

WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED

Initial Environmental Examination

MANUFACTURING OF SPORT SHOES ON (CMP BASIS)

Prepared by:



MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED

Date: 12-Aug-22



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Date: 5.8.2022

Attention: Dear Director

Environmental Conservation Department

Subject: Initial Environmental Examination (IEE) Report in respect of the Manufacturing of Sport Shoes by William (Myanmar) Industrial Company Limited.

IEE 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.



[Handwritten Signature]
LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED

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Date: 5.8.2022

Dear: Director
Environmental Conservation Department
Nay Pyi Taw

Subject: Initial Environmental Examination Report in respect of the Manufacturing of Sport Shoes

We refer to the captioned IEE 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 IEE report is accurate and complete
- The IEE report has been prepared in strict compliance with all applicable laws, rules, regulations and procedures in force.

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED will at all times comply fully with all commitment and obligations in the IEE report.

We acknowledge and understand that

CHAO LI PING

CHAO LI PING
DIRECTOR

WILLIAM (MYANMAR) INDUSTRIAL CO.,LTD.

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Lists of Abbreviation

1. CEMP	= Construction Environmental Management Plan
2. CSR	= Corporate Social Responsibility
3. EMP	= Environmental Management Plan
4. EIA	= Environmental Impact Assessment
5. ECD	= Environmental Conservation Department
6. ECC	= Environmental Compliance Certificate
7. EMoP	= Environmental Monitoring Plan
8. GIIP	= Good International Industry Practices
9. HSE	= Health, Safety and Environment
10. IEE	= Initial Environmental Examination
11. IFC	= International Finance Corporation
12. NEQG	= National Environmental Quality (Emission) Guidelines
13. MIC	= Myanmar Investment Commission
14. MOECAF	= Ministry of Environmental Conservation and Forestry
15. MONREC	= Ministry of Natural Resources and Environmental Conservation
16. OEMP	= Operation Environmental Management Plan
17. OSHA	= Occupational Safety and Health Administration
18. PPE	= Personal Protective Equipment
19. WHO	= World Health Organization
20. YCDC	= Yangon City Development Committee
21. YESB	= Yangon City Electricity Supply Board
22. YCDC	= Yangon City Development Committee
23. ENV Team	= Environmental Team
24. IND Team	= Industrial Solution Team
25. Sq meter	= Square meter
26. %	= Percentage
27. °C	= Degree Celsius
28. BOD	= Biochemical Oxygen Demand
29. COD	= Chemical Oxygen Demand
30. CO	= Carbon Monoxide
31. CO ₂	= Carbon Dioxide
32. NO ₂	= Nitrogen Dioxide
33. VOC	= Volatile Organic Compound
34. O ₃	= Ozone
35. dB (A)	= Decibel Unit
36. MT	= Metric Ton
37. Kt	= Kilo Ton
38. kWh	= Kilo Watt Hour
39. km	= Kilo Meter
40. PM	= Particulate Matter
41. ppm	= Part Per Million

အစီရင်ခံစာအကျဉ်းချုပ်

ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းဆိုင်ရာ အစီရင်ခံစာသည် WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED ၏ CMP စနစ်ဖြင့် အားကစားဖိနပ်ထုတ်လုပ်ခြင်းလုပ်ငန်းအတွက် ပြည်ပသို့ရာနှုန်းပြည့် တင်ပို့ခြင်း လုပ်ငန်းမှ ပတ်ဝန်းကျင်အပေါ်အဓိက ထိခိုက်မှု များကို လေ့လာဆန်းစစ်ပြီး လျော့ချရေး အစီအစဉ်များ၊ ကာကွယ်ထိန်းသိမ်းရေး အစီအစဉ်များကို အဓိပ္ပါယ်သတ်မှတ်ထားခြင်း ဖြစ်သည်။

WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED သည် မြေကွက်အမှတ် အေ-၈၊ မင်္ဂလာဒုံစက်မှုဇုန်၊ မင်္ဂလာဒုံမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင်တည်ရှိသော စုစုပေါင်း မြေဧရိယာ ၂.၅၀၂ ဧက (၁၀,၁၂၇ စတုရန်းမီတာ) ပေါ်တွင် အားကစားဖိနပ်များ ထုတ်လုပ်၍ ပြည်ပသို့ရာနှုန်းပြည့် တင်ပို့ခြင်းလုပ်ငန်းအား ရန်ကုန်တိုင်း ဒေသကြီးရင်းနှီးမြုပ်နှံမှု ကော်မတီ မှ ၂၀၁၄ ပြည့်နှစ်၊ မေလ ၂၈ ရက် (ခွင့်ပြုမိန့်အမှတ် ၇၃၀/၂၀၁၄) ဖြင့် ရရှိပြီးဖြစ်ပါသည်။ လုပ်ငန်းလည်ပတ်ရန်အတွက် မြန်မာနိုင်ငံ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဝန်ကြီးဌာန (MONREC) ၏ အတည်ပြုချက် ရ ယူရန်လိုအပ်ကြောင်း ကော်မရှင်မှ မှာကြားခဲ့ပါသည်။ ထို့ကြောင့် မြန်မာနိုင်ငံပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂)အရ၊ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း Initial Environmental Examination (IEE) ပြုလုပ်ရန် လိုအပ်ကြောင်း ၂၀၂၀ ပြည့်နှစ်၊ ဧပြီလ ၆ ရက် ရက်စွဲပါ စာအမှတ်၊ ရက-၁/၃/၄ (အီးအိုင်အေ) (၁၂၁၇/၂၀၂၀) ဖြင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာန ရန်ကုန်တိုင်းဒေသကြီးမှ သဘောထားမှတ်ချက် ရရှိပြီးဖြစ်ပါသည်။ ထို့ကြောင့် သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC) ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာန (ECD)၏ ထုတ်ပြန်ထားသော ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်း (EIA Procedure) ၂၀၁၅ အတိုင်း WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED သည် စက်ရုံအတွက် IEE အစီအရင်ခံစာ ရေးဆွဲခဲ့ပါသည်။ IEE အစီအရင်ခံစာရေးဆွဲရန် တတိယအဖွဲ့အစည်းဖြစ်သော MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED တာဝန်ယူရေးဆွဲခဲ့ပါသည်။ စက်ရုံတွင် ကျန်းမာရေး၊ ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အဖွဲ့အစည်းတစ်ခုထားရှိပြီး လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်များကို အကောင်အထည်ဖော်သွားမည်ဖြစ်သည်။

WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED စက်ရုံသည် ခန့်မှန်းခြေ အမေရိကန် ဒေါ်လာသန်း ၅.၉၁၅ သန်းခန့် ခွင့်ပြုမတည်ရင်းငွေဖြင့် အားကစားဖိနပ် ထုတ်လုပ်ခြင်း လုပ်ငန်းဖြစ်ပါသည်။ စက်ရုံသည် ၁၀၀% နိုင်ငံခြားသား ရင်းနှီးမြုပ်နှံမှုဖြင့် အကောင်အထည်ဖော် ဆောင်ရွက်လျက် ရှိပါသည်။ စက်ရုံအကျယ်အဝန်းမှာ ၂.၅၀၂ (၁၀,၁၂၇ စတုရန်းမီတာ) မြေပေါ်တွင် စက်ရုံတည်ဆောက်ပြီး အားကစားဖိနပ် ထုတ်လုပ်ခြင်းလုပ်ငန်း လုပ်ဆောင်ခြင်းဖြစ်ပါသည်။ ကနဦးရင်းနှီးမြုပ်နှံမှုကာလ(34)နှစ် ဖြင့် လုပ်ငန်း ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။ အဆောက်အအုံများမှာ (288.9'x131.3') ၃ထပ်ဆောင် တစ်ဆောင်၊ (88.6'x59.9') ၂ထပ် လူနေဆောင် ၂ဆောင်၊ (26.3'x58') ၁ထပ် ထမင်းစားဆောင် ၊ (34.6'x56.9') ထမင်းစားဆောင်၊ (40'x26.8') ၂ထပ် လူနေဆောင်၊ (32.9'x46') ၁ထပ် မီးစက်ခန်းတို့ဖြစ်ပါသည်။ အားကစားအဝတ်အထည်နှင့် အားကစားဖိနပ် ထုတ်လုပ်ခြင်းစက်ရုံအတွက် ပြည်တွင်း လုပ်သားဦးရေ ၂၂၄ ယောက်

နှင့် နိုင်ငံခြားသားပညာရှင် ၃ ဦး တို့ဖြင့် လည်ပတ်လျက်ရှိပါသည်။ လုပ်သားများအတွက် ကန်တင်းအား သီးသန့်နေရာထားရှိပြီး သက်ဆိုင်ရာ မီးစက်ခန်း၊ သောက်သုံးရေသန့်စင်မှုအခန်းနှင့် အမှိုက်စွန့်ပစ်ရာနေရာ အစရှိသည်တို့အားသီးသန့်တည်ဆောက်ပေးထားပါသည်။

ပိတ်သိမ်းခြင်းကာလ။ မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုအဆိုပြုချက်အရ 34 နှစ်ရင်းနှီးမြှုပ်နှံမှုကာလအပြီးတွင် လုပ်ငန်းပိတ်သိမ်းခြင်း ကာလ ကိုဆိုလိုသည်။

