In 2019, the population of Shwe Pyi Thar Township is about 284,922 people as present in Table 4-8.

Table 4-8 Population of Males and Females at Shwe Pyi Thar Township (2019)

Item	(Over 18 yea	r	U	Inder 18 yea	ar	Total			
	Males	Females Total		Males Females Total Males Females Total		Males	Females	Total		
Urban	80,330	93,866	174,196	32,429	33,876	66,305	112,759	127,742	240,501	
Rural	15,444	18,964	34,408	4,960	5,053	10,013	20,404	24,017	44,421	
Total	95,774	112,830	208,604	37,389	38,929	76,318	133,163	151,759	284,922	

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

4.5.2. Religion

The different kinds of religion present in Shwe Pyi Thar Township are shown in Table 4-9. More than 90% of the people living in the township are Buddhists.

Table 4-9 Religion in Shwe Pyi Thar Township (2019)

Township	Buddhist	Christian	Hindu	Muslim	Other	Total
Shwe Pyi Thar	269,764	7,476	2,601	4,882	199	284,922

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

4.5.3. Local Economy

Among regional towns, Shwe Pyi Thar 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 employment of factory. Services and facilities available include:

- post office
- · beauticians
- butcher
- hairdressers
- furniture and electrical store
- restaurants
- cafes
- · shoe and clothing shops
- industrial services
- pharmacy
- veterinarian
- bus service
- gift stores
- music store
- pubs and bars
- florist

4.5.4. Public Infrastructure and Access

4.5.4.1. Communication and Transportation

Major transportation route in Shwe Pyi Thar Township are railway, port, and car road as presented in Table 4-10.

Table 4-10 Transportation Route

Categories	Town	Township				
	From	То				
Railway (Yangon-Pyay railway)	Hlwaga	1 ward	4.2			
Inland water way	18 ward	Hlwaga	4.2			
Bus line (39, 40, 42, 44, 65, 69, 72, 73, 74, 77)	Hlwaga	Downtown area	-			
Car (No 4. Main road)	1 ward	Hlwaga	5.1			

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

4.5.4.2. Electricity

The electricity demand of Shwe Pyi Thar 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 i.e. basic education primary school (B.E.P.S.), basic education middle school (B.E.M.S), basic education high school (B.E.H.S) and Computer University, in the Shwe Pyi Thar Township. The name and the located village tract/ ward of schools are described in Table 4-10.

Table 4-11 List of Major School in Shwe Pyi Thar Township

No.	Name of School	Location
1.	Computer University Yangon	Kyaung Gone Village Tract
2.	BEHS (1)	No.6 Ward
3.	BEHS (2)	Hlawga Village Tract
4.	BEHS (3)	No.8 Ward
5.	BEHS (4)	Zee Gone Village Tract
6.	BEHS (5)	No.9 Ward
7.	BEMS (Branch) (2)	No.19 Ward
8.	BEMS (Branch) (3)	No.5 Ward
9.	BEMS (Branch) (4)	No.9 Ward
10.	BEMS (Branch) (8)	No.23 Ward
11.	BEMS (Branch) (11)	No.8 Ward
12.	BEMS (1)	Hlawga Village
13.	BEMS (5)	No.15 Ward

No.	Name of School	Location
14.	BEMS (6)	No.17 Ward
15.	BEMS (7)	No.9 Ward
16.	BEMS (9)	No.11 Ward
17.	BEMS (10)	No.14 Ward
18.	BEMS (12)	No.10 Ward
19.	BEMS (13)	No.20 Ward

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

4.5.4.4. Health Status

The diseases of high prevalence reported in 2019 are Tuberculosis (TB), followed by Acute Respiratory Infection (ARI), Diarrhea, TB and snakebites. With reference to the Township Health Profile 2019 of Shwe Pyi Thar Township, no accidental work injuries reported to the township hospital in 2019. The common diseases are shown in Table 4-12.

Table 4-12 Common Diseases in the Shwe Pyi Thar Township

Diseases	Shwe Pyi Thar Township						
	Morbidity	Mortality					
Hypertension	921	13					
Dysentery	6	-					
Diarrhea	76	-					
TB (Sputum+)	192	-					
Hepatitis	392	-					
HIV/AIDS	12	-					

Table 4-13 Lists of Hospital in Shwe Pyi Thar Township

Hospital Name	Beds/Services	Responsible		
Township Hospital	35	Government		

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

4.6. CULTURAL AND VISUAL COMPONEMTS

Shwe Pyi Thar 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 Shwe Lin Ban 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.

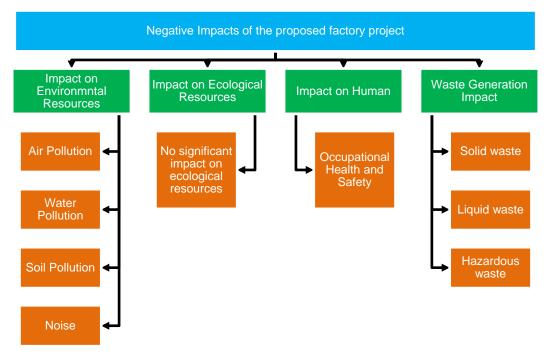


Figure 5-1 Potential Negative Impact Affect from Proposed Project

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

A		Scale											
Assessment	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. 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	Е	Р	SP			
Impact on En	vironmental Resource								
Air	Emission from emergency diesel generator and vehicle movement	1	4	1	1	6	Insignificant	Emergency generator is operated due normal electricity outage	No Mitigation Measure
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 the oil spillage at this area is insignificant.	No Mitigation Measure
Noise and Vibration	Generating noise from the production machinery	1	4	1	1	6	Insignificant	There is insignificant impact on surrounding environment.	No Mitigation Measure
Impact on Ec	ological Resources		•			•		•	

Categories	Source of Impact	Po	gnifi ten pac	tial	nt of	Ŧ	Impact Significance	Reason	Mitigation Measure
		М	D	Ε	Р	SP			
Flora and fauna on terrestrial and aquatic life	Operation of the garment inspection factory	1	4	1	1	6	Insignificant	Not Significant Impact on Ecological Resources	No Mitigation Measure
Impact on Hu	ıman								
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.
Health	Influx of people	2	4	1	2	14	Very Low	Overcrowded of population may be a fuel in infection of corona virus disease.	 Provide the hand-wash basin, hand sanitizer and face masks and then specify the social distancing.

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Categories	Source of Impact	Po	gnifi ten	tial	nt of	f	Impact Significance	Reason	Mitigation Measure
		М	D	Ε	Р	SP			
								 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.
Waste Gener	ration Impact								
Solid Waste	 Waste from packaging materials Waste from kitchen, dormitory and office. 	2	4	1	3	21	Low	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 YCDC's service.

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Categories	Source of Impact	Potent		nificant of tential pacts		i	Impact Significance	Reason	Mitigation Measure
		М	D	Ε	Р	SP	J		
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.

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.

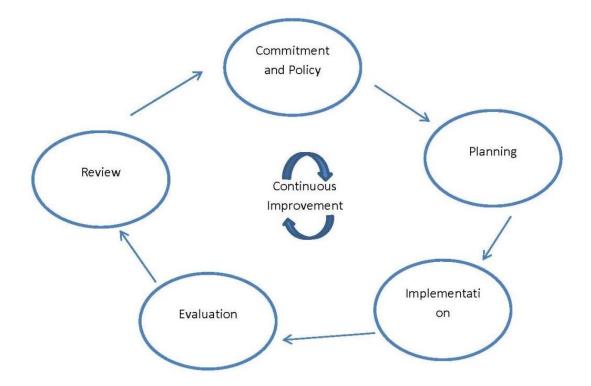


Figure 6-1 Continuous Improvement Circle

 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.
- o **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

Myanmar GF Company Limited 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:

Myanmar GF Company Limited: 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 Myanmar GF Company Limited for EMP implementation facilities.

ECD (Yangon 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

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. The S&E officer will have responsibilities that include:

- 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 nonconformances with the EMP and require the HR supervisor to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

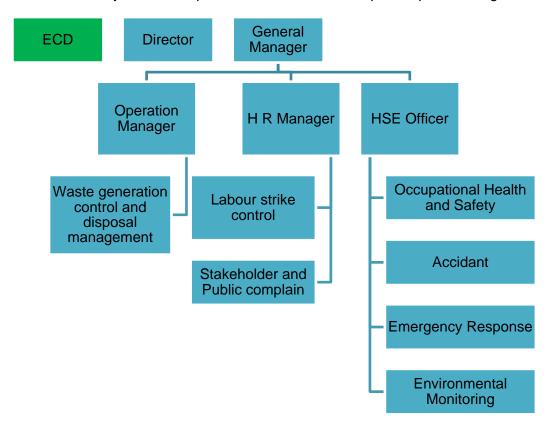


Figure 6-2 Organization Structure of Environmental Management Plan

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
	 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.

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6.2. ENVIRONMENTAL MANAGEMENT PROCESS

The Environmental Management Plan (EMP) prepared for the proposed project covers the anticipated impacts of the said project, mitigation measures, management and monitoring plans during each of the phases:

- Operation and
- Decommissioning

The detailed EMP based on the project activities is seen in Error! Reference source not found. and Table 6-3

Table 6-2 Environmental Management Process During Operation Phase

List	Project Activities	Potential Impact	Mitigation measure	Estimated Cost (Kyats)	Inspection Type	Frequency	Responsible person
1	Cooking, air conditions, use of pesticide from canteen and dormitory	Air pollution, water pollution	Installation of exhaust fans in canteen, use of masking agents and efficient ventilation system in factory, use of air-con system, putting indoor potted plants for air refreshment of office,	500,000/year	Regular check	Monthly	Operation Manager and HR Manager of Myanmar GF Co., Ltd.
2	Employees	Health and safety problems, accidents, ground water depletion,	Providing PPE and first aid facilities, conjunctive use of ground water and municipal water, application of water saving devices & water conservation measures, rain and storm water harvesting, effective sanitary system, application of sewage treatment plant, firefighting and protection system, adequate clear aisles and exits, safe wiring and electrical system, satisfactory controls of noise and temperature	2,000,000/year	Regular check	Monthly	Operation Manager, HR Manager and HSE Officer of Myanmar GF Co., Ltd.
3	Influx of people	Health and social risks	preventive actions and adequate health facilities.	1,000,000/year	Arrangement for requirements,	Monthly	Operation Manager, HR Manager and HSE

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List	Project Activities	Potential Impact	Mitigation measure	Estimated Cost (Kyats)	Inspection Type	Frequency	Responsible person
			Providing the hand-wash basin, hand sanitizer and face masks and then specify the social distancing.		restriction and regular check, awareness program		Officer of Myanmar GF Co., Ltd.
4	Project implementation	Largely positive in	npacts				Myanmar GF Co., Ltd.