ဥပဒေနှင့် မူဝါဒဆိုင်ရာ အချက်အလက်များ

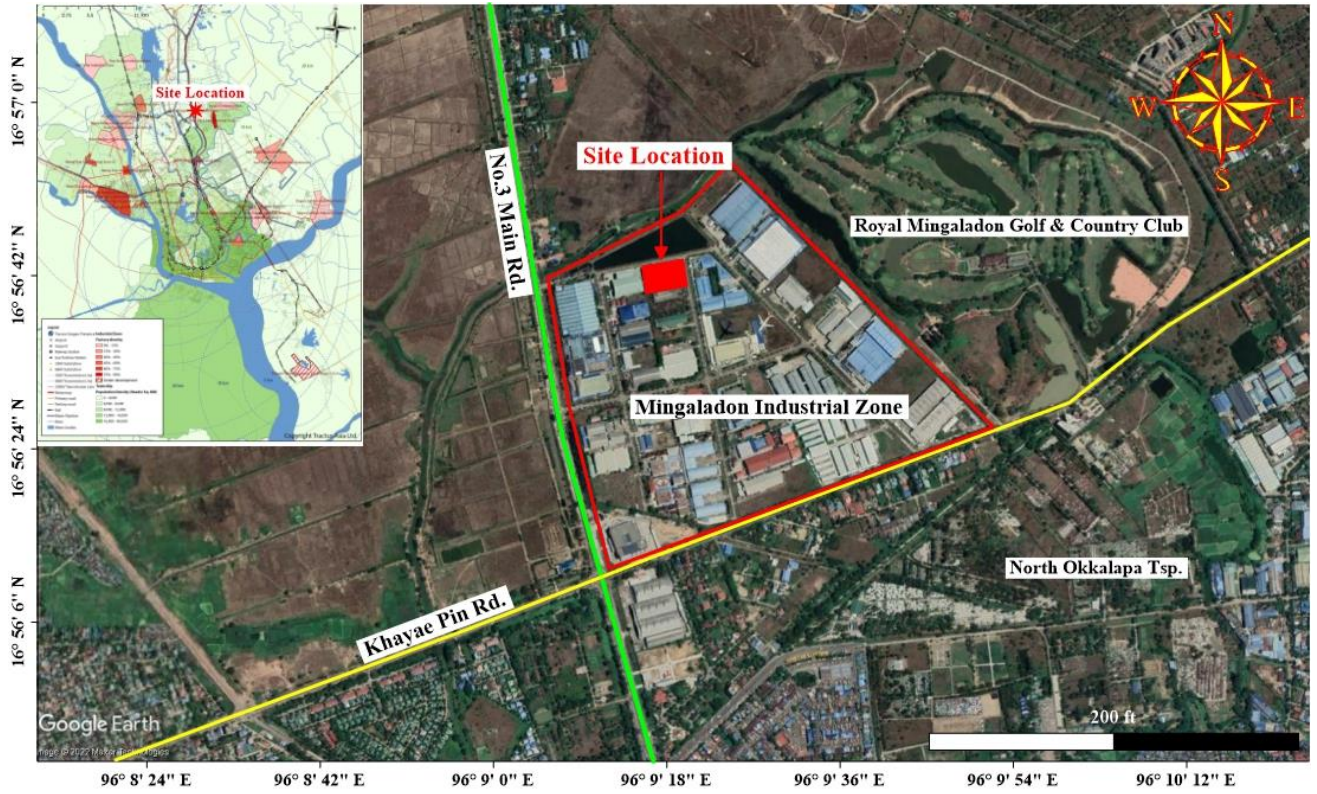
စက်ရုံနှင့် ဆက်စပ်သက်ဆိုင်နေပြီး လိုက်နာရမည့် ဥပဒေနှင့် နည်းဥပဒေများ၊ MONREC မှ ထုတ်ပြန်ထားသည့် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်းများ၊ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ၊ စက်ရုံနှင့်သက်ဆိုင်သည့် ဒေသတွင်း သို့မဟုတ် အပြည်ပြည်ဆိုင်ရာ သဘာဝပတ်ဝန်းကျင်နှင့် လူမှုပတ်ဝန်းကျင်ဆိုင်ရာ မူဝါဒများ၊ ဆက်စပ်နေသည့် နိုင်ငံတကာသဘောတူချက်များကို အကျဉ်းချုပ်ရေးသားဖော်ပြထားပါသည်။

- The Constitution Law, 2008
- The Environmental Conversation Law, 2012
- The Environmental Conversation Rule, 2014
- Environmental Impact Assessment Procedure, 2015
- National Environmental Quality (Emission) Guideline, 2015
- National Myanmar Environmental Policy, 2019
- Foreign Investment Law, 2012
- Foreign Investment Rule, 2013
- Myanmar Investment Rule, 2017
- Myanmar Insurance Law, 1993
- Payment of Wages Law, 2016
- The Payment of Wages Act, 1936
- Yangon City Development Committee Law, 2018
- The Amended Law for Factories Act, 1951 (2016)
- The Private Industrial Enterprise Law
- The Export and Import Law, 2012
- The Prevention of Hazard from Chemical and Related Substances Law, 2013
- The Underground Water Act
- Myanmar Fire Brigade Law, 2015

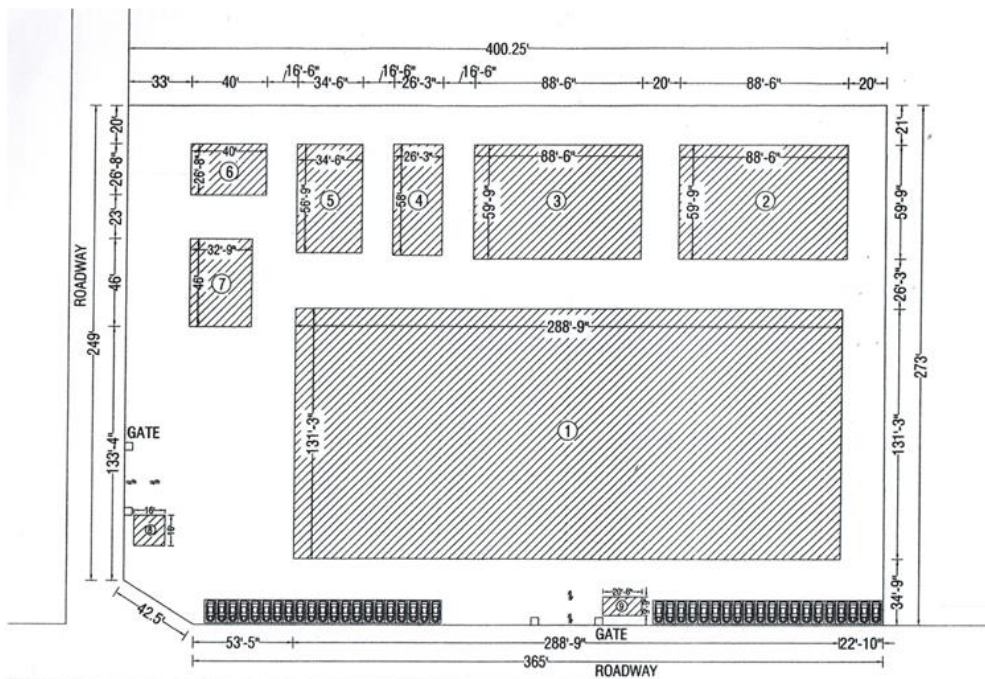
- Fire Safety Procedure
- The Electricity Law, 2014
- Labor Dispute Settlement Law, 2012
- The Law Amending the Settlement of Labor Dispute Law, 2019
- The Social Security Law, 2012
- The Employment and Skill Development, 2013
- The Worker's Compensation Act, 1923
- The Leave and Holidays Act (1951, partially reused in 2014)
- The Minimum Wage Law, 2013
- Public Health Law, 1972
- Prevention and Control of Communicable Disease Law (1995 Amendment in 2011)
- Occupational Safety and Health Law, 2019
- The Law on Standardization
- လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများဆိုင်ရာ ဥပဒေ (2018)
- The Motor Vehicles Law, 2015
- The Conversation of Water Resources and River Law, 2006
- The Commercial Tax Law (1990 Amended 2014)

စီမံကိန်းဆိုင်ရာအချက်အလက်

William (Myanmar) Industrial Company Limited သည် မြေကွက်အမှတ် (အေ-၈) ၊ မင်္ဂလာဒုံ စက်မှုဇုန်၊ မင်္ဂလာဒုံမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် တည်ရှိသည်။ ဧရိယာအကျယ်အဝန်းမှာ (၂.၅၀၂) ဧက ရှိ၍ အဆောက်အအုံများမှာ ကုန်ထုတ်လုပ်ဆောင်၊ လူနေဆောင်၊ ကုန်ကြမ်းသိုလှောင်ရုံ၊ မီးဖိုချောင်၊ ထမင်းစားဆောင်၊ ထရန်စဖော်မာ၊ မီးစက်ခန်း တို့ဖြစ်သည်။



စက်ရုံတည်နေရာ



- 1. Production Area
- 2. Dormitory
- 3. Dormitory
- 4. Dining Room
- 5. Dining Room
- 6. Dormitory
- 7. Generator Room
- 8. Security Gate
- 9. Waste Storage Area

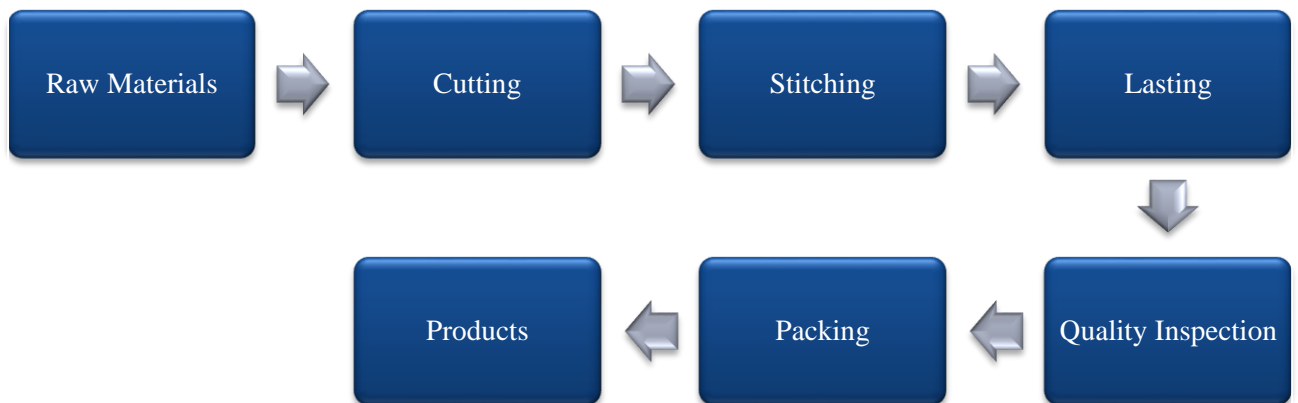
စက်ရုံတည်ဆောက်မှု ပုံစံ



အနီးပတ်ဝန်းကျင်ပြပုံ

ရေသိုလှောင်ကန် နှင့် မီးသတ်ရေလှောင်ကန်တို့၏ ထုထည်မှာ ၄၅၉၀၀ ဂါလံ အသီးသီးဖြစ်ကြသည်။ ခန့်မှန်းရေသုံးစွဲမှုမှာ နှစ်စဉ် 393,967 ဂါလံဖြစ်သည်။ လစဉ် ဒီဇယ်သုံးစွဲမှု ပမာဏမှာ ၁၃၈၀၆.၉၂ လီတာဖြစ်သည်။ လျှပ်စစ်သုံးစွဲမှု ပမာဏမှာ တစ်လလျှင် ခန့်မှန်း ၆၉၁၆ ယူနစ်ဖြစ်ပါသည်။

အဓိကသုံးစွဲသည့် ကုန်ကြမ်းပစ္စည်းများမှာ သားရေဖိုင်ဘာမျှင်၊ တိပ်၊ ကော် နှင့် ဆက်စပ်ပစ္စည်းများ ဖြစ်၍ ထိုင်ဝမ် နှင့် တရုတ်ပြည်မှ တင်သွင်းပါမည်။ William (Myanmar) Industrial Company Limited ၏ ထုတ်ကုန်ပစ္စည်းမှာ အားကစားဖိနပ်ဖြစ်၍ အမေရိကန်၊ ဥရောပ၊ ဩစတေးလျ၊ ဂျပန်၊ ကနေဒါ နိုင်ငံ များသို့ တင်ပို့ပါသည်။ ကုန်ထုတ်လုပ်မှုနှုန်းမှာ ပထမ (၁၀)နှစ်အတွင်း ၂၄၀၀၀၀၀ မှ ၃၅၁၂၅၂၉ ဖြစ်သည်။



ထုတ်လုပ်ပုံအဆင့်ဆင့်



ထုတ်ကုန်ပစ္စည်း

အနီးပတ်ဝန်းကျင် အခြေအနေ

ကနဦးစစ်တမ်းကောက်ယူခြင်းနှင့် ဒေသဆိုင်ရာမှ အချက်အလက်များရယူခြင်းသည် အလွန်အရေးကြီးပါသည်။ ပတ်ဝန်းကျင်အရည်အသွေး တိုင်းတာခြင်းကဲ့သို့သော ကနဦးစစ်တမ်း ကောက်ယူခြင်းသည် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီရင်ခံစာတွင် အရေးပါသောအခန်းအဖြစ် တည်ရှိနေသည်။ ကွင်းဆင်းလေ့လာထားသည် အချက်အလက်များကို သက်ဆိုင်ရာခေါင်းစဉ်အလိုက် အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များနှင့် နှိုင်းယှဉ်၍ ဖော်ပြထားပါသည်။ ထိုနည်းတူ လျော့ချရမည့်နည်းလမ်းများကိုလဲ ထည့်သွင်းဖော်ပြထားပါသည်။ စီမံကိန်းတည်ရှိရာဒေသရှိ ရာသီဥတု၊ မိုးရေချိန်၊ လူမှုစီးပွားရေးဆိုင်ရာအချက်အလက်များကိုလဲ ထည့်သွင်းဖော်ပြထားပါသည်။

အခြေခံစစ်တမ်းများကောက်ယူခြင်းကို ၅ရက် မေလ ၂၀၂၂ တွင်ဆောင်ရွက်ခဲ့၍ လေအရေအသွေး၊ အပူချိန်၊ စိုထိုင်းဆ၊ ဆူညံသံ နှင့် ညစ်ညမ်းမှုကို တိုင်းတာ ၍ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး ထုတ်လွှတ်မှု လမ်းညွှန်ချက်များ နှင့် နှိုင်းယှဉ်ဖော်ပြထားပါသည်။ စီမံကိန်းကြောင့် သက်ရောက်မှုများကို လျော့ချရန် နှင့် ထိန်းသိမ်းရေးများပြုလုပ်ရန် ဖော်ပြထားပါသည်။ လေအရည်အသွေး၊ ရေအရည်အသွေး၊ မြေဆီလွှာ နှင့် ဆူညံသံများ၏ အခြေအနေ အကျဉ်းချုပ်ကိုလည်း ဖော်ပြထားပါသည်။

အမျိုးအမည်	တိုင်းတာမှုများ
လေထု	(1) Sulfur dioxide (SO ₂), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO ₂), (4) Ozone (O ₃) (5) PM10 and PM2.5
ဆူညံသံ	ဆူညံမှု အတိုင်းအတာ

တိုင်းတာတွေ့ရှိချက်အရ PM2.5 သည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာထုတ်လွှတ်မှု အရည်အသွေး လမ်းညွှန်မှုထက်အနည်းငယ်ကျော်လွန်နေ၍ တခြားသော ပါရာမီတာများသည် လမ်းညွှန်မှုအောက်တွင်

င်ရှိကြောင်းတွေ့ရသည်။ ဆူညံသံသည်လည်း အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာထုတ်လွှတ်မှု အရည်အသွေး လမ်းညွှန်မှု ထက်အနည်းငယ်ကျော်လွန်နေကြောင်းတွေ့ရသည်။

ပတ်ဝန်းကျင်ထိခိုက်မှုနှင့် လျော့ချရေး အစီအစဉ်

စီမံကိန်းဆောင်ရွက်ချက်များကြောင့် ပတ်ဝန်းကျင်ဆိုင်ရာအရင်းအမြစ်များ၊ ဂေဟဆိုင်ရာ အရင်းအမြစ်များ၊ လူ့စွမ်းအားအရင်းအမြစ်များနှင့် စွန့်ပစ်ပစ္စည်းများစွန့်ပစ်ခြင်း စသည့် ဖြစ်လာနိုင်သည့်ထိခိုက်မှုများကို ခွဲခြားသတ်မှတ်ပြီး ၎င်းတို့၏ ရလဒ်များကို ထိခိုက်မှုဆန်းစစ်သည့် နည်းလမ်းများကို အသုံးပြု၍ သတ်မှတ်ခဲ့ပါသည်။ စီမံကိန်းအား ထိခိုက်မှုများကို အပိုင်းသုံးပိုင်းခွဲ၍ သတ်မှတ်ထားသည်။ အမျိုးအစားမှာ တည်ဆောက်သည့်ကာလ၊ လုပ်ငန်းလည်ပတ်သည့်ကာလ နှင့် လုပ်ငန်းဖျက်သိမ်းသည့်ကာလများ ဖြစ်ပါသည်။ ပတ်ဝန်းကျင်ထိ ခိုက်မှု လျော့ပါးစေရေး နည်းလမ်းများကိုလဲထည့်သွင်းဖော်ပြထားပါသည်။

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
လေထုညစ်ညမ်းမှု	ကုန်ကြမ်းပစ္စည်းများ၊ ကုန်ချောပစ္စည်းများသယ်ဆောင်သော ယာဉ်များမှ ဖုန်မှုန့်များ၊ ဖန်လုံအိမ်အာနိသင်ဖြစ်စေသော ဓာတ်ငွေ့များထွက်ရှိခြင်း၊ အရေးပေါ်မီးစက်များနှင့် ယာဉ်အသွားအလာမှ ထွက်သော မီးခိုးများ	<ul style="list-style-type: none"> • လေညစ်ညမ်းမှုများကိုထိန်းချုပ်ခြင်း၊ ယာဉ်များ၊ မီးစက်များ၊ စက်ပစ္စည်းများကို ပုံမှန်စစ်ဆေးခြင်း။ • ယာဉ်များ၊ ကွန်ပရက်ဆာ၊ မီးစက်များကို ကောင်းမွန်စွာထိန်းသိမ်းခြင်း • မီးခိုးထွက်ရှိမှုများကို စစ်ပေးသည့်အိတ်များတပ်ဆင်စေခြင်း
မြေဆီလွှာညစ်ညမ်းမှု	<ul style="list-style-type: none"> • မတော်တဆ စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း။ 	<ul style="list-style-type: none"> • လျော့ချရန်မလိုပါ။
ဆူညံသံ	<ul style="list-style-type: none"> • ကုန်ပစ္စည်းထုတ်လုပ်ရေးလုပ်ငန်းကြောင့် ပတ်ဝန်းကျင် ဆူညံမှု။ 	<ul style="list-style-type: none"> • စက်လှိုင်းများနှင့် စက်ပစ္စည်းများရွေ့ရှားမှုကြောင့် ဆူညံသံကိုကာကွယ်ရန် လုပ်သားများကို နားကြပ်များအသုံးပြုစေခြင်း
ကုန်းနေ၊ ရေနေ အပင်နှင့် သတ္တဝါများ ပျက်စီးဆုံးရှုံးမှု	<ul style="list-style-type: none"> • အားကစားအဝတ်အထည်နှင့် အားကစားဖိနပ်ထုတ်လုပ်ခြင်း 	<ul style="list-style-type: none"> • လျော့ချရန်မလိုပါ။
မီးဘေးအန္တရာယ်	<ul style="list-style-type: none"> • လျှပ်စစ်တပ်ဆင်အသုံးပြုမှုကြောင့် မတော်တဆဖြစ်ခြင်း • အမှိုက်စွန့်ပစ်သည့် နေရာနှင့် ကုန်ကြမ်းသိုလှောင်သည့် နေရာမှ မီးလောင်ကျွမ်းနိုင်ခြင်း 	<ul style="list-style-type: none"> • စက်ရုံ၏မီးဘေးအန္တရာယ်ကာကွယ်ရန်အတွက် မီးသတ်ပူး၊ မီးသတ်ပိုက်၊ မီးသတ်ခေါင်း များထားရှိခြင်း။ • မီးသတ်ဆိုင်ရာစက်ပစ္စည်းကိရိယာများကိုပုံမှန်စစ်ဆေးခြင်း၊ အေ

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
		<p>ရပေါ်အခြေနေအတွက် မီးသတ်ရေးကန်အဆင်သင့်ထားရှိခြင်း။</p> <ul style="list-style-type: none"> • စက်ရုံအတွင်းအရေးပေါ်အချက်ပေးစနစ်များထားရှိခြင်း။ • အရေးပေါ်ထွက်ပေါက်များတွင်တစ်လျှောက်တွင် ကုန်ပစ္စည်းများပိတ်ဆို့ခြင်းမရှိအောင်ရှင်းလင်းထားရှိခြင်း။
<p>လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် လုံခြုံမှု</p>	<ul style="list-style-type: none"> • စက်ပစ္စည်းများလည်ပတ်ခြင်းကြောင့် မတော်တဆထိခိုက်မှုများဖြစ်ပေါ်နိုင်ခြင်း။ • ပစ္စည်းတင်ချုပ်လုပ်ခြင်း၊ ဖြတ်တောက်ခြင်း၊ ရောနှောခြင်း၊ ဖိနှိပ်ခြင်း၊ ထုတ်ပိုးခြင်း။ • ရေခဲခဲသုံးမီးပူများကြောင့် မတော်တဆထိခိုက်မှုများဖြစ်ပေါ်နိုင်ခြင်း။ 	<ul style="list-style-type: none"> • အရေးပေါ်အခြေအနေများအတွက် စက်ပစ္စည်းကိုင်တွယ်မှုသင်တန်းပေးခြင်း၊ ကြက်ခြေနီသင်တန်းပေးခြင်း၊ မီးသတ်သင်တန်းပေးခြင်း။ • လုပ်ငန်းခွင်တွင်း အလုပ်သမားများ အလင်းရောင်ကောင်စွာရရှိစေရန်နှင့် အမြင်အာရုံမထိခိုက်စေရန် အလင်းရောင်များကို လုံလောက်စွာထားရှိခြင်း။ • အလုပ်သမားများအတွက်တစ်ကိုယ်ရေ ရကာကွယ်ရေးသုံးပစ္စည်းများဖြစ်သည့် နားကြပ်၊ လက်အိတ်၊ ဦးထုတ်၊ မျက်မှန်များ အသုံးပြုစေခြင်း။ • လျှပ်စစ်အန္တရာယ်မဖြစ်စေရန်နှင့် ပြုပြင်ထိန်းသိမ်းမှုများ ပြုလုပ်ရန်အတွက် ဝန်ထမ်းထားရှိ၍ ပုံမှန်စစ်ဆေးခြင်း။
<p>ကျန်းမာရေး</p>	<ul style="list-style-type: none"> • အရေးပေါ် မီးစက်များမှ ဆူညံသံများထွက်ပေါ်လာခြင်း။ 	<ul style="list-style-type: none"> • လုပ်သားများအတွက်ကျန်းမာရေးမထိခိုက်စေရန် ရေမြောင်းများကိုစနစ်တကျထားရှိခြင်း။ • လုပ်သားများအတွက် ရှစ်နာရီအတွင်းလက်ခံနိုင်သည့် အာမြင့်ဆုံး ဆူညံမှု နှုန်းမှာ 90dB(A) ဖြစ်သည်။