Table 6-3 Environmental Management Process During Decommissioning Phase

List	Project Activities	Potential Impact	Mitigation measure	Estimated Cost (Kyats)	Inspection Type	Frequency	Responsible
1	Decommissioning of building	Nuisance, air pollution, noise pollution, loss of aesthetic feature of land, soil contamination, water pollution	Spraying water over the area, installation of temporary cover, occupational preventative measures, keeping temporary noise barriers, use of noise enclosures for diesel generators, rotation of workers in noise area, providing hearing protective wears to workers,	4,500,000	Giving information about potential impacts and restrictions, regular check	Daily check	HSE Officer of Demolish Company and Land Owner
2	Transportation and disposal of demolished materials from site	Air pollution, noise pollution, soil contamination, water pollution	Usage of vehicles having efficient engines & exhaust system, installation of temporary cover, reuse and recycling waste	2,000,000	The same as above	Daily	HSE Officer of Demolish Company and Land Owner
3	Operation of machinery and equipment	Noise pollution, soil contamination, water pollution	Usage of machines & equipment having efficient engines & exhaust system and properly designed control system of equipment	550,000	The same as above	Daily	HSE Officer of Demolish Company and Land Owner

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List	Project Activities	Potential Impact	Mitigation measure	Estimated Cost (Kyats)	Inspection Type	Frequency	Responsible
4	Workers and staff	injury or mortality	Application of temporary toilets, separate septic tanks and rubbish bins, use of personal protective equipment, providing first aid facilities, site fencing & safety signboards	3,000,000	Arrangement for requirements, restriction and regular check	Daily	Demolish Company and Land Owner

6.3. ENVIRONMENTAL MONITORING SCHEDULE AND REPORTING

The EMoP 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 EMoP. Table 6-4 is provided the environmental monitoring schedule for Myanmar GF Company Limited The factory submits monitoring report to the Ministry not less frequently than every six (6) months, as provided in a schedule in the EMP,

Table 6-4	Environmental Monitoring Plan During Operation Phase
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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/16°57'1.13"N 96° 5'47.80"E	(General Manager) Myanmar GF 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 Myanmar GF Co., Ltd.
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	600,000/year	At the factory/ 16°57'1.13"N 96° 5'47.80"E	(Operation Manager, HR Manager and HSE Officer) Myanmar GF Co., Ltd.

Table 6-5 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 and Myanmar GF Co., Ltd.
Noise	Noise level in decibel (dBA)	One time during this phase	150,000	A suitable point of project site	Land Owner and Myanmar GF Co., Ltd.

6.4. CAPACITY BUIDLING AND TRAINNING 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
- 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
- o Employers must know that their employees know the emergency escape routes
- o 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 6-6 American National Fire Fighting Association (NFFA) Standards

No.	Parameters	Proposed Capacity	Remark
1	Fire water flow	14 bars	
2	Deluging rate	12.0 liters/m2/min	
3	Foam rate	10.0 liters/m2/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

- 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.

6.5. 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 Myanmar GF Co., Ltd. representative from Shwe Pyi Thar Industrial Zone and representative from General Administration Department (Shwe Pyi Thar 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.

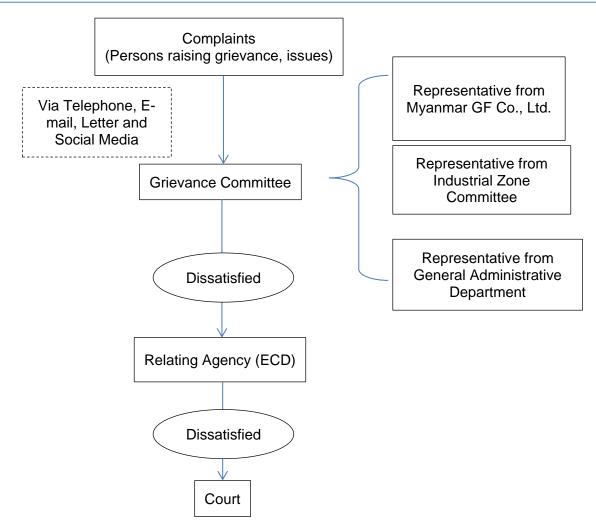


Figure 6-3 Grievance Redress Mechanism Flow Diagram

7. PUBLIC CONSULTATION

7.1. PUBLIC CONSULTATION PROCESS

This chapter presents results of public consultation and information disclosure conducted for the Myanmar GF Company Limited. Public participation can be considered as the required element of the EMP process. In this study various stakeholder's participation were made.

Public consultation during preparation of EMP report was conducted on 6, November 2019, following the EIA procedure.

The project's stakeholders in this category are key officials or representatives of the regional and local authorities who have direct responsibilities for the administration of the EMP process for environmental and social clearance and issuing operation permits for proposed development projects.

For this factory, relevant key offices at the national level are Environmental Conservation Department (ECD) and Industry Supervision and Inspection Department.

Relevant key office at the regional level is Yangon City Development Committee (YCDC), General Administrative Department, Fire Department, Factories and General Labor Law Inspection Department, Public Health Department, Industrial Supervision and Inspection Department.

Public consultation carried out after the presentation on the project, followed by questions, answers and discussion. U Saw Yan Nang presented EMP study and findings from Myanwei, after the presentation following question and answer section. Summary of public consultation meeting is presented. Figure 7-1 shown the consultation meeting photo.

Table 7-1 Summary of Public Consultation Meeting

Time and Date	Wednesday,6 November 2019 10:30-12:30
Venue	Meeting room, Kanaung Hall, Shwe Pyi Thar Industrial Zone Management Committee Office, Shwe Pyi Thar Township, Yangon.
Agenda	Presentation on the Background Information of Project, Project Description, Impact Assessment, Environmental Mitigation Environmental Management Plan and Monitoring Plan Received and Answer from feedback of participants

7.2. RECOMMEND SUGGESTION AND COMMENT

After the presentation, the floor opened for questions and answers. There is no suggestion and comment for presentation and EMP draft report, because the project is quality controlling (garment inspection) and packing of finished product items. In addition,

U Kyaw Kyaw; Assistant supervisor (Environmental Conservation and Cleaning Department-Industrial Section) YCDC

- He recommended that to noted when they wasted the septic tank capacity
- He also advice to do the drainage to be better than the former, on the other-hand they ought to reduce the odour of this drainage.

- He also suggested that to get a bail when they wasted with the YCDC and
- Finally, he recommended that when they sold their waste to the other local buyer who must have the concerning certificate for this case.

U Vial Ngaih Lian; Public Health Department

- He suggested that to build more toilet than the former especially for the women
- He also suggested that when they hire the nurse who must have the concerning certificate
- He suggested that to call a doctor for their factory and
- He requested that to create a health information event

U Aung Phyo Wai; Ministry of Natural Resources Environmental Conversation Department (Yangon)

- He suggested that when the air monitored at that time should do more time than the former and
- He recommended that to do the Corporate Social Responsibility (CSR) plan yearly.













Figure 7-1 Public Consulting Meeting

7.3. 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 Myanmar GF Company Limited consists of three main sectors; Health, Education and Community Development Sector. CSR activities are conducted in compliance with MIC's guideline for implementation of CSR program.

Myanmar GF Company Limited will contribute 2% of our Net Profit to social welfare activities that will help society and country of Myanmar. Our social welfare activities shall include training of our employees such as on job training to be more qualified, language training on weekends with experienced teachers and providing necessary healthcare such as medical checkups and giving proper medical knowledge about deceases and its prevention. Part of our CSR activity such as donations will also contribute to public school around our factory Table 7-2.

Table 7-2 CSR Plan at Myanmar GF Company Limited

No.	Particle	Contribution
1	Public school	0.5%
2	Non-profit training	1
3	Employee healthcare	0.5%

7.3.1. Public School

We will contribute 0.5% of our net profit to the 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.

7.3.2. Non-profit Training

We will contribute 1% of our net profit for the trainings of our Employees. Our trainings include job-related trainings, language trainings and safety trainings. The main objective of our trainings are that

we want our Bag and Bag's Strings with their work but also improving their other skills such as language and promoting knowledge about safety measures and occupational health employees to be not only become more productive and more qualified.

7.3.3. Healthcare

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.

8. CONCLUSION & RECOMMENTATION

8.1. CONCLUSION

Environmental Management Plan (EMP) has been prepared for Myanmar GF Company Limited is located at Plot No.95, Myay Taing Block No.42, Shwe Pyi Thar Industrial Zone 1, Shwe Pyi Thar Township, Yangon. 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 garment inspection factory.

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, the factory has positive impacts in terms of environmental 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.

The effective implementation of the mitigation measures proposed will ensure towards good environmental management within the proposed project area. Furthermore, the environmental monitoring plan prepared as part of the EMP will provide adequate opportunities to address any residual impacts during the operation phase.

In conclusion, it has been figured out that, the proposed garment inspection 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.

8.2. RECOMMENTATION

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 YCDC rules and regulation
- Workers should be provided proper training and it should be ensured that workers use the personal protective equipment (PPE)
- 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.

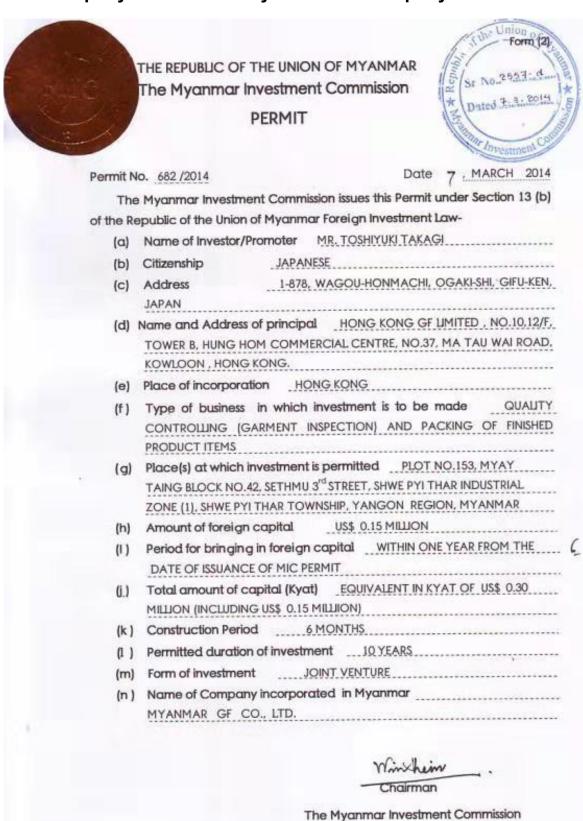
 Abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

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.

9. REFERENCE

- [1] General Administrative Department (Shwe Pyi Thar Township), Shwe Pyi Thar Township Data (2019).
- [2] Hla Hla Aung, Potential Seismicity of Yangon Region (Geological Approach), "Yangon Surface Displacement as Detected by Insar Time Series Analysis" July 2011.
- [3] Ministry of Natural Resources and Environmental Conversation (MONREC), "Environmental Impact Assessment Procedure" December 2015.
- [4] Ministry of Natural Resources and Environmental Conversation (MONREC), "National Environmental Quality (Emission) Guidelines" December 2015.
- [5] Specifications for accident prevention signs and tags, regulations (standards 29-CFR), Occupational Safety and Health Administration.
- [6] https;//weatherspark.com/y/112503/Average-Weather-in-Yangon-Myanmar-(Burma)-Year-Round.