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
		အသံဆူညံမှုအမြင့်ဆုံးနေရာများတွင် နားကြပ်များ တပ်ဆင်စေခြင်း။
စွန့်ပစ်အမှိုက်	<ul style="list-style-type: none"> ချည်ထည်၊ နိုင်လွန်ထည်အပိုင်းအစများ မီးဖိုချောင်၊ လူနေဆောင် ရုံးခန်းမှ တွက်ရှိသော အမှိုက်များ။ 	<ul style="list-style-type: none"> စက်ရုံအတွင်း အမှိုက်ပုံးများထားရှိခြင်း။ သတ်မှတ်ထားသောနေရာတွင် အမှိုက်စို၊ အမှိုက်ခြောက်များခွဲခြားစွန့်ပစ်ခြင်း။ အမှိုက်များကို ရန်ကုန်မြို့နယ်စည်ပင်သာယာရေး ကော်မတီနှင့် ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။
စွန့်ပစ်အရည်	<ul style="list-style-type: none"> မိလ္လာစနစ်ထားရှိခြင်း။ ရုံးခန်း၊ မီးဖိုချောင် နှင့် လူနေဆောင်များမှ စွန့်ပစ်အရည်များတွက်ရှိခြင်း။ 	<ul style="list-style-type: none"> ဆီကန်၊ မိလ္လာကန်များ ကိုပုံမှန်စစ်ဆေးခြင်း၊ သန့်စင်ခြင်းများပြုလုပ်ခြင်းဖြင့် စွန့်ပစ်အရည်များ စီမံဝင်မှုများကိုလျော့ကျစေနိုင်ခြင်း။
အန္တရာယ်ရှိအမှိုက်	<ul style="list-style-type: none"> မော်တော်ယာဉ်များ စက်ပစ္စည်းများ ပြုပြင်ထိန်းသိမ်းခြင်းမှ ဆီများတွက်ရှိခြင်း။ 	<ul style="list-style-type: none"> အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများသိုလှောင်မှု အားထိန်းသိမ်းခြင်း စစ်ဆေးခြင်း။ လုပ်ငန်းခွင်ကျန်းမာရေး လုံခြုံမှုနှင့်ပတ်ဝန်းကျင်ဆိုင်ရာ လိုအပ်ချက်များ နှင့်ကိုက်ညီမှုရှိစေရန် ဓာတုပစ္စည်းများကို စနစ်တကျစွန့်ပစ်ခြင်း။ အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်မြို့နယ်စည်ပင်သာယာရေး ကော်မတီ နှင့်ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။

သိသာထင်ရှားသော သက်ရောက်မှုများကိုတွက်ချက်ရာတွင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုနှင့် ဆန်းစစ်ခြင်းအဖွဲ့အစည်း (IEMA) မှ ချမှတ်ထားသော နည်းလမ်းကို အသုံးပြု၍ ဆန်းစစ်ထားပါသည်။ စီမံကိန်းလုပ်ဆောင်ချက်များပေါ် မူတည်၍ ရလဒ်များ နည်းသည်။ အလွန်နည်းသည်ကို ဖော်ပြထားပါသည်။ အချို့ရလဒ်များမှာ အသင့်အတင့် ရှိပါသည်။ လူမှုစီးပွားဆိုင်ရာ တိုးတက်မှုများ အနေဖြင့် ကောင်းမွန် သောသက်ရောက်မှု ရှိသည်ကို တွေ့ရှိရပါသည်။

ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ် လုပ်ဆောင်ချက်

အဆိုပြုလုပ်ငန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် Plan-Do-Check-Act (P D C A) စက်ဝိုင်းဖြင့် အစီစဉ်တကျ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ အစီအစဉ်တွင် စက်ရုံကြောင့် ဖြစ်ပေါ်စေနိုင်သော ပတ်ဝန်းကျင်နှင့်

လူမှုဘဝအပေါ် ဆိုးကျိုးသက်ရောက်မှုများကို လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစရှိသည့် အစီအစဉ်များ ပါဝင်ပါသည်။ ၎င်း EMP အစီအစဉ်များကို အကောင်အထည်ဖော်ရန်အတွက်သည် စက်ရုံတွင် ကျန်းမာရေး၊ ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အဖွဲ့အစည်းတစ်ခုထားရှိပြီး လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်များကို အကောင်အထည် ဖော်သွားမည်ဖြစ်ပါသည်။ အဆိုပါစက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ရေရှည်ဖွံ့ဖြိုးတိုးတက်ကောင်းမွန်သော ပတ်ဝန်းကျင် အဖြစ် အကောင်အထည်ဖော်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ဆိုင်ရာ ဆိုးကျိုးသက်ရောက်မှုများကို လျော့နည်းစေရန် စီမံခန့်ခွဲမှုအစီအစဉ်များနှင့် စောင့်ကြပ်ကြည့်ရှုမည့်အစီအစဉ်များကို အောက်ပါအတိုင်းပတ်ဝန်းကျင်ဆိုင်ရာ အကြောင်းအရာတစ်ခုချင်းစီအလိုက် ခွဲခြားမူ ပြုလုပ်ထားပါသည်။

၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- လေထုညစ်ညမ်းမှုနှင့် ကာဘွန်ထွက်ရှိမှုကို လျော့ချရန် သစ်ပင်များစိုက်ပျိုးခြင်း
- ဖိုထူထပ်သောနေရာများတွင် အလုပ်သမားများကို တစ်ကိုယ်ရေသုံး အကာအကွယ်ပစ္စည်းများ အသုံးပြုစေခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁၀၀၀၀၀ ကျပ်

၂။ ဆူညံမှုထိန်းခြင်းဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- မီးစက်ခန်းများတွင် ဆူညံသံထိန်းချုပ်ကိရိယာများတပ်ဆင်ခြင်း
- လုံလောက်သော တစ်ကိုယ်ရေကာကွယ်ရေးပစ္စည်းများအသုံးပြုစေခြင်း
- ဆူညံသော နေရာများတွင် အလုပ်လုပ်သော အလုပ်သမားများအတွက် တစ်ကိုယ် ရေသုံးကာကွယ်ရေးပစ္စည်းများကို အသုံးပြုစေခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁၀၀၀၀၀ ကျပ်

၃။ အမှုိတ်စွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- စွန့်ပစ်အစိုင်အခဲများကို အစိုအခြောက်ခွဲခြား၍ သီးခြားစွန့်ပစ်စေခြင်း
- နေ့စဉ်ထွက်စွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်စည်ပင်သာယာရေးကော်မတီနှင့် ချိတ်ဆက်စွန့်ပစ်ခြင်း
- တစ်နှစ် ခန့်မှန်းကုန်ကျစရိတ် ၅၀၀၀၀ ကျပ်

၄။ ရေဆိုးစွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- စက်ရုံမြောင်း ရေစီးရေလာကောင်းစေရန် ထိန်းချုပ်ခြင်း နှင့်
- မိလ္လာစနစ်ကို စစ်ဆေးခြင်း
- စက်ရုံမြောင်းများ ပိတ်ဆို့ခြင်းမဖြစ်စေရန် စစ်ဆေးခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၈၀၀၀၀၀ ကျပ်

၅။ စွမ်းအင်အသုံးပြုမှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- စွမ်းအင်အသုံးပြုမှုလျော့ချရေးစနစ်ကို အသုံးပြုခြင်း

- မလိုအပ်သော နေရာများတွင် လျှပ်စစ်အသုံးပြုခြင်း၊ မီးထွန်းထားခြင်း စသည်တို့ကို ကြည့်ရှုထိန်းသိမ်းခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁၀၀၀၀၀ ကျပ်

၆။ ရေအသုံးပြုမှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- ရေအသုံးပြုမှုကို သိရှိနိုင်ရန် water meter အသုံးပြုခြင်း
- ရေအသုံးပြုမှုကို ထိန်းသိမ်းမှုများ ပြုလုပ်နိုင်စေရန် ဝန်ထမ်းများကို သင်ကြားပေးခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၅၀၀၀၀၀ ကျပ်

၇။ အရေးပေါ်တုန့်ပြန်ရေး အစီအစဉ်

- မီးသတ်စနစ်များကို ကောင်းမွန်အောင်ပြုလုပ်ခြင်း
- အရေးပေါ်စနစ်ထားရှိခြင်း (ဥပမာ- အရေးပေါ်ထွက်ပေါက်)
- ငလျင်နှင့် တခြားသော အရေးပေါ်ကိစ္စရပ်အများအတွက် ဆေးဝါး၊ ကြက်ခြေနီ သင်တန်းများထားရှိခြင်း
- မီးသတ်တပ်ဖွဲ့များ၊ ကယ်ဆယ်ရေးတပ်ဖွဲ့များ ဖွဲ့စည်းခြင်း၊ လုံခြုံရေးအတွက် စက်ရုံဝန်ထမ်းများကို သင်တန်းပေးခြင်း။
- ၁၅၀၀၀၀၀ ကျပ်

၈။ လူမှုအကျိုးတူ ပူးပေါင်းပါဝင်မှု အစီအစဉ် CSR Plan

- ကျန်းမာရေးစောင့်ရှောက်မှု - ၀.၅%
- သင်တန်းပို့ချမှု - ၁%
- ဝန်ထမ်းများကျန်းမာရေးစောင့်ရှောက်မှု - ၀.၅%

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း အစီအစဉ်တွင် စက်ရုံ၏ IEE အစီရင်ခံစာ အကြောင်းကို ရှင်းလင်းတင်ပြခြင်းဖြစ်သည်။ တွေ့ဆုံပွဲကို နိုင်ငံရေးကြောင့်လည်းကောင်း ကျန်းမာရေးဆိုင်ရာ Covid - 19 စည်းကမ်းချက်များကြောင့် ၂ ရက်၊ ဩဂုတ်လ၊ ၂၀၂၂ ခုနှစ်တွင် လူမှုကွန်ယက်မှပင် ကြေညာခြင်း ပြုလုပ်ခဲ့ပါသည်။ အဆိုပါထုတ်ပြန်ကြေငြာခြင်းတွင် အဆိုပြုစက်ရုံဆိုင်ရာ အချက်အလက်များ၊ ပတ်သက်သည်များ အကျဉ်းချုံးပြီး တင်ပြထားပါသည်။အဆိုပြုစီမံကိန်း၏ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း အစီရင်ခံစာ အကျဉ်းကို -

(https://drive.google.com/file/d/157sdurR-AP_RaVMy_fwR0gbO_R4KtCpe/view?usp=drivesdk)

တွင် အသေးစိတ်ဝင်ရောက်ဖတ်ရှုနိုင်ပါသည်။

နိဂုံးနှင့် အကြံပြုချက်

အကျဉ်းချုပ်အားဖြင့် ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒလမ်းညွှန်ချက်များအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာဆောင်ရွက်ကျင့်သုံးရန်တာဝန်များကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်တွင် ဖော်ပြရှင်းလင်းတင်ပြထားပါသည်။ စီမံကိန်းနှင့် သက်ဆိုင်သူများအား စီမံကိန်းဆိုင်ရာ အကြောင်းအရာများ ရှင်းလင်းတင်ပြခြင်း၊ အကြံပြုချက်များနှင့် ဆွေးနွေးတင်ပြလာသည့် သဘောထား အကြံဉာဏ်များကိုရယူပြီး အစီအရင်ခံစာတွင် ဖော်ပြထားပါသည်။

အကြံပြုချက်များအရ-

- အစီရင်ခံစာတွင် ဖော်ပြထားသည့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် ကတိကဝတ်များကို စီမံကိန်း၏ သက်တမ်းတလျှောက်တွင် အကောင်အထည်ဖော် ဆောင်ရွက်ရမည်။
- အစီအစဉ်နှင့် အရည် စွန့်ပစ်ပစ္စည်းများကိုရန်ကုန် မြို့တော် စည်ပင်သာယာရေး၏ စည်းကမ်းများအတိုင်း စွန့်ပစ်ရမည်။
- အလုပ်သမားများအား သင့်တော်သော သင်တန်းများပေးခြင်း၊ လုပ်ငန်းခွင်အတွင်း တစ်ကိုယ်ရည် ကာကွယ်ရေး ပစ္စည်းများ အသုံးပြုစေခြင်းများ ဆောင်ရွက်ရမည်။
- ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်များကို နေ့စဉ်၊ လစဉ်နှင့် နှစ်စဉ် လုပ်ငန်းခွင်အတွင်း လုပ်ဆောင်ရမည်။
- ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ် မှတ်တမ်းများကို သေချာသိမ်းဆည်း၍ တတိယအဖွဲ့အစည်း သို့ တင်ပြရမည်။
- ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒ လမ်းညွှန်ချက်များအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာဆောင်ရွက်ရ မည်။

အချုပ်အားဖြင့်ဆိုသော် အဆိုပြုသူသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာနမှ ညွှန်ကြားလာသော အဆိုပြုချက်များ၊ အကြံပြုချက်များကို လိုက်နာဆောင်ရွက်ရမည်။ ထိရောက်သော ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှုကို အဆိုပြုသူမှ ဆောင်ရွက်ရမည်။ အဆိုပြုသူသည် ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒ လမ်းညွှန်ချက်များအတိုင်း လိုက်နာဆောင်ရွက်ရမည်။

EXECUTIVE SUMMARY

This report describes the findings of the Initial Environmental Examination (IEE) for the Manufacturing of Sports Shoes on CMP Basic by WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED. The main objective of this report is to identify the major environmental impacts due to implementation of the project along with the effective measures to mitigate the potential adverse impacts.

The project approved of MIC amendment permit No.730/2014 on 28th May 2014. The Yangon Region Investment Committee announce for the environmental approval and comments of the Ministry of the Natural Resources and Environmental Conservation (MONREC) on the proposed project and had approved the proposal for investment in manufacturing of various kind of Sports Shoes under the name of WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED as a solely owned foreign investment from the China. 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), the said project requires an Initial Environmental Examination (IEE) to meet the environmental assessment according to requirements of Endorsement No. Yaka- 1/3/4 (EIA) (1217/2020) on 6 April 2020. Therefore, WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED commissioned MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED for IEE report study.

The proposed factory is the 100% foreign investment by WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED with an estimated authorized capital of USD (5.915) millions. The proposed factory is located at Plot No. A-8, Mingaladon Industrial Zone, Mingaladon Township, Yangon Region and the total land area 2.502 acres (10,127 square metre). The factory aims to manufacture and export of Sports Shoes with production process. The proposed duration of the investment shall be 34 years. The factory area includes 3-storeys production building of (288.9'x131.3'), two 2-storey buildings of (88.6'x59.9') and (88.6'x59.9'), one 1-storey building of (26.3'x58') and (34.6'x56.9'), 2-storey of (40'x26.8') and 1-storey building of (32.9'x46'). Number of people are that 224 persons of local employees and 3 persons of foreign technicians working at the factory. Most are local people, who manage the company by their dynamic, enthusiastic, experienced, and cooperative skills. Canteen, dormitory and other facility were provided for employees.

Decommissioning phase: The proposed project investment duration is 34 years and they will close out the project according to their MIC proposal.

Policy, Legal and Institutional Framework

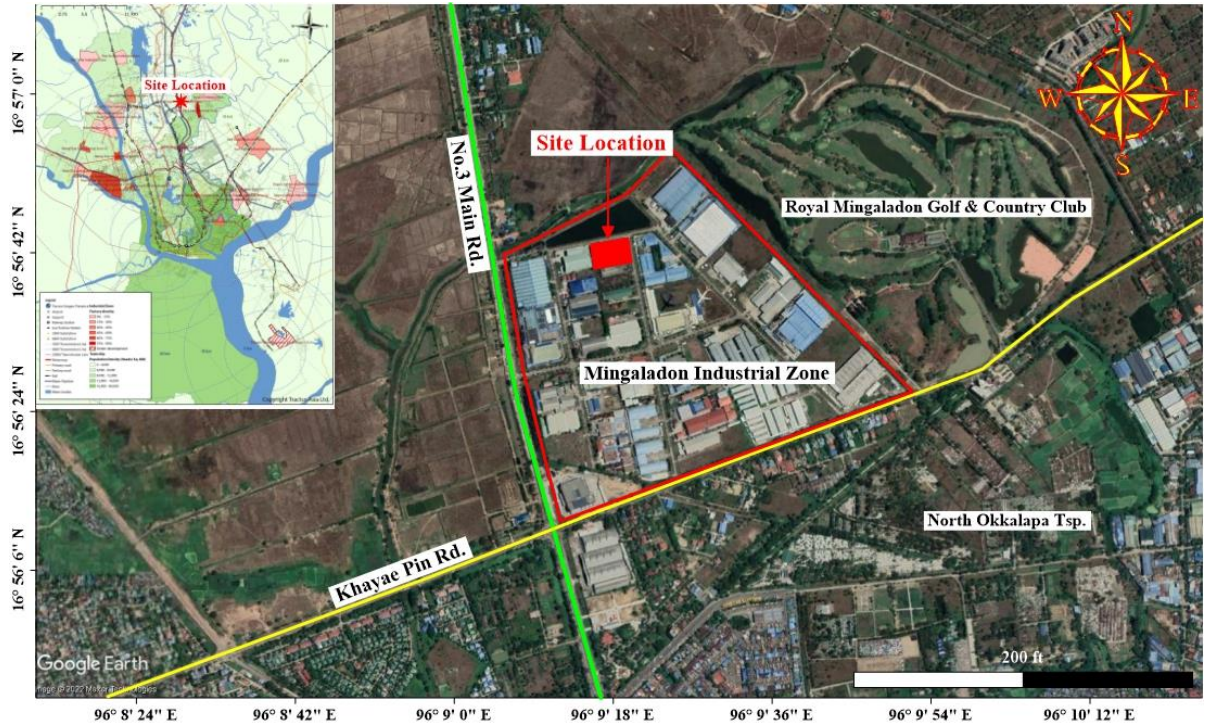
The brief summary of relevant national environmental legislations such as Environmental Impact Assessment Procedure (2015) and National Environmental Quality (emission) Guidelines, established by the Ministry of Natural Resources and Environmental Conservation (MONREC) and overview of current local and international environmental and social policies including related international or regional convention for the proposed project.