APPENDIX A Company Document's Myanmar GF Company Limited



ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု တော်မရှင် ခွင့်ပြုမိန့်



ခွင့်ပြုမိန့်အမှင	တီ ၆၈၂ / ၂၀၁၄ ၂၀၁၄ ခုနှစ်၊ မတ်လ 🛾 ရက်		
	ထောင်စု သမ္မတ မြန်မာနိုင်ငံတော် နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှ ဥဝဒေဝုဒ်မ ၁၃ ပုဒ်မခွဲ(ခ)		
အရ တြံခွင့်ပြု	မိန့်ကို မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်က ထုတ်ပေးလိုက်သည်-		
(m)	ရင်းနှီးမြှုပ်နှံသူ/ကမကထပြုသူ၏အမည် MR. TOSHIYUKI TAKAGI		
	§δē∞≈ JAPANESE		
	နေရပ်လိပ်စာ <u>1-878, WAGOU-HONMACHI, OGAKI-SHI, GIFU-KEN</u> , JAPAN.		
(0)	ဝင်မအဖွဲ့ အစည်းအမည်နှင့်လိစ်စာ HONG KONG GF LIMITED, NO.10,12/F, TOWER B, HUNG HOM COMMERCIAL CENTRE, NO.37, MA TAU WAI		
	ROAD, KOWLOON, HONG KONG.		
(c)	ဖွဲ့ စည်းရာအရပ် ဟောင်တောင်		
(e)	INSPECTION) AND PACKING OF FINISHED PRODUCT ITEMS		
(20)	ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ) မြေတွက်အမှတ် - (၁၅၃)၊ မြေတိုင်းရပ်တွက် အမှတ် - ၄၂ ၊ စတ်မှု (၃) လမ်း၊ ရွှေပြည်သာစက်မှုဇုန် (၁)၊ ရွှေပြည်သာမြို့နယ် ၊ ရန်ကုန်တိုင်းဒေသကြီး		
(0)	o c T		
(oj)	နိုင်ငံခြားမတည်ငွေရင်းယူဆောင်လာရမည့်တာလ ကော်မရှင်ခွင့်ပြုမိန့် ရရှိပြီး (၁)နှစ်အတွင်း		
(<u>ව</u>)	စုစုပေါင်း မတည်ငွေရင်းပမာဏ (ကျပ်) အမေရိကန်ဒေါ် လာ ၀.၃၀ သန်း နှင့် ညီမျှသော မြန်မာကျပ်ငွေ (အမေရိကန်ဒေါ် လာ ၀.၁၅ သန်း အပါအဝင်)		
(g)			
(g)	ရင်းနှီးမြုပ်နှံခွင့်ပြုသည့် သက်တမ်း ၁၀ နှစ်		
(2)	C 505-D 59D5.		
(0)	TO 00 0 0 0 0 0 0		

မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုတော်မရှင်

13 5



THE REPUBLIC OF THE UNION OF MYANMAR MYANMAR INVESTMENT COMMISSION Building No.(32), Nay Pyi Taw

Our ref d DICA-6(A)/FI-868/2014(2557-d)

Tel: 067-406334, 406075

Date: 7 March 2014

Fax: 067-406333

Subject:

union o

Dated

Decision of the Myanmar Investment Commission on the Proposal for "Quality Controlling (Garment Inspection) and Packing" under the name of "Myanmar GF Co., Ltd."

Reference: Myanmar GF Co., Ltd. Letter dated (27.9.2013)

- 1. The Myanmar Investment Commission, at its meeting (31/2013) held on (4-12-2013) had approved the proposal for investment in "Quality Controlling (Garment Inspection) and Packing" under the name of "Myanmar GF Co., Ltd." submitted as a joint venture between Hong Kong GF Limited (50%) of Japan and Daw Khine Sabe Soe (40%), U Aung Soe Moe (10%) of the Republic of the Union of Myanmar.
- 2. Hence, the "Permit" is herewith issued in accordance with Chapter VII, section 13(b) of the Republic of the Union of Myanmar Foreign Investment Law and Chapter VIII, Rule 49 of the Foreign Investment Rules relating to the said Law. Terms and conditions to the "Permit" are stated in the following paragraphs.
- 3. The permitted duration of the project shall be 10 (Ten) years and extendable 5 (Five) years 2 (Two) times subject to approval by Myanmar Investment Commission. The land lease period shall be initial 2 (Two) years and extendable and renewable on yearly basis commencing from the date of signing of the Lease Agreement for land and building between Myanmar GF Co., Ltd. and U Mg Mg Aye (lessor).
- 4. The annual rent shall be US\$ 25,000 (United States Dollar twenty five thousand only) calculated for the total land and building area of 4156.13 square meter (1.027 acre).

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- 5. In issuing this "Permit," the Commission has granted, the following, exemptions as per section 27(a) and (h) of the Foreign Investment Law. Other exemptions and reliefs under section 27 shall have to be applied upon the actual performance of the project;
 - (a) As per section 27(a), income tax exemption for a period of five consecutive years including the year of commencement of commercial operation;
 - (b) As per section 27(h), exemption or relief from custom duty or other internal taxes or both on machinery, equipment, instruments, machinery components, spare parts and materials used in the business, which are imported as they are actually required for use during the period of construction of business;
- 6. Hong Kong GF Limited shall have to sign the Joint Venture Agreement with Daw Khine Sabe Soe and U Aung Soe Moe. Myanmar GF Co., Ltd. shall have to sign the Land Lease Agreement with U Mg Mg Aye (lessor). After signing said Agreements, each of (5) copies shall have to be forwarded to the Commission.
- 7. Myanmar GF Co., Ltd. in consultation with the Department of Company Registration, Directorate of Investment and Company Administration shall have to be registered. After registration, (5) copies each of Certificate of Incorporation and Memorandum of Association and Articles of Association shall have to be forwarded to the Commission.
- 8. Myanmar GF Co., Ltd. shall use its best efforts for timely of realization of works stated in the Proposal. If none of such works has been commenced within one year from the date of issue of this "Permit", it shall become null and void.
- Myanmar GF Co., Ltd. has to abide by Chapter X, Rule 58 and 59 of the Foreign Investment Rules for construction period.

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- 10. As per Chapter X, Rule 61 of the Foreign Investment Rules, extension of construction period shall not be granted more than one expect it is due to unavoidable events such as natural disasters, instability, riots, strikes, emergency of State condition, insurgency and outbreak of wars.
- 11. As per Chapter X, Rule 63 of the Foreign Investment Rules, if the Myanmar GF Co., Ltd. cannot construct completely in time during the construction period or extension period, the Commission will have to terminate the permit issued to the investor and there is no refund for the expenses of the project.
- The commercial operation date of the business shall be reported to the Commission.
- 13. The Commission approves periodical appointments of foreign experts and technicians from abroad as per proposal in accordance with Chapter XI, section 24 and section 25 of the Foreign Investment Law and Myanmar GF Co., Ltd. has to follow the existing Labour Laws for the recruitment of staff and labour and for training in accordance with Chapter XIII, Rule 84 of the Foreign Investment Rules.
- 14. In order to evaluate foreign capital and for the purpose of its registration in accordance with the provisions under Chapter XV, section 37 of the Foreign Investment Law, it is compulsory to report as early as possible in the following manner:-
 - (a) the amount of foreign currency brought into Myanmar, attached with the necessary documents issued by the respective bank where the account is opened and defined under Chapter XVI, Rule 134 and 135 of the Foreign Investment Rules;
 - (b) the detailed lists of the type and value of foreign capital defined under section 2(i) of the Foreign Investment Law, other than foreign currency.
- Myanmar GF Co., Ltd. brings in foreign capital defined under section
 of the Foreign Investment Law, other than foreign currency in the Confidential

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manner stated in paragraph 14(b) mentioned above, the Inspection Certificate endorsed and issued by an internationally recognized Inspection Firm with regard to quantity, quality and price of imported materials shall have to be attached.

- 16. Myanmar GF Co., Ltd. has the right to make account transfer and expend the foreign currency from his bank account in accordance with Chapter XVI, Rule 136 of the Foreign Investment Rules and for transfer of local currency generated from the business to the local currency account opened at the bank by a citizen or a citizen-owned business in the State and right to transfer back the equivalent amount of foreign currency from the foreign currency bank account of citizen or citizen-owned business by submitting the sufficient document in accordance with Chapter XVII, Rule 145 of the Foreign Investment Rules.
- 17. Myanmar GF Co., Ltd. shall report to the Commission for any alteration in the physical and financial plan of the project. Cost over run, over and above the investment amount pledged in both local and foreign currency shall have to be reported as early as possible.
- 18. Myanmar GF Co., Ltd. shall be responsible for the preservation of the environment at and around the area of the project site. In addition to this, it shall carry out as per instructions made by Ministry of Environmental Conservation and Forestry in which to conduct an Environmental Management Plan (EMP) which describe the measure to be taken for preventing, mitigation and monitoring significant environmental 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 to abide by the environmental policy, Environmental Conservation Law and other environmental related rules and procedures.
- Myanmar GF Co., Ltd. shall endeavour for fulfilling Corporate Social Responsibility (CSR) activities in Myanmar.

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- Myanmar GF Co., Ltd. shall have to abide by the Fire Services
 Department's rules, regulations, directives and instructions.
- 21. Payment of principal and interest of the loan (if any) shall be made out of the services income of Myanmar GF Co., Ltd.
- 22. Myanmar GF Co., Ltd. in consultation with Myanma Insurance, shall effect such types of insurance defined under Chapter XII, Rules 79 and 80 of the Foreign Investment Law.

(Win Shein)

Chairman

Myanmar GF Co., Ltd.

cc:

- Office of the Union Government of the Republic of the Union of Myanmar
- 2. Office of the Yangon Region Government
- 3. Ministry of Home Affairs
- 4. Ministry of Foreign Affairs
- 5. Ministry of Communication, Information and Technology
- 6. Ministry of Environmental Conservation and Forestry
- 7. Ministry of Electric Power
- 8. Ministry of Immigration and Population
- 9. Ministry of Commerce
- 10. Ministry of Finance
- 11. Ministry of Industry
- 12. Ministry of National Planning and Economic Development
- 13. Ministry of Labour, Employment and Social Security
- 14. Director General, Immigration and National Registration Department
- 15. Director General, Directorate of Trade
- 16. Director General, Internal Revenue Department

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- 17. Director General, Customs Department
- Director General, Directorate of Investment and Company Administration
- 19. Director General, Department of Fire Services
- 20. Director General, Directorate of Labour
- 21. Managing Director, Myanma Foreign Trade Bank
- 22. Managing Director, Myanma Investment and Commercial Bank
- 23. Managing Director, Myanma Insurance
- 24. Managing Director, Myanma Electric Power Enterprise
- Chairman, Republic of the Union of Myanmar Federation of Chambers of Commerce and Industry(UMFCCI)

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THE REPUBLIC OF THE UNION OF MYANMAR THE MYANMAR INVESTMENT COMMISSION

Amendment on Permit No. 682/2014 dated 7th March,2014

The Myanmar Investment Commission, at its meeting 17/2017 held on 22nd December 2017, approved the place of investment of Myanmar GF Company Limited be changed from Plot No. 153, Myay Taing Block No.42, Sethmu 3rd Street, Shwe Pyi Thar Industrial Zone (1), Shwe Pyi Thar Township, Yangon Region to Plot No. 95, Myay Taing Block No. 42, Industrial Area, Shwe Pyi Thar Township, Yangon Region.

(g) Place(s) at which Investment is permitted PLOT NO. 95, MYAY TAING BLOCK NO. 42, INDUSTRIAL AREA, SHWE PYI THAR TOWNSHIP, YANGON REGION

(Aung Naing Oo) Secretary

ge,

Date : 19 January 2018

Location: Yangon

ပုံစံ(၂) ပူးတွဲ-၁



ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်

၂၀၁၄ ခုနှစ်၊ မတ်လ ၇ ရက်နေ့စွဲပါ ခွင့်ပြုမိန့်အမှတ် ၆၈၂/၂၀၁၄ တွင်ပြင်ဆင်ချက်

၂၀၁၇ ခုနှစ် ဒီဇင်ဘာလ ၂၂ ရက်နေ့တွင် ကျင်းပခဲ့သော မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်၏ ၁၇/၂၀၁၇ အစည်းအဝေးဆုံးဖြတ်ချက်အရ Myanmar GF Company Limited ၏ ရင်းနှီးမြှုပ်နှံသည့် အရပ်ဒေသအား မြေကွက်အမှတ် ၁၅၃၊ မြေတိုင်းရပ်ကွက်အမှတ် ၄၂၊ စက်မှု ၃ လမ်း၊ ရွှေပြည်သာစက်မှုခုန် (၁)၊ ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးမှ မြေကွက် အမှတ် ၉၅၊ မြေတိုင်းရပ်ကွက် အမှတ်-၄၂၊ စက်မှုဒေသ၊ ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးဟု ပြင်ဆင်လိုက်သည်။

(ဆ) ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ) မြေကွက်အမှတ် ၉၅၊ မြေတိုင်း ရပ်ကွက်အမှတ်-၄၂၊ စက်မှုဒေသ၊ ရွှေပြည်သာ မြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး

> (အောင်နိုင်ဦး) အတွင်းရေးမှူး

ရက်စွဲ၊ ၂၀၁၈ ခုနှစ် ဧန်နဝါရီလ ၁၀ ရက် နေရာ၊ ရန်ကုန်မြို့



Confidential

THE REPUBLIC OF THE UNION OF MYANMAR **MYANMAR INVESTMENT COMMISSION**

No.(1), Thitsar Road, Yankin Township, Yangon

Tel: 01-658128

Our ref: MIC-3/FI-868/2018(012.)

Fax: 01-658141

Date:

to January 2018

Subject:

Decision of the Myanmar Investment Commission for

Amendment of factory location of Myanmar GF Company

Reference:

Myanmar GF Company Limited's letter dated on 26th December

- The Myanmar Investment Commission, at its meeting 17/2017 held on 22nd December 2017, approved the place of investment of Myanmar GF Company Limited be changed from Plot No. 153, Myay Taing Block No.42, Sethmu 3rd Street, Shwe Pyi Thar Industrial Zone (1), Shwe Pyi Thar Township, Yangon Region to Plot No. 95, Myay Taing Block No. 42, Industrial Area, Shwe Pyi Thar Township, Yangon Region.
- The annual rent for the land and building shall be Kyat 30.00 million (Kyat thirty million only) of the land area measuring 1.347 acres (5,451.121 square metres) for 2 (two) years.
- Hence, the location is hereby amended as Plot No. 95, Myay Taing Block 3. No.42, Industrial Area, Shwe Pyi Thar Township, Yangon Region accordingly on the Permit No. 682/2014 dated 7-3-2014.
- It is also notified that Myanmar GF Company Limited shall have to abide by all terms and conditions stated in the Commission's letter No. DICA-6(A)/ FI-868/2014 (2557-d) dated 7-3-2014.

for Chairman

(Aung Naing Oo, Secretary)

Myanmar GF Company Limited

cc: 1. Ministry of Home Affairs

- 2. Ministry of Office of the Union Government
- 3. Ministry of Natural Resources and Environmental Conservation

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GF-Decision

Inv-2

Confidential

-2-

- 4. Ministry of Labour, Immigration and Population
- 5. Ministry of Industry
- 6. Ministry of Commerce
- 7. Ministry of Construction
- 8. Ministry of Planning and Finance
- 9. Yangon Region Investment Committee
- 10. Office of the Yangon Region Government
- 11. Director General, Department of Environmental Conservation
- 12. Director General, Directorate of Labour
- 13. Director General, Department of Immigration
- 14. Director General, Directorate of Industrial Supervision and Inspection
- 15. Director General, Department of Trade
- 16. Director General, Directorate of Investment and Company Administration
- 17. Director General, National Archives Department
- 18. Director General, Customs Department
- 19. Director General, Internal Revenue Department
- 20. Yangon Region Office, Directorate of Investment and Company Administration

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Inv-2

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)

70068	Date 2 4 MAY 2013
	Environmental Conservation, hereby, issues this nmental Impact Assessment Procedure, Notification
16/2015.	
ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်	ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၆၁၆/၂၀၁၅ အရ
	(100112
Name of Organization	Myanwei Consulting Co., Ltd.
(အဖွဲ့ အစည်းအမည်)	
Name of the representative in the	U Nyan Lynn Aung
organization	
(အဖွဲ့ အစည်းကိုယ်စားလှယ်၏အမည်)	
Citizenship of the representative in the	Myanmar
organization	
(အဖွဲ့ အစည်းကိုယ်စားလှယ်၏နိုင်ငံသား)	
Identity Card /Passport Number of the	12/Sakhana(N)056196
representative person in the organization	1
(အဖွဲ့ အစည်းကိုယ်စားလှယ်၏ မှတ်ပုံတင်/	
နိုင်ငံကူးလက်မှတ် အမှတ်)	
Address of organization	No. 28, Myay nu street, Sanchaung Township,
(ဆက်သွယ်ရန်လိပ်စာ)	Yangon, Myanmar.
	Mobile phone: 09440251888
	E mail: ceo@myanweiconsulting.com
Type of Consultancy	Organization
(အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Copy or Glasses
Duration of validity	31 December 2019
(သက်တမ်းကုန်ဆုံးရက်)	
	ပို့ ပို့ ပို့ ပို့ ပို့ ပို့ ပို့ ပို့
	ලි දිංගිදුනු දිංගිදුන
	7)
	Director General
	Ministry of Natural Resources and icate to the organization under Environ 16/2015. ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ် ဘောနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းပေးလိုက်သည်။) Name of Organization (အဖွဲ့ အစည်းအမည်) Name of the representative in the organization (အဖွဲ့ အစည်းကိုယ်စားလှယ်၏အမည်) Citizenship of the representative in the organization (အဖွဲ့ အစည်းကိုယ်စားလှယ်၏နိုင်ငံသား) Identity Card /Passport Number of the representative person in the organization (အဖွဲ့ အစည်းကိုယ်စားလှယ်၏ မှတ်ပုံတင်/ နိုင်ငံကူးလက်မှတ် အမှတ်) Address of organization (ဆက်သွယ်ရန်လိပ်စာ) Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား) Duration of validity

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



EXTENSION သက်တစ်းတိုးမြှင့်ခြင်း The VALIDITY of this certificate is extended for one year from (1.1.2020) to (31.12.2020) ဤလက်မှတ်အား(၁-၁-၂၀၂၀) ရက်နေ့မှ (၃၀-၁၂-၂၀၂၀) ရက်နေ့အထိတစ်နှစ်သွက်တစ်းတိုးမြှင့်သည်။ For Director General (Soe Naing, Director) Environmental Conservation Department

EXTENSION သက်တမ်းတိုးမြှင့်ခြင်း The VALIDITY of this certificate is extended for six month from (1.1.2021) to (30.6.2021) ဤလက်မှတ်အား(၁-၁-၂၀၂၁) ရက်နေမှ (၃၀-၆-၂၀၂၁) ရက်နေအထိ (၆)လူသက်တမ်းတိုးမြှင့်သည်။ For Director General (Soe Naing, Director) Environmental Conservation Department

EXTENSION သက်တမ်းတိုးမြှင့်ခြင်း The VALIDITY of this certificate is extended for six months from (1.7.2021) to (31.12.2021) ဤလက်မှတ်အား(၁-၇-၂၀၂၁) ရက်နေမှ (၃၀-၁၂-၂၀၂၁) ရက်နေအထိ (၆)လညက်တမ်းတိုးမြှင့်သည်။ မောင်ကောင် General (Soe Naing, Director) Environmental Conservation Department



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 သယံဧာတနှင့် 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 Total Business Solution Co., Ltd.

(e) Organization (အဖွဲ့အစည်း)

(f)

Type of Consultancy

(အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)

(g) Duration of validity(သက်တမ်းကုန်ဆုံးရက်)

Person

31 March 2018

45.0. 1000

Director General
Environmental Conservation Department
Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted (ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Geology and Soil

EXTENSION သက်တမ်းတိုးမြှင့်ခြင်း The VALIDITY of this certificate is extended for six month from (1.1.2021) to (30.6.2021) ကိုလက်မှတ်အား(၁-၁-၂၀၂၁) ရက်နေ့မှ (၃၀-၆-၂၀၂၁) ရက်နေ့အထိ (၆) သည်ကို မေးပုံးမြှင့်သည်။ For Director General (Soe Naing, Director) Environmental Conservation Department

EXTENSION

ανόσδιοβιβέβδι

The VALIDITY of this certificate is extended for nine months from (1.4.2019) to (31.12.2019)

σωνοβοροποίος (2.0.3.1000)

σωνοβοροποίος (2.0.3.1000)

For Director General (Soe Naing, Director)

Environmental Conservation Department

EXTENSION သက်တစ်းတိုးမြှင့်ခြင်း The VALIDITY of this certificate is extended for one year from (1.1.2020) to (31.12.2020) ဤလက်မှတ်အား(၁-၁-၂၀၂၀) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀) ရက်နေ့အထိ တစ်နှစ်သက်တစ်းတိုးမြှင့်သည်။ For Director General (Soe Naing, Director) Environmental Conservation Department

APPENDIX C Mornitoring Result

Light Result



Plot No. (36, 38), Room No. 94, 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: Myanmar GF Company Limited

Project Plot No. 95, Myay Taing Block No. 42, Industrial area, Shwe Pyi

Location: Thar Township, Yangon Region

Sampling 31 October 2019

Date:

Sampling 1:00 pm to 4:00 pm

Time:

Sampling Good

Condition:

Sampling By: Environmental Team Represented By Myanwei Environmental

Solutions Company Limited

Instrument	Туре	Sampling Rate	Location
Uni-T (Luminometer)	UT380 Series	100 times/second	16°57'1.13"N 96°5'47.80"E

No	Measure area	Unit	Result	Standard	Remark
1	QC (1)	Lux	1528	1500	Above
2	QC (2)	Lux	1865	1500	Above
3	Poly area (1)	Lux	1646	1500	Above
4	Poly area (2)	Lux	1568	1500	Above
5	Needle pass	Lux	561	600	Below
6	Ware house	Lux	370	600	Below

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.