1. The Constitution Law, 2008

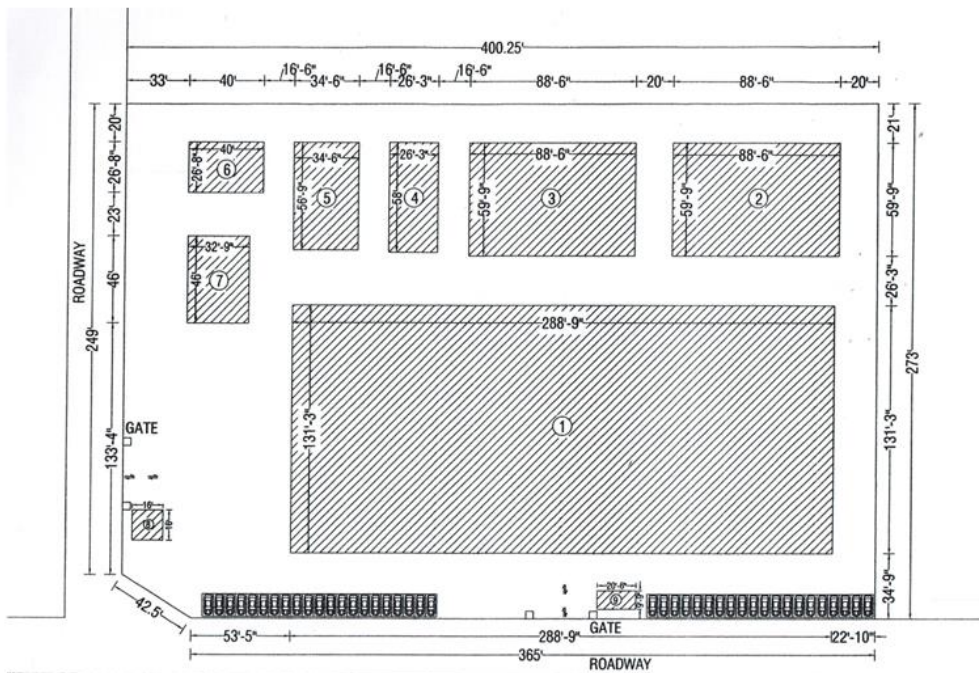
2. The Environmental Conversation Law, 2012
3. The Environmental Conversation Rule, 2014
4. Environmental Impact Assessment Procedure, 2015
5. National Environmental Quality (Emission) Guideline, 2015
6. National Myanmar Environmental Policy, 2019
7. Foreign Investment Law, 2012
8. Foreign Investment Rule, 2013
9. Myanmar Investment Rule, 2017
10. Myanmar Insurance Law, 1993
11. Payment of Wages Law, 2016
12. The Payment of Wages Act, 1936
13. Yangon City Development Committee Law, 2018
14. The Amended Law for Factories Act, 1951 (2016)
15. The Private Industrial Enterprise Law
16. The Export and Import Law, 2012
17. The Prevention of Hazard from Chemical and Related Substances Law, 2013
18. The Underground Water Act
19. Myanmar Fire Brigade Law, 2015
20. Fire Safety Procedure
21. The Electricity Law, 2014
22. Labor Dispute Settlement Law, 2012
23. The Law Amending the Settlement of Labor Dispute Law, 2019
24. The Social Security Law, 2012
25. The Employment and Skill Development, 2013
26. The Worker's Compensation Act, 1923
27. The Leave and Holidays Act (1951, partially reused in 2014)
28. The Minimum Wage Law, 2013
29. Public Health Law, 1972
30. Prevention and Control of Communicable Disease Law (1995 Amendment in 2011)
31. Occupational Safety and Health Law, 2019
32. The Law on Standardization
33. လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတတ်သော ဝတ္ထုပစ္စည်းများဆိုင်ရာ ဥပဒေ (2018)
34. The Motor Vehicles Law, 2015
35. The Conversation of Water Resources and River Law, 2006
36. The Commercial Tax Law (1990 Amended 2014)

Project Description

William (Myanmar) Industrial Company Limited is located at Plot No. A-8, Mingaladon Industrial Zone, Mingaladon Township, Yangon Region.. The total area of project site is 2.502 acres. and build main factory buildings, dormitory, warehouse, kitchen, canteen, maintenance house, etc. which were built on its land area. Transformer room, generator room and water treatment plant are separated by main factory building structure.

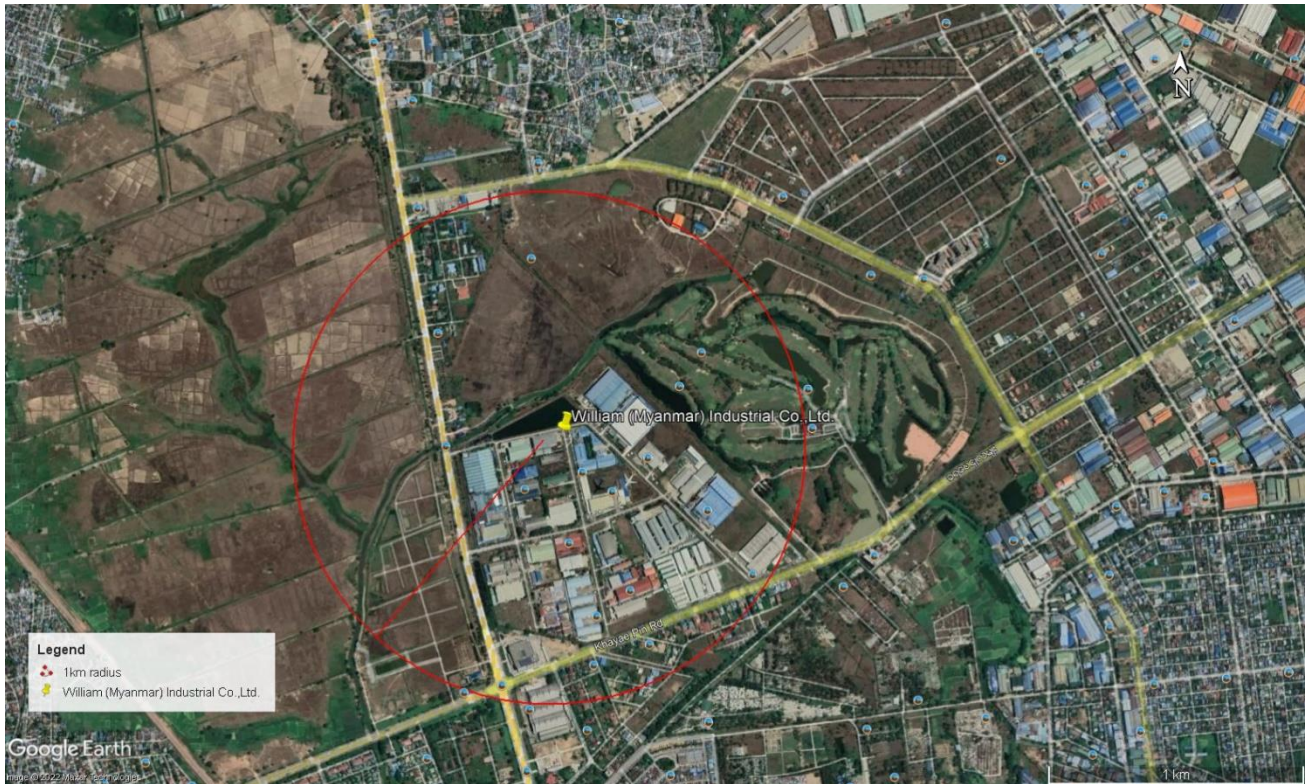


Location Map



- 1. Production Area
- 2. Dormitory
- 3. Dormitory
- 4. Dining Room
- 5. Dining Room
- 6. Dormitory
- 7. Generator Room
- 8. Security Gate
- 9. Waste Storage Area

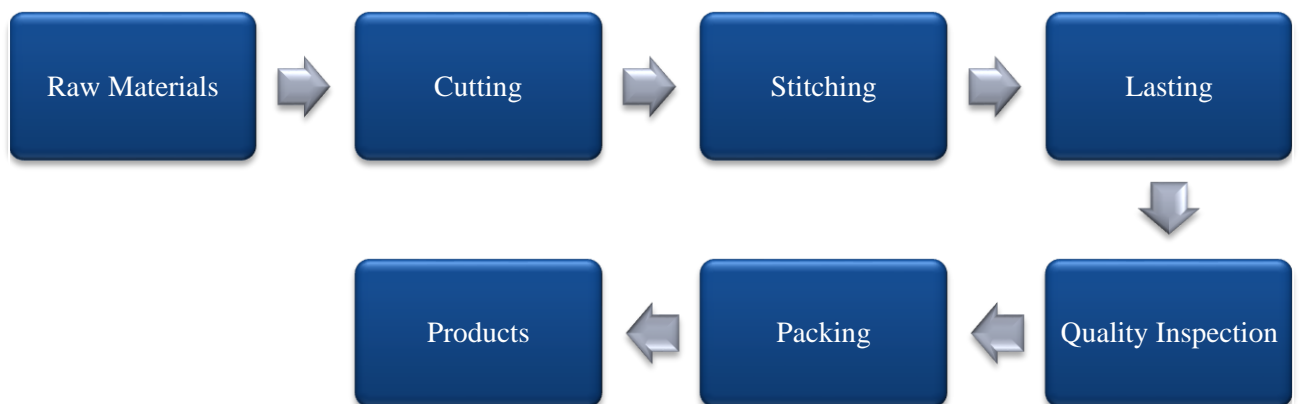
Factory Layout Drawing



Adjacent Map of Factory

Capacity of domestic water storage tank and fire safety water tank are 45900 gallons storage tanks respectively. The factory uses water about 393,967 gallons annually. The total estimated demand for fuel for generators is diesel 13816.92 liters per month. Estimated electricity usage is about 6916 units per month.

The main Raw Materials are leather, suede, synthetic, fiber, PVC, PE, Taping, Adhesive and etc. which imported from China and Taiwan. The main product of William (Myanmar) Industrial Company Limited is manufacturing of sport shoes which are exposed to American, Europe, Australia, Japan and Canada. Total production rate is from 2,400,000 pcs to 3,512,529 pcs for first 10 years.



Production Process



Product Photos

Brief Description of Surrounding Environment

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

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 5 May 2022. The overall conditions of air quality, water quality, soil quality, and noise levels are quoted from the project.

Item	Parameter
Air quality	(1) Sulfur dioxide (SO ₂), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO ₂), (4) PM ₁₀ and PM _{2.5}
Noise level	Indoor sound level (LAeq)

According to the resulting of monitoring, PM_{2.5} is a little bit more than the guideline limit and other permeters are within the guideline limit. Noise is a little bit more than the guideline limit.