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: Myanmar GF Company Limited

Plot No. 95, Myay Taing Block No. 42, Industrial area, Shwe Pyi Thar Township, Yangon Region Project

Location:

31 October 2019 Sampling

Date:

Sampling 1:00 am to 4:00 pm

Time:

Sampling Good

Condition:

Sampling By: Environmental Team Represented By Myanwei Environmental

Solutions Company Limited

Instrument	Туре	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30 -130 dB	16°57'1.13"N 96° 5'47.80"E

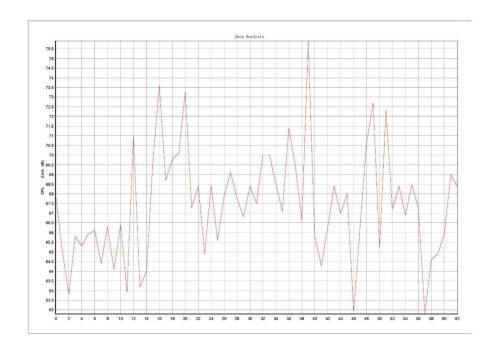
No	Place	Unit	Result	Standard	Remark
1	Operation Area	dBA	67.44	70 dBA	Good

National Environmental Quality (Emission) Guideline

	One Hour Laeq (dBA)	Guideline value
Receptor	Daytime	Nighttime
Receptor	7:00 – 22:00 (10:00 –	22:00 - 07:00 (22:00 -
	22:00 for Public holidays)	10:00 for Public holidays)
Residential, Institutional,	55	45
Educational		
Industrial, Commercial	70	70

LIN HTET SEIN DIRECTOR MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED.

Monitoring Graph





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) 1526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name: Myanmar GF Company Limited

Plot No.(95), Myay Taing Block No.42, Sethmu $3^{\rm rd}$ Street, Shwe Pyi Thar Industrial Zone-1, Shwe Pyi Thar Township, Yangon Region. Project

Location:

Sampling 31 October, 2019

Date:

11:00 am to 4:00 pm Sampling

Time:

Sampling Moderate

Condition:

Sampling By: Environmental Team Represented by Myanwei Consulting Group

Company Limited

Instrument	Туре	Sampling Rate	Location
MYANWEI-	Environmental	1 second to 21	Operation Area
AQM-09	Parimeter Air Station	weeks	(Indoor/Outdoor)

National Environmental Quality (Emission) Guideline

Parameter /	Averaging period	Guideline value	Unit
PM 10b	24-hour	20 50	(µg/M ³)
PM 2.5b	24-hour	10 25	(µg/M ³)
NH3	52		
CO	42	1201	
NO2	1-hour	40 200	
SO2	10 minute	20 500	
VOC	×=	2/20/50/75/100/1 150 c,d	mg/Nm ³

Particulate matter 10 micrometer or less in diameter
 Particulate matter 2.5 micrometer or less in diameter

Monitoring Result

Parameters	Observed value	Guideline value	Unit	Organization	Period
•	Inde	oor Air Quality	Monitori	ng	
PM ₁₀	46.2	50	μg/m³	NEQG	24 hrs
PM _{2.5}	22.8	25	μg/m³	NEQG	24 hrs
	Outo	loor Air Quality	Monitor	ing	
PM ₁₀	48.8	50	μg/m³	NEQG	24 hrs
PM _{2.5}	26.1	25	μg/m ³	NEQG	24 hrs

Parameters	Observed value	Guideline value	Unit	Organization	Period
PM _{2.5}	26.1	25	μg/m³	NEQG	24 hrs
O ₃	81.8	100	μg/m ³	NEQG	8 hrs
NO ₂	51.9	200	μg/m³	NEQG	1 hr
SO ₂	40.9	500	μg/m³	NEQG	10 mins
СО	0	10	μg/m ³	NEQG	8 hrs





APPENDIX D Power Point Presentation Slides

MYANMAR GF CO., LTD ၏ အပတ်အထည်အရည်အသွေးဆန်းစစ်ခြင်းနှင့်ထုတ်ပိုးခြင်းလုပ်ငန်း

ပတ်ဂန်းကျင်စီမံခန့်ခွဲမှု အစီရင်ခံစာ (မူကြမ်း) အတွက် သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးပွဲ အခမ်းအနား။

> နိုပင်ဘာလ၊ ၂၀၁၉ ခုနှစ်။ Preparaed By Myanwei Environmental Solutions Co., Ltd

အစည်းအပေး အကြောင်းအရာ

- ၁။ MYANMAR GF CO., LTD အား မိတ်ဆက်ခြင်း။

 ၂။ ပတ်ပန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား မိတ်ဆက်ခြင်း။

 ၃။ သက်ရောက်မှုဆန်းစစ်ခြင်း ရလဒ်များနှင့်ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ။

 ၄။ ပတ်ပန်းကျင်အပေါ် သက်ရောက်မှုများနှင့် ဖြေလျှော့ရေးနည်းလမ်းများ။

 ၅။ ပတ်ပန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် နှင့်
- ၆။ စက်ရုံ၏ဆောင်ရွက်ချက်များ။

MYANMAR GF CO., LTD စက်ရုံပြင်ပအဆောက်အုံပုံစံ



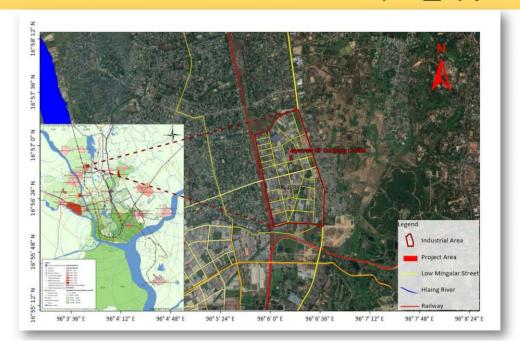
MYANMAR GF CO., LTD				
လုပ်ငန်းအမျိုးအစား	အပတ်အထည်အရည်အသွေးဆန်းစစ်ခြင်းနှင့်ထုတ်ပိုးခြင်းလုပ်ငန်း။			
ခွင့်ပြုမိန့်အမှတ်	(ခွင့်ပြုမိန့်အမှတ်- ၆၈၂/၂၀၁၄)၂၀၁၄ခုနှစ် ၊မတ်လ၊ ၇ ရက်။			
ရင်းနှီးမြှပ်နှံမှု	ဖက်စပ် နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု။			
မြေဧရိယာ	မြေဧရိယာစုစုပေါင်း - ၁.၃၄၇ ဧက			
အဆောက်အုံ	သုံးထပ်စက်ရုံအဆောက်အဦး ၁ လုံး။			
ရင်းနှီးမြုပ်နှံသည့်ကာလ	၁ဂနစ် ရင်းနှီးမြှုပ်နှံမှု။			
စက်ရုံလိပ်စာ	မြေကွက်အမှတ်-၉၅၊မြေတိုင်းရပ်ကွက်အမှတ်- ၄၂၊စက်မှုဒေသ၊ရွှေပြည်သာမြို့နယ်၊ရန်ကုန်တိုင်းဒေသကြီး။			

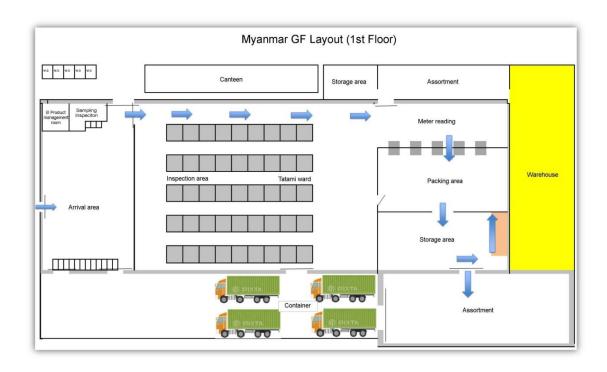
လုပ်ငန်းလည်ပတ်ရန်အခြေခံလိုအပ်ချက်များ ရေအသုံးပြုမှုအခြေအနေ ရေအရင်းအမြစ် အဝီစိတွင်းရေ (၁ တွင်း)

အဓိကလိုအပ်ချက်

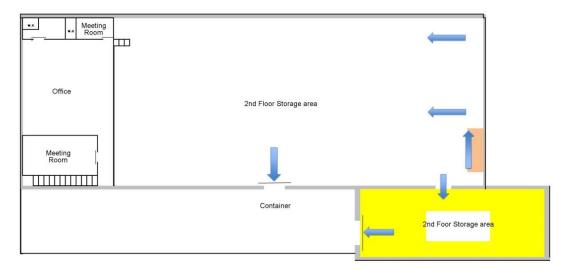
ခန့်အပ်မည့်လုပ်သားဦးရေ ၃၆ဂ ဦး

MYANMAR GF CO., LTD ၏စီမံကိန်း တည်နေရာ

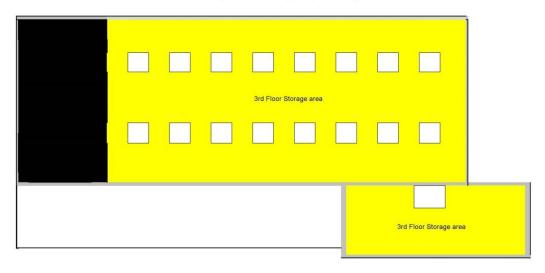


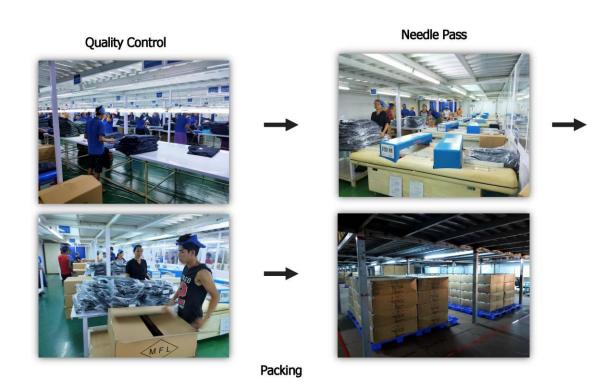


Myanmar GF Layout (2nd Floor)



Myanmar GF Layout (3rd Floor)





MYANMAR GF CO., LTD ထုတ်ကုန်များ





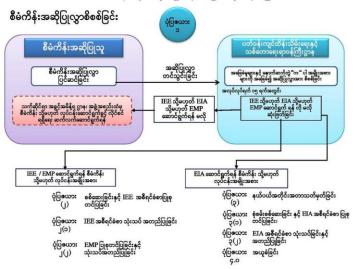


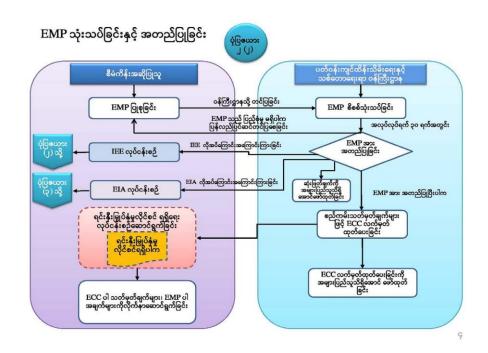


ပတ်()န်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား မိတ်ဆက်ခြင်း

ပတ်ဂန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ပြုလုပ်ခြင်း

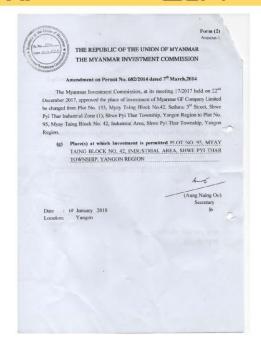
ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းလုပ်ငန်းစဉ်





ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီအတည်ပြုမိန့်





သက်ရောက်မှုဆန်းစစ်ြင်းရလဒ်များနှင့် ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ

စီမံကိန်းပတ်ပန်းကျင်အနေအထား

စဉ်	အကြောင်းအရာ	ဖော်ပြချက်
ЭШ	ကိုဩဒိနိတ်အမှတ်	မြောက်လတ္တီကျု ၁၆°၅၇′၁.၁၃" နှင့်အရှေ့လောင်ဂျီကျု ၉၆°၅′၄၇.၈ပ"
اال	ရာသီဥတုအခြေအနေ	ရွှေပြည်သာမြို့နယ်၏ နှစ်စဉ်ပျမ်းမှျအမြင့်ဆုံးအပူချိန် ၃၈°C၊
		အနိမ့်ဆုံးအပူအရိုန် ၃ဂ°C
511	စက်ရုံနေရာတွင်မြေအသုံးချမှု	စက်မှုလုပ်ငန်းနှင့်သက်ဆိုင်သောမြေအသုံးချမှုပုံစံ (စက်မှုဇုန်)
911	လမ်းပန်းဆက်သွယ်ရေး	အောက်မင်္ဂလာဒုံလမ်းမကြီး
၅။	အနီးဆုံးရေအရင်းအမြစ်	လှိုင်မြစ် နှင့်လှော်ကားကန်
Gii	သစ်တောဧရိယာ	မရှိ
၇။	ကန့်သတ်ကာကွယ်ထားသော ဧရိယာ	မရှိ
ଶା	တိုင်းတာမှုရလဒ်	🗖 ဆူညံသံ တိုင်းတာခြင်း
		🗖 လေထုအရည်အသွေး တိုင်းတာခြင်း
		🗖 အပူချိန် နှင့် စိုထိုင်းမူ အရည်အသွေး တိုင်းတာခြင်း
		🗖 ရေအရည်အသွေး

<u>ဆူညံသံတိုင်းတာမှု</u>

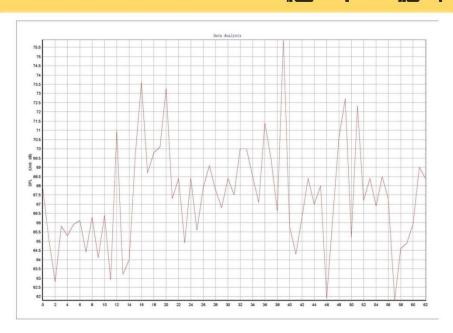
Date & Time	Location	GPS Location	Noise Result	NEQ Guideline
31.October. 2019	Operation Area	16°53'23.16"N 96°9'21.87"E	67.44 dBA	70 dBA

အထက်ဖော်ပြပါ ဆူညံသံတိုင်းတာမှုရလဒ်များအရ MYANMAR GF CO., LTD ၏ဆူညံသံများမှာ National Emission Quality Guideline အတွင်းတည်ရှိနေသည်ကို ဆန်းစစ်တွေ့ ရှိရပါသည်။





MYANMAR GF CO., LTD ၏ဆူညံသံတိုင်းတာမှုပြဂရပ်



လေထုတိုင်းတာမှု

Parameters(Outdoor)	Observed Value	Guideline Value	Unit	Organization	Period
PM10	48.8	50	μg/m³	NEQG	24 hrs
PM2.5	26.1	25	μg/m³	NEQG	24 hrs
SO ₂	40.9	500	μg/m³	NEQG	10 minutes
NO ₂	51.9	200	μg/m³	NEQG	1 hour
O3	81.8	100	μg/m³	NEQG	8 hours
со	0	10	μg/m³	-	8 hours
Parameters(Indoor)	Observed Value	Guideline Value	Unit	Organization	Period
PM10	46.2	50	μg/m³	NEQG	24 hrs
PM2.5	22.8	25	μg/m³	NEQG	24 hrs



လေထုတိုင်းတာမှုပုံရိပ်များ



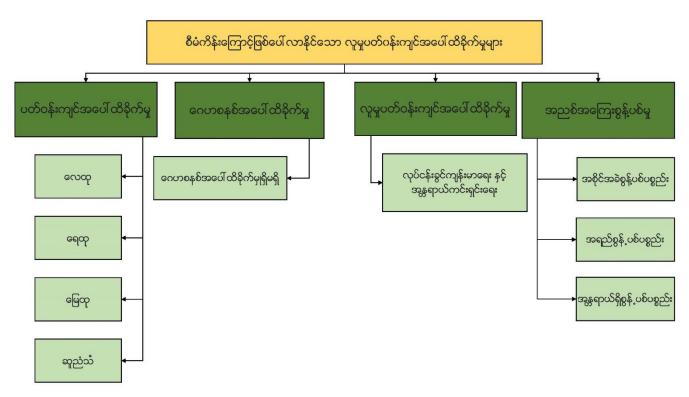
အလင်းရောင်တိုင်းတာမှု

No.	Location	Measure value (Lux)	Standard*	Remark
1.	QC (1)	1528	2000	Normal
2.	QC (2)	1865	2000	Above
3.	Poly area (1)	1646	2000	Above
4.	Poly area (2)	1568	2000	Above
5.	Needle pass	561	600	Above
6.	Ware house	370	600	Normal



စက်ရုံအတွင်းအလင်းရောင်တိုင်းတာမှုပုံရိပ်မျာ

ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများနှင့် ဖြေလျှော့ရေးနည်းလမ်းများ



သက်ရောက်မှု	စီမံကိန်းဆောင်ရွက်ချက်	လျော့နည်းစစရန် အရေးယူဆောင်ရွက်မှ
စီမံကိန်းလည်ပတ်ချိန်		
လေထု	မီးစက်၊မော်တော်ယာဉ်များမှ မီးခိုးများထွက်ခြင်း။	မီးစက် အတွက် မီးခိုး ခေါင်းတိုင်အသုံးပြုစေခြင်း၊ မော်တော်ယာဉ်၊ မီးစက်များကို ပုံမှန် စစ်ဆေးခြင်း။
ရာညံသံ	မီးစက် နှင့် မော်တော်ယာဉ် အသုံးပြုမှုတို့ကြောင့် ပတ်ဂန်းကျင်အပေါ် ဆူညံမှု	ဆူညံသံထွက်သောနေရာများကို အကာကွယ်ဖြင့် ထားရှိခြင်း။ စက်ရုံပန်ထမ်းများကို PPEအပြည့်အစုံထောက်ပံ့ပေးခြင်း။
ී ංගා:	ကုန်ကြမ်းသိုလှောင်မှု နှင့် လျှပ်စစ်သုံးစွဲ ပေါ့လျော့မှု	ကုန်ကြမ်းများအား သီးသန့်ထားရှိခြင်း။ လျှပ်စစ်သုံးစွဲမှုများအား စနစ်တကျ အသုံးပြုစေခြင်း။
ကျန်းမာရေးစောင့်ရှောက်မှု	လုပ်ငန်းလည်ပတ်ခြင်းကြောင့် မတော်တဆထိခိုက်မှုဖြစ်ပေါ်ခြင်း။	အရေးပေါ် အခြေအနေများအတွက် ပစ္စည်းကိုင်တွယ်မှု သင်တန်းပေးခြင်း။ တစ်ကိုယ်ရေသုံးအကာကွယ်ပစ္စည်းများအသုံးပြုစေခြင်း။
စွန့်ပစ်ပစ္စည်း (အစိုင်အခဲ၊ အရည်)	ထုတ်လုပ်ရာတွင်ကျန်ရှိသော ချည်မှျင်အဝိုင်းအစများ၊ နေအိမ်၊ စားသောက်ဆောင် တို့မှစွန့်ထုတ်ရေ။ မိလ္လာကန်စနစ်	စွန်ပစ်အမှိုက်များအား ပြန်လည်သုံးစွဲရန် နှင့် စွန့်ပစ်ရန် အဖြစ်သတ်မှတ်ဝီး သီးခြားစွန့်ပစ်စေခြင်း။ စွန့်ပစ်အရည်များအားသီးခြားရေနှုတ်မြောင်းများဖြင့်စွန့်ပစ်ခြင်း။
အွန္တရာယ်ရှိစွန့် ပစ်ပစ္စည်းများ	စက်များမှဆီယိုစိမ့်မှုများ၊ပိတ်စများ၊ တစ်ခြားမီးလောင်လွယ်သောအမှိုက်များ	စက်သုံးဆီများအားစနစ်တကျ အသုံးပြုစေခြင်း၊ စနစ်တကျသိုလှောင်ခြင်း နှင့် အွန္တရာယ်ရှိပစ္စည်းများအား စနစ်တကျထားရှိစေခြင်း။