Environmental Impact and Mitigation Measure

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

Evaluation and Perdition of Significant Impacts and mitigation measure for Operation Phase

Environmental Impact	Project Activities	Mitigation Measures
Operation Phase		
Air	Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission of smoke from emergency diesel generator and vehicle movement	To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. Ensuring vehicles, compressor and generator are well maintained. The factory has planted trees to reduce carbon emission and minimize air pollution
Soil	Engine oil leaks, spills at diesel storage and during fuel refueling	No mitigation measure
Water	Dormitory Cleaning and Kitchen	No mitigation measure
Noise and vibration	Generating noise from the production machinery	Should be built individual room like as generator room Low noise equipment should be used Should be provided the noise covering equipment or personal protective equipment (PPE)
Flora and fauna on terrestrial and aquatic life	Operation of the garment factory	No Mitigation Measure
Fire	Poor electrical installations Waste disposed area raw materials and chemical storage	To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. The emergency fire alarms are installed at the factory for alerting the workers in case of fire. The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
Occupational Safety	Accidental cases cause by operating machines. Unloading, cutting, and packaging activities. Accidental cases of thermic fluid heater	First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.
Health	Influx of people Noise from the generating of the emergency generators	Manage the drainage systems of the factory to prevent health risk of the workers. The maximum allowable noise level for workers is 90dB(A) for 8hours exposure a day. Thus, adequate protective noise impact measures in the form of ear

Environmental Impact	Project Activities	Mitigation Measures
		muffs/ear plugs to the workers working in high noise areas.
Solid waste	Residual pieces of fabric scraps from the production lines Waste from packaging materials Waste from kitchen, dormitory and office.	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 municipal and local buyers.
Liquid waste	Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory.	Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous waste	Used oil and lubricant discharged from the maintenance of vehicles and machines.	Proper inspection and maintenance in storage of hazardous waste. The hazardous wastes are transported by specially licensed carriers and disposed in a licensed facility
Natural Disaster (Earthquakes, Floods, landslides and cyclone)		Preserve relevant records and equipment for the subsequent inquiry into the cause and circumstances of the emergency
Decommissioning Phase		
Air pollution	Decommissioning of buildings and related materials Transportation of demolished materials	Spray water twice a day Cover mesh trap around the decommission area Install shading net about 2 meters above temporary fence of decommission area Carry broken material with cover by canvas.
Water pollution	Sewage form decommissioning workers Demolition machinery equipment	Systematically demolish the septic tanks.
Soil Contamination	Decommissioning of buildings and related materials Transportation of demolished materials	Manage the spillage of oil and diesel and sewage.
Noise Pollution	Decommission activities Transportation of demolished materials	Carry out the activities during day time. Maintain the machines and vehicles to reduce noise pollution. Provide the ear plugs to the workers.
Waste disposal	Demolished debris such as bricks, concrete materials	Recyclable materials and dispose to the define areas.
Hazardous waste	Used lubricants from decommissioning vehicles and machines	Manage the disposal way of hazardous waste.

Environmental Impact	Project Activities	Mitigation Measures
Occupational Health and Safety (Accidents, Injuries)	Decommissioning activities Transportation of demolished materials	Provide protective fencing or demarcation with tape at the boundaries of dangerous / hazardous zone and the appropriate warning signs, marking and safety signs and installation of the lost time injury notice board. Clean up excessive waste debris and liquid spills regularly. Use the third-party expert assisted by trained personnel to identify and remove hazardous materials.

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.

Environmental Management Action

The proposed project of environmental management plan, which need to made the PDCA plan especially Plan-Do-Check-Act cycle. In that plan, it includes not only reducing to the environmental and social-economic impact but also includes the environmental management plan and the monitoring plan. In this EMP to implement the health, safety and occupational for the industry, they need to create a team and to must be implemented that. The EMP for SCG has been prepared to address potential issues based upon discussion with factory management, workers, local community’s view, stakeholder consultation and from the site visit of experts. The EMP is additional to and compliments the factory’s safety management system. Environmental related works about the project is responsible by HSE manager. The following environmental issues that require environmental management plans based upon the potential impacts of activities by for SCG are as follows:

1. Air pollution/Dust Management Plan
 - The Factory has Planted Trees to reduce the carbon and minimize the air pollution
 - Workers are provided mask during working in any dusty area
 - 1,000,000 kyat per year
2. Noise Management
 - Building noise insulated generator room
 - Provide sufficient personal protective equipment (PPE) at the work place
 - All the related personal will be provided proper training about the relevant issues and ensure PPE wear during working in noisy area.
 - 100,000 kyat per year
3. Solid waste Management Plan
 - The solid wastes are stored properly and separately in a certain in proper manner
 - The daily domestic waste of workers hands over to YCDC waste collector to collect every day

- All related personal is provided proper training about the relevant issues.
- 50,000 kyat per month
- 4. Wastewater Management Plan
 - Ensure that drainage lines and sewage system of factory and the nearest public drainage are watertight and sufficient capacity
 - Regular check and maintain sewerage facility
 - Clean the Factory's drainage to avoid odor emission and to avoid the block of water flow
 - 800,000 kyat per year
- 5. Energy Consumption Management Plan
 - Used of energy saving devices must be installed
 - Ensure that good housekeeping measures such as turning off equipment and lights when not in use
 - 100,000 kyats per year
- 6. Water Consumption Management Plan
 - Install water meter for internal control of water consumption
 - All staff trains and makes aware conservation practices and proper methods of water use must be place in toilets and other areas of water consumption
 - Trees plantation surrounding the factory
 - 500000 kyats per year
- 7. Emergency Response Plan
 - Provision and inspection of firefighting equipment and fire hydrant system in all the sections
 - A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers
 - Workers are informed about what to do in earthquake and physics hazards. A medical team has been prepared for primary treatment (First Aid)
 - Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management
 - 1500000 Kyats
- 8. Corporate Social Responsible (CSR) Plan
 - Health Care – 0.5%
 - Nonprofit training– 1%
 - Employee Healthcare – 0.5%

Public Consulting Meeting

Public consultation meeting for William (Myanmar) Industrial Company Limited celebrated on social media. During the preparation of this report, the COVID-19 becomes serious in Myanmar. The Ministry of Health and Support declared to avoid gathering more than 5 people by closely contacting and to prevent spreading of disease. Thus, the present condition, the project's environmental condition and the management plans are through the social media of Myanwei Environmental Solution Company Limited Facebook page –

(https://drive.google.com/file/d/157sdurR-AP_RaVMMy_fwR0gbO_R4KtCpe/view?usp=drivesdk)
declared on 2nd August 2022.

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

Conclusion and Recommendation

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

This is recommended that;

- All appropriate environmental management measures detailed in this report, together with any other environmental management commitments should be implemented throughout the entire life of the factory
- Solid wastes and liquid wastes need to dispose according to Yangon municipal rules and regulation
- Workers should be provided proper training and it should be ensured that workers use PPE during factory operation area.
- Daily, monthly and annual action plan shall be formulated based on this IEE 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 IEE, effective implementation of IEE by the project proponent is essential. The proponent should abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

1. INTRODUCTION

Everyone wants to live in a place that's clean and healthy. That is why one of the world's primary concerns is the environment. As sad as it is, the world today is dying. The environment is slowly decaying, and it's all because of human negligence. Environmental Management Plan is required for ensuring sustainable development. It should not affect the surrounding environment adversely. The management plan presented. Which needs to be implemented by the proposed expansion of WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED. The Initial Environmental Examination 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. AIM OF INITIAL ENVIRONMENTAL EXAMINATION

- Provide environmental management plan that minimize the environmental impact of the works and identify those responsible for its implementation.
- Define the monitoring program, which assess the implementation.

1.2. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

An Environmental 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.

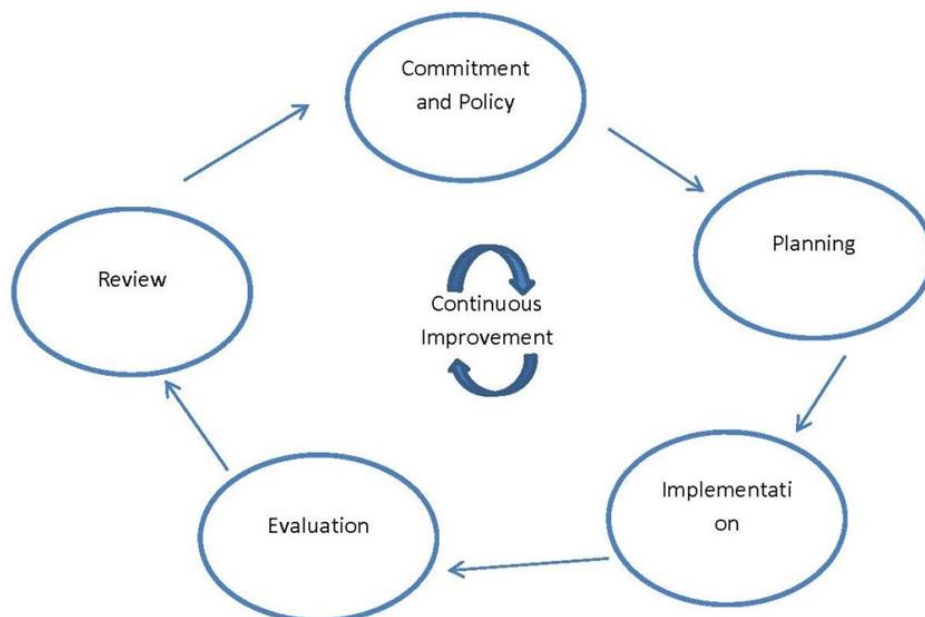


Figure 1-1 Continuous Improvement Circle

- **Commitment and Policy** – Top management commits to environmental improvement and establishes the organization’s environmental policy. The policy is the foundation of the EMS.
- **Planning** – An organization first identifies environmental aspects of its operations. Environmental aspects are those items, such as air pollutants or hazardous waste that can have negative impacts on people and the environment. An organization then determines which aspects are significant by choosing criteria considered most important by the organization. For example, an organization may choose worker health and safety, environmental compliance, and cost as its criteria. Once significant environmental aspects are determined, an organization sets objectives and targets. An objective is an overall environmental goal (e.g., minimize use of chemical X). A target is a detailed, quantified requirement that arises from the objectives (e.g., reduce use of chemical X by 25% by September 1998). The final part of the planning stage is devising an action plan for meeting the targets. This includes designating responsibilities, establishing a schedule, and outlining clearly defined steps to meet the targets.
- **Implementation** – An organization follows through with the action plan using the necessary resources (human, financial, etc.). An important component is employee training and awareness for all employees. Other steps in the implementation stage include documentation, following operating procedures, and setting up internal and external communication lines.
- **Evaluation** – A company monitors its operations to evaluate whether targets are being met. If not, the company takes corrective action.
- **Review** – Top management reviews the results of the evaluation to see if the EMS is working. Management determines whether the original environmental policy is consistent with the organization’s values. The plan is then revised to optimize the effectiveness of the EMS. The review stage creates a loop of continuous improvement for a company.

1.2.1. Institutional Requirement

WILLIAM (MYANMAR) INDUSTRIAL 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.

1.2.2. 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:

WILLIAM (MYANMAR) INDUSTRIAL 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 IEE 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 WILLIAM (MYANMAR) INDUSTRIAL 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.

1.2.3. 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 non-conformances with the IEE 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.