သက်ရောက်မှု	စီမံကိန်းဆောင်ရွက်ချက်	လျော့နည်းစေရန် အရေးယူဆောင်ရွက်မှု
စီမံကိန်းပိတ်သိမ်းချိန်		
လေထု	အဆောက်အဦးဖြိုချမှု၊ သယ်ယူမှုများ	လျှော့ချရန်မလိုပါ။
ရေထု	မြေပေါ် မြေအောက်အပေါ် သက်ရောက်မှုမရှိနိုင်ပါ	လျှော့ချရန်မလိုပါ။
ရာညံသံ	ဆူညံသံများမဖြစ်ပေါ် နိုင်ပါ။	လျှော့ချရန်မလိုပါ။
လုပ်ငန်းရွင် ဘေးအွန္တရာယ်	လုပ်ငန်းခွင်ဖျက်သိမ်းချိန်တွင် မတော်တဆမှုများဖြစ်ပေါ် နိုင်ခြင်း။	လုပ်သားများကို တစ်ကိုယ်ရေသုံးအကာကွယ်ပစ္စည်းများ အသုံးပြုစေခြင်း။
စွန့်ပစ်ပစ္စည်း (အစိုင်အရဲ၊ အရည်)	စီမံကိန်းဖျက်သိမ်းရာမှ တည်ဆောက်ရေး ပစ္စည်း အကျိုးအပဲများထွက်ခြင်း၊ ကျန်ရှိနေသော မိလ္လာကန်များ၊	အရိုက်များကို မြို့တော် စည်ပင်သာယာရေး ကော်မတိနှင့် ရိုတ်ဆက်၍ စွန့်ပစ်ခြင်း။
အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်း	စက်ဆီ၊ ဒီဇယ်ပုံးအခွံများ	ဓာတုပစ္စည်းထည့်ထားသော ပုံးခွံများ၊ ဒီဇယ်ပုံ းအခွံများကိုဆေးကြော၍ ပြန်လည်အသုံးပြုခြင်း၊ စနစ်တကျစွန့်ပစ်ခြင်း။

ပတ်ပန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်

လေထုညစ်ညမ်းမှုလျှော့ချရေး

ရည်ရွယ်ချက်	စီမံကိန်းကြောင့် စက်ရုံမှ ထွက်သော ဓာတ်ငွေများနှင့် မီးစက်များမှ ထွက်ရှိသော ဓာတ်ငွေများကြောင့် လေထုညစ်ညမ်းမှုကို လျှော့ချရန်
လိုက်နာရမည့် စည်းကမ်း	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှ အစီအစဉ်	 စက်ရုံအတွင်းနှင့် အနီးပတ်ဝန်းကျင်တွင် သစ်ပင်ပန်းမန်စိုက်ပျိုးခြင်း စက်ရုံအတွင်း မည်သည့်စွန့်ပစ်ပစ္စည်းများအား မီးရှို့ဖျက်စီးခြင်း မပြုလုပ်ခြင်း လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ်သော အကာအကွယ်ပစ္စည်းများဖြစ်သည့် လေကာ/နေကာမျက်မှန်များ၊ နာခေါင်းစည်း၊ စသည်တို့အားထောက်ပံ့ခြင်း၊ အသိပညာပေး သင်တန်းများ ပေးခြင်း
တာဝန်ယူရမည့် ပုဂ္ဂိုလ်	ပြုပြင်ထိန်းသိမ်းရေးအရာရှိ - လေထှညစ်ညမ်းမှုလျော့ချရေးနည်းလမ်းများ ထုတ်လုပ်ရေးမန်နေဂျာ - လုပ်ငန်းခွင်လေထုသန့်ရှင်းရေး မန်နေဂျာ - ပတ်ဝန်းကျင်လေအရည်အသွေးတိုင်းတာရန် (ThirdParty) ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်

ဆူညံသံလျှော့ချရေး

ရည်ရွယ်ချက်	ဘေးပတ်ဝန်းကျင်ဆူညံမှုမဖြစ်ပေါ် စေရန် နှင့် စက်ရုံရှိ မီးစက်နှင့် အရြားစက်ပစ္စည်းများ ကြောင့် လုပ်သားများအပေါ် ထိခိုက်မှု လျှော့ချရန်
လိုက်နာရမည့် စည်းကမ်း	- ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) - အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	 မီးစက်၊လေမှုတ်စက်တို့ကို ဆူညံသံထိန်းချုပ်နိုင်သော အခန်းဖွဲ့စည်းမှုပုံစံ တည်ဆောက် ထားခြင်း လုပ်ငန်းသုံးယာဉ်များကိုဆူညံသံလျှော့ချရန်သတ်မှတ်အရှိန်ထက်ကျော်လွန်မမောင်းစေြ ခင်း လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ် သော အကာအကွယ်ပစ္စည်းများဖြစ်သည့် နားအကာကွယ်ပစ္စည်းများ ထောက်ပံ့ခြင်း၊ အသိပညာပေး သင်တန်းများ ပေးခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - ဆူညံသံတိုင်းတာရန် (ThirdParty)ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်

အစိုင်အခဲစွန့်ပစ်မှု ထိန်းသိမ်းရေး

ရည်ရွယ်ချက်	စွန့်ပစ်အမှိုက်ထွက်ရှိမှုလျှော့ချရေးနှင့် စွန့်ပစ်အမှိုက်ကြောင့် ပတ်ဝန်းကျင်ညစ်ညမ်းမှုကို လျှော့ချရန်
လိုက်နာရမည့်စည်းကမ်း	 ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅)
	 National Waste Management Strategy and Action Plan (Draft 2018)
စီမံခန့်ခွဲမှုအစီအစဉ်	• စက်ရုံမှထွက်သော မည်သည့်စွန့်ပစ်ပစ္စည်းမှ မြစ်၊ ချောင်း၊ အင်း၊ အိုင် အတွင်းသို့ မစွန့်ပစ်ရ
	🔹 စက်ရုံတွင် စွန့်ပစ်ပစ္စည်းများကို ပြန်လည်အသုံးပြုနိုင်သောပစ္စည်း(ဆိုးဆေး၊ စက္ကူဇာ၊ ပလက်စတစ်၊
	စသည်ဖြင့်) များကို ပြည်တွင်းဝယ်ယူသူများထံ ပြန်လည်ရောင်းချခြင်း
	 စွန့်ပစ်ရန်ပစ္စည်း(လုပ်သားများမှစွန့်ပစ်ပစ္စည်းနှင့်မီးဖိုချောင်ထွက်ပစ္စည်းများ)ကို
	မြို့တော်စည်ပင်သာယာရေးအဖွဲ့အစည်း ကို နေ့စဉ်ခေါ် ယူပြီး သိမ်းဆည်းစေရြင်း
	🔹 အန္တရာယ်ရှိပစ္စည်း (စက်ဆီအဟောင်းများ၊ လျှပ်စစ်ပစ္စည်းအပျက်များ၊ သံထည်ပစ္စည်း) များကို
	ဝယ်ယူသူထံမှပြန်လည် သိမ်းဆည်းစေရြင်း
	 စက်ရုံတွင် အမှိုက်စွန့်ပစ်ရန် အတွက် အမှိုက်ပုံးများကို စီမံထားခြင်း
	 စက်ရုံဝန်းထမ်းအားလုံးကို စနစ်တကျ အမှိုက်စွန့်ပစ်ရန် တိုက်တွန်းနိုးဆော်ထားခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	 မန်နေဂျာ - စက်ရုံအတွင်းသန့်ရှင်းရေးအတွက်စီမံခန့်ခွဲရန်တာဝန်ရှိသည်
	 အမှိုက်စွန့်ပစ်မှု ပုံမှန်ပြုလုပ်ရန်နှင့် စွန့်ပစ်ပစ္စည်းသယ်ယူသူများကို ပုံမှန်ပြုလုပ်ရန် တာဝန်ယူဆောက်ရွက်ရန်

စွန့်ပစ်အရည် ထိန်းသိမ်းရေး

ရည်ရွယ်ချက်	မြေပေါ် ရေနှင့် မြေအောက်ရေ ညစ်ညမ်းမှုမဖြစ်စေရေး
လိုက်နာရမည့်စည်းကမ်း	 ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	• စက်ရုံရေမြောင်းများနှင့်မိလ္လာစနစ်ကို စနစ်တကျ သန့်ရှင်းအောင်ထားရှိခြင်း လုံလောက်သည့်အတိုင်းအတာ ပမာကာရှိခြင်း
	 မိလ္လာစနစ်ကို ပုံမှန်စစ်ဆေးပြီး လိုအပ်သကဲ့သို့ ထိန်းသိမ်းပြုပြင်ခြင်း
	 စက်ရုံရေမြောင်းအတွင်းတွင် ပိတ်ဆို့မှုမရှိစေရန်နှင့်
	အနံ့ဆိုးများမထွက်စေရန်စီမံခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - စွန့်ထုတ်ရေအရည်အသွေးတိုင်းတာရန် (ThirdParty) ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်

စွမ်းအင်သုံးစွဲမှု ထိန်းသိမ်းရေး

ရည်ရွယ်ချက်	လျှပ်စစ်သုံးစွဲမှုလျှော့ချစေရန်နှင့် လုပ်ငန်းခွင်အတွင်း လျှပ်စစ်သုံးစွဲမှုကြောင့် အန္တရာယ်မရှိစေရန်
စီမံခန့်ခွဲမှုအစီအစဉ်	 စက်ရုံတွင်း လှုုပ်စစ်သုံးစွဲမှုများအတွက် စွမ်းအင်လျှော့ချနိုင်သည့် စက်ကရိယာများတပ်ဆင်ခြင်း အသုံးမပြုလှုုင် စက်ကရိယာများပိတ်ဆင်ထားခြင်း စွမ်းအင်အသုံးနည်းသော Lighting စနစ်တပ်ဆင်ခြင်း စက်ပစ္စည်းနှင့် Lighting အသုံးပြုမှုကို စောင့်ကြည့်ထိန်သိမ်းရေးစနစ်ထားရှိခြင်း (ဥပမာ-အသုံးမပြုပဲမီးဖွင့်ထားခြင်း၊ စက်ဖွင့်ထားခြင်းမျိုး မရှိစေရန်)
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ

မြေအောက်ရေသုံးစွဲမှု

ရည်ရွယ်ချက်	ရေသုံးစွဲမှုလျှော့ချရေး
လိုက်နာရမည့်စည်းကမ်း	The Underground Water Act (1930)
စီမံခန့်ခွဲမှုအစီအစဉ်	 ရေအသုံးပြုမှု သိရှိနိုင်သော မီတာတပ်ဆင်ခြင်း ဝန်ထမ်းများအားအသိပညာပေးခြင်းနှင့် လိုက်နာဆောင်ရွက်ရန် တိုက်တွန်းခြင်း စက်ရုံရှိတာလန်ရှိပုဂ္ဂိုလ်များအား (Third Party) နေဖြင့်မြေအောက်ရေအကျိုးရှိရှိအသုံးချရန်စည်းကမ်းချက်နဲ့အညီ
	လမ်းညွှန်ထားရြင်း။
တာဝန်ယူရမည့် ပုဂ္ဂိုလ်	မန်နေဂျာ
	• ရေ အသုံးပြုမှုစာရင်း စစ်ဆေးခြင်း
	• ဝန်ထမ်းများလိုက်နာဆောင်ရွက်မှု စစ်ဆေးခြင်း

အရေးပေါ် အခြေအနေတုန့်ပြန်မှု

ရည်ရွယ်ချက်	စက်ရုံတွင်းမတော်တဆထိခိုက်မှု လျှော့ချရေး
လိုက်နာရမည့်စည်းကမ်း	အလုပ်အကိုင်နှင့် ကျွမ်းကျင်မှုဖွံ့ဖြိုးတိုးတက်ရေးဥပဒေ (၂၀၁၃), ILO guide to Myanmar
	Labour Law (2017)
စီမံခန့်ခွဲမှုအစီအစဉ်	
	 စက်ရုံ၏မီးသတ်စနစ်များကို ပုံမှန်စစ်ဆေးခြင်း ရေးဆွဲထားသော အရေးပေါ် တုန့်ပြန်ရေး အစီအစဉ်များကို ဝန်ထမ်းများ အကျွမ်းတဝင်ဖြစ်စေရန် စီမံထားခြင်း
	• လောင်စာသိုလှောင်နေရာများ၊ လျှပ်စစ်ဖြန့်ဖြူးရေးနေရာများကို အဓိကထားပြီး စောင့်ကြည့်စစ်ဆေးခြင်း၊ ပြုပြင်မွန်းမံခြင်း
	• ပုံမှန်မီးဘေးကာကွယ်ရေး၊ င်လျင်လှပ်ခတ်လျှင် ပြုလုပ်ရမည့်ပုံစံများ၊ ရေကြီးရေလျှုံမှု အခြေအနေထိန်းသိမ်းရေး အစီအစဉ်များ၊ ရှေးဦးပြုစုခြင်းသင်တန်းများကို ပုံမှန်လေ့ကျင့်မှုများ သင်ကြားမှုများ ပြုလုပ်ခြင်း
	စက်ရုံတွင်း မီးသတ်အဖွဲ့ ငယ်၊ အန္တရာယ်ကင်းရှင်းရေး စောင့်ကြည့်ရေးအဖွဲ့ငယ်များထားရှိပြီး လစဉ် ဆွေးနွေးတိုင်ပင်ခြင်း ၊လေ့ကျင့်ခြင်းများ ပြုလုပ်ခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	Manager and EHS officer မီးသတ်သင်တန်းများ ၃ လတစ်ကြိမ်ပြုလုပ်ရန်စီမံပေးခြင်း

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု

ကက္က	အမျိုးအစား	ကြိမ်နှန်း	နေရာ	တာပန်ရှိသူ
စီမံကိန်းတည်ဆောက်နေစဉ်				
လေထု	SO2, NO2, CO, CO2, PM2.5, PM10	တစ်ကြိမ် (တည်ဆောက်နေစဉ်အတွင်း)	စီမံကိန်းဧရိယာ	Environmental Management Team's Myanmar GF Co., Ltd and Third Party
ရေထု	pH, Apparent Colour, Turbidity, TDS, Total solids, Chloride, Free Cyanide, Nitrate, Arsenic, Cadmium, Copper, Iron, Lead and Zinc	တစ်ကြိမ် (တည်ဆောက်နေစဉ်အတွင်း)	အနီးဆုံး မြစ်၊ ချောင်း၊ မြေအောက်ရေ	Environmental Management Team's Myanmar GF Co., Ltd and Third Party
ရာညံသံ	dBA	တစ်ကြိမ် (တည်ဆောက်နေစဉ်အတွင်း)	စီမံကိန်းဖရိယာ	Environmental Management Team's Myanmar GF Co., Ltd and Third Party
ී ංගා:	မီးသွယ်တန်းမှု	တစ်လ တစ်ကြိမ်	စီမံကိန်းဖရိယာ	Environmental Management Team's Myanmar GF Co., Ltd and Third Party
လုပ်ငန်းခွင်ကျန်းမာရေး နှင့် လုခြုံမှု	မတော်တဆမှုများ၊ ဆောက်လုပ်ရေးလုပ်သားများအတွ က်တစ်ကိုယ်ရေသုံးကာကွယ်ပစ္စည် းများပေးခြင်း	တစ်လ တစ်ကြိမ်	ဆောက်လုပ်ရေး လုပ်သားများ	Environmental Management Team's Myanmar GF Co., Ltd and Third Party
အမှိုက်စွန့်ပစ်မှု	အစိုင်အခဲ ၊ အရည်	တစ်ပတ်တစ်ကြိမ်	စီမံကိန်းဖရိယာ	Environmental Management Team's Myanmar GF Co., Ltd and Third Party

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု

ကဏ္ဍ	အမျိုးအစား	ကြိမ်နှန်း	နေရာ	တာပန်ရှိသူ
စီမံကိန်းလည်ပတ်ရှိန်				
လေထု	PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂ ,	တစ်နှစ် ၂ကြိမ်	ထုပ်လုပ်မှု ဧရိယာအတွင်း	MYANMAR GF CO., LTD
ଡକ୍	အပူချိန်	နေ့စဉ်	ဘွိုင်လာမှထွက်သောရေ	MYANMAR GF CO., LTD
ဆူညံသံ	ဆူညံသံ ပမာက	တစ်ပတ် ၂ကြိမ်	၂ နေရာ (ထုပ်လုပ်မှု ဇရိယာ အတွင်း)	MYANMAR GF CO., LTD
အမှိုက်စွန့်ပစ်မှု	အစိုင်အခဲ၊ အရည် နှင့် အန္တရာယ်ရှိပစ္စည်း	အပတ်စဉ်	စက်ရုံအတွင်း ပြန်လည်အသုံးပြုရန်နှင့် စွန့်ပစ်ရန်ဟူ၍ အမှိုက်ပုံများအား ခွဲခြားခြင်း	MYANMAR GF CO., LTD
မီးဘေးအွန္တရာယ်	မီးသတ်ဆေးဘူးပစ္စည်းများနှင့်အရေး ပေါ် ဖုန်းနံပါတ်များ	လစဉ်	စက်ရုံဧရိယာ အတွင်း	MYANMAR GF CO., LTD
အလင်းရောင်ပြင်းပြမှု	အလင်းရောင်ပေးခြင်း	တစ်နှစ် ၂ကြိမ်	ထုတ်လုပ်မှု ဧရိယာအတွင်း (ပိတ်ဖတ်ခြင်း နှင့် အရည်အသွေး စစ်ဆေးခြင်း)	MYANMAR GF CO., LTD
လုပ်ငန်းဖြတ်သိမ်းခြင်းက	ာလ			
လေထု	PM2.5, PM10 , SO ₂ , NO ₂	ဖြတ်သိမ်းမှ ကာလအတွင်း ၁ကြိမ်	ထုပ်လုပ်မှု ဧရိယာအတွင်း	MYANMAR GF CO., LTD
ဆူညံသံ	ఖామ్రాపే రాటుగా	ထိုကာလအ တွင်း င	ဖြတ်သိမ်းမှု ဖရိယာ	MYANMAR GF CO., LTD
ပြန်လည်မွမ်းမံခြင်း	သစ်ပင်များပြန်လည်စိုက်ပျိုးခြင်း	J	ဖျက်သိမ်းမည့် ဧရိယာအားလုံး	MYANMAR GF CO., LTD

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု ခန့်မှန်းကုန်ကျစရိတ်

စဉ်	အကြောင်းအရာ	အကြိမ်အရေအတွက်	ကုန်ကျစရိတ် (အမေရိကန် ဒေါ်လာ)		
လျှော့ရ	လျှော့ချ်ခြင်းအစီအစဉ်				
Э.	စက်ရုံအတွင်းလေအဝင်အထွက်အစီအစဉ်	၁နစ် တကြိမ်	နှစ်စဉ် ဒေါ်လာ ၆၀၀		
J.	စက်ရုံဖရိယာအတွင်း သစ်ပင်များစိုက်ပျိုးခြင်း	၃လ တကြိမ်	၃လခြား ဒေါ်လာ ၇၀		
6.	အစိုင်အခဲအမှိုက်ပစ်ခြင်း	၁၂ ကြိမ်	နှစ်စဉ် ဒေါ်လာ ၄၀၀		
9.	တစ်ကိုယ်ရည်သုံး ကာကွယ်ရေးပစ္စည်းများဂယ်ယူခြင်း	၆ လ တကြိမ်	၆ လခြား ဒေါ်လာ ၁၃၄		
ე.	ဆေးပစ္စည်းများနှင့် ကျန်းမာရေးစစ်ဆေးခြင်း	၁ နှစ် တကြိမ်	နှစ်စဉ် ဒေါ်လာ ၅၃၄		
အရေးဖ	ပေါ် အစီအစဉ်				
Э.	မီးသတ်ဆေးဘူး	၁လ တကြိမ်			
J.	မီးသတ်အချက်ပြ စနစ်	၁လ တကြိမ်	လစဉ် ဒေါ်လာ ၆၀၀		
۶.	ရှေးဦးသူနာပြု ပစ္စည်းများ	၁လ တကြိမ်			
စောင့်ကြ <u>ပ်ကြည့်ရှ</u> ရေးအစီအစဉ်					
Э.	လေအရည်အသွေး	၂ ကြိမ်	၁နှစ် ဒေါ်လာ ၃၃၄		
J.	အလင်းရောင်ပြင်းအား	၂ ကြိမ်	၁နှစ် ဒေါ်လာ ၃၃၄		
۶.	စောင့်ကြပ်ကြည့်ရှမှု အစီရင်ခံစာ	၁ ကြိမ်	ဒေါ်လာ ၃၃၄		

လူမှုအကျိုးတူပူးပေါင်း ပါဝင်မှု

MYANMAR GF CO., LTD တွင် **CSR** အတွက် အမြတ်ငွေ၏ ၂% ကို ကျန်းမာရေး၊ ပညာရေးနှင့် နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေးတို့ အတွက် အသုံးပြုသွားမည် ဖြစ်ပါသည်။

ကျန်းမာရေး	ဝန်ထမ်းများ ကျန်းမာရေး စောင့်ရှောက်မှု	o. <u></u> 9 %
ပညာရေး	ပညာရေးကဏ္ဍ မြှင့်တင်ရေးနှင့် လူ့အခွင့်အရေး အသိပညာပေးခြင်း	ი.ე %
နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေး	ဒေသတွင်း လိုအပ်သကဲ့သို့ လှူဒါန်းခြင်း	၁ %

စက်ရုံ၏ဆောင်ရွက်ချက်များ









MYANMAR GF CO., LTD ()န်ထမ်းများအတွက်သောက်ရေသုံးရေပြင်ဆင်ထားရှိမှု





MYANMAR GF CO., LTD ၏ လျုပ်စစ်သုံးစွဲမှုအတွက်ပြင်ဆင်ထားရှိမှု









MYANMAR GF CO., LTD ၏ မီးဘေးအန္တာရာယ်တွက်ပြင်ဆင်ထားရှိမှုများ









စက်ရုံအတွင်းအမှိုက်စွန့်ပစ်မှုအခြေနေများနှင့်၊ ()န်ထမ်းများအတွက်အိမ်သာထားရှိမှုများ နှင့် ရေမြောင်းထားရှိမှုအခြေနေများ





ပန်ထမ်းများအတွက် ကျန်းမာရေးစောင့်ရှောက်ရေးခန်းများထားရှိမှု









MYANMAR GF CO., LTD ()န်ထမ်းများအတွက်သောက်ရေသုံးရေပြင်ဆင်ထားရှိမှု