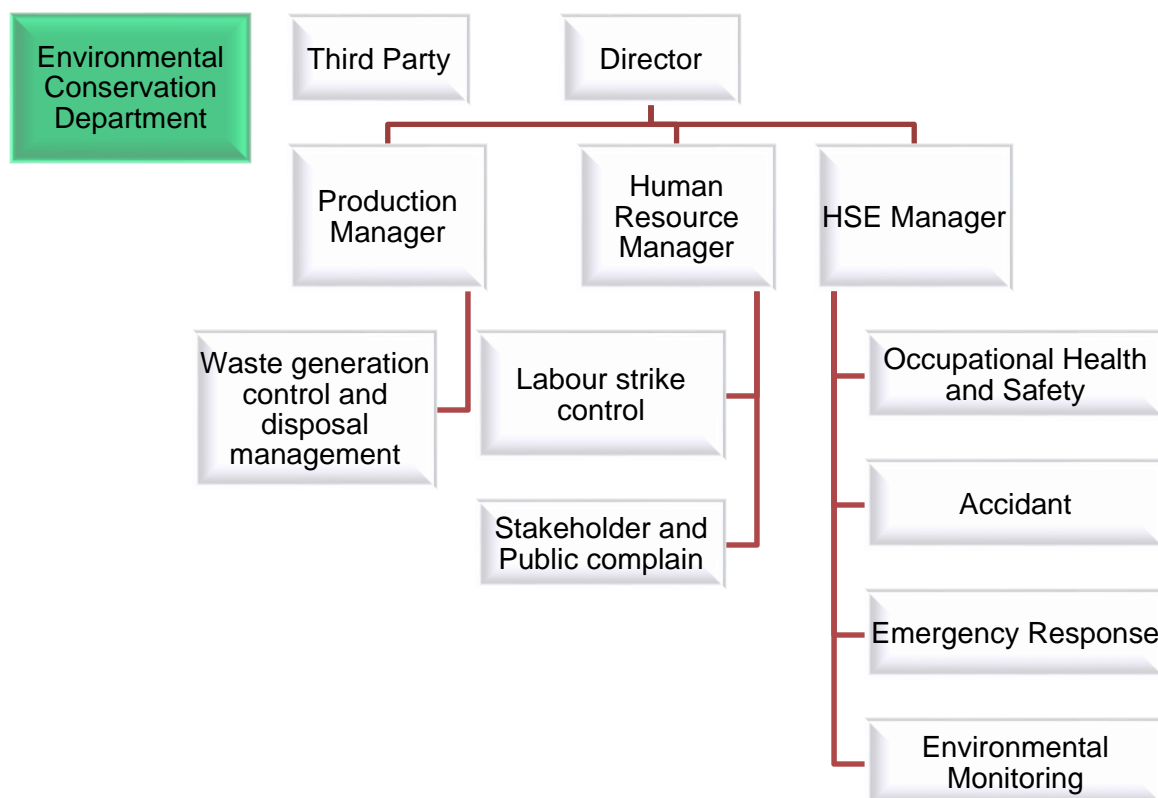


Figure 1-2 Organization Structure of Environmental Management Plan

Table 1-1 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Assisting the management in publicising and implementing corporate and local policies, objectives and programs

Roles	Responsibilities
	<ul style="list-style-type: none"> • Maintaining key environmental-related documents and information • Communicating/ liaising with the local authorities on environmental issues
HSE Officer	<p>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:</p> <ul style="list-style-type: none"> • 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.

1.3. PROJECT BACKGROUND

The project is new investment for manufacturing of High-Quality Shoes from Myanmar. The Yangon Region Investment Committee (YRIC) issues the project on 15th July 2020 with the Endorsement No. (YAKATA- 396/2020).

This report describes the findings of the Initial Environmental Examination (IEE) for the Manufacturing of Sports Shoes by WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED. The main objective of this report is to identify the major environmental impacts due to implementation of the project along with the effective measures to mitigate the potential adverse impacts.

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 Initial Environmental Examination (IEE) to meet the environmental assessment requirements of Notification No. Yaka- 1/3/4 (EIA) (1217/2020) on 6 April 2020. Therefore, WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED commissioned MYANWEI ENVIRONMENTAL SOLUTIONS CO.,LTD. (Myanwei) for IEE report study.

1.4. PROJECT PROPONENT PROFILE

The proposed factory is the 100% foreign investment by WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED with an estimated authorized capital of USD (5.915) millions. The project is new investment for manufacturing of shoes on Contract Manufacturing Process (CMP) basic company from China. The Yangon Region Investment Committee (YRIC) issues the project on July 2020 with the Endorsement No. (YGN- 396/2020). YRIC notified for the environmental approval and comments of the Ministry of the Natural Resources and Environmental Conservation (MONREC) on the proposed project and had approved the proposal for investment in manufacturing of on Cutting, Making and Packaging (CMP) basis under the name of WILLIAM (MYANMAR) INDUSTRIAL

COMPANY LIMITED. This is the information of project proponent from the MIC's registration that is describing in below Table 1-3 and summary of project investor information is presented in Table 1-2.

Table 1-2 Information of Investor

Name of Shareholder	Citizenship	Designation
Ms. Chao, Li-Ping	Taiwan	100%

Table 1-3 Salient features of the project

Type of Proposed Business	Manufacturing of Various Kinds of Sports Shoes on CMP Basis
Type of investment	100% foreign investment
Type of Share	Ordinary Share
Type of land	Industrial Land
Total land area	2.502 acres (16,187.44 square meter)
Land lease year	50 years
Construction period	2 year
Operation starting date	After Preparatory period (2) Year
Address	Plot No. A-8, Mingaladon Industrial Zone, Mingaladon Towhship, Yangon Region.
Contact person	Khin Htay Lynn (Manager) 09-422918989 khinhtaylynn246@gmail.com



Figure 1-3 Organization Chart of WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED

1.5. ENVIRONMENTAL CONSULTANT PROFILE

1.5.1. Scope of IEE Study

The IEE study firstly established baseline environmental setting within 100 meters of the project area, including existing conditions of air quality, water quality, noise, weather and local climate, waste, landscape and social assessment. The field studies were carried out by Myanwei Consulting farm 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.

1.5.2. The specific objectives of the IEE study are as follows:

- To conduct preliminary examination of the environmental consequences of the project
- To describe the existing environmental condition of the proposed project site
- To collect detailed information about used of process, technology, equipment and machinery for proposed project
- To assess the potential environmental impacts of the proposed project
- To develop environmental management plan (EMP) with site specific environmental mitigation measures and monitoring standards guidelines for the proposed project
- To carry our public consultants to address any issues in concern with implementation of this project

1.6. IDENTIFICATION OF IEE STUDY TEAM

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED prepares the Initial Environmental Examination (IEE) with the Environmental Management Plan (EMP) for the proposed project. 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.

Table 1-4 Member of IEE study team

Name	Qualification	Responsibility
Myanwei Environmental Solutions Co., Ltd.	Transition Consultant Registration Certificate No. 0069	EIA Organization No. 36-38, 9th floor (A), Grand Myay Nu Condo, Myay Nu Street, Sanchaung Township, Yangon, Myanmar. Website: www.myanweiconsulting.com Ph: 01-501221
Mr. Lin Htet Sein	MSc (Regional Geology) BSc (Hons) Geology Dip in Environmental Science Certificate in Environmental & Social Assessment Certificate in Environmental Stainability TCR No. 0048	Project Director, Environmental Consultant, Project Management

Name	Qualification	Responsibility
<p>Myanwei Environmental Solutions Co., Ltd.</p>	<p>Transition Consultant Registration Certificate No. 0069</p>	<p>EIA Organization No. 36-38, 9th floor (A), Grand Myay Nu Condo, Myay Nu Street, Sanchaung Township, Yangon, Myanmar. Website: www.myanweiconsulting.com Ph: 01-501221</p>
<p>Dr. Hein Lynn Aung</p>	<p>M.B, B.S (Yangon), Business Management (International Collage of Management Sydney, Australia)</p>	<p>Project Director, Public Health Consultant, Project Management</p>
<p>Ms. Wah Wah Zaw</p>	<p>B.E Material and Metallurgy Engineering Diploma in Environmental Planning and Management M.S Environmental Planning and Management</p>	<p>Senior Environmental Consultant, Social and Environmental Research, Quality control, Environmental Planning and Management</p>
<p>Ms. Khin Thu Zar Myint</p>	<p>B.E(Materials and Metallurgy) Dip in Environmental Planning and Management</p>	<p>Senior Environmental Consultant, Social Research, Public consultation, Social Economic Investigation</p>
<p>Mr. Kyaw Win Han</p>	<p>B.E. Chemical Engineering B. Tech Chemical Engineering</p>	<p>Junior Environmental Consultant, Team Leader of Baseline Survey, Monitoring Measure</p>
<p>Mr. Aung Kyaw Moe</p>	<p>B.E. Chemical Engineering B. Tech Chemical Engineering</p>	<p>Junior Environmental Consultant, Monitoring measure, Document Administration</p>
<p>Mr. Saw Yan Naung</p>	<p>B.E. Chemical Engineering B. Tech Chemical Engineering</p>	<p>Junior Environmental Consultant, Monitoring Measure, Document Administration</p>
<p>Mr. Myat Ko Ko</p>	<p>B.Sc (Hons) Geology M.Sc. Geology (Economic and Mining) Certificate of Environment Management Certificate of Geotechnical Engineering (Myanmar Geoscience Society)</p>	<p>Junior Environmental Consultant, Monitoring Measure, Document Administration</p>
<p>Mr. Kaung Sett Lwin</p>	<p>B.Sc (Hons) Geology Certificate of Geotechnical Engineering (Myanmar Geoscience Society)</p>	<p>Junior Environmental Consultant, Monitoring Measure, Document Administration</p>

2. POLICY, LEGAL AND INSTITUTIONAL FRAME WORK

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 FRAMEWORK

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

2.1.1. Laws and Regulations Related to Environmental and Social Considerations

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

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

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

<p>Provisions of Duties and Powers relating to the Environmental Conservation of the Ministry: Section 7</p>	<p>(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;</p> <p>(b) To prescribe categories of hazardous substances that may affect significantly at present or in the long run on the environment;</p> <p>(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;</p> <p>(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;</p> <p>(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;</p> <p>(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.</p>
<p>Chapter VI Environmental Quality Standards: Section10</p>	<p>The Ministry may, with the approval of the Union Government and the Committee, stipulate the following environmental quality standards:</p> <p>(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;</p> <p>(b) water quality standards for coastal and estuarine areas;</p> <p>(c) underground water quality standards;</p> <p>(d) atmospheric quality standards;</p> <p>(e) noise and vibration standards;</p> <p>(f) emissions standards;</p> <p>(g) effluent standards;</p> <p>(h) solid wastes standards;</p> <p>(i) other environmental quality standards stipulated by the Union Government.</p>
<p>Section 14</p>	<p>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.</p>
<p>Section 15</p>	<p>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.</p>
<p>Section 16</p>	<p>A person or organization operating business in the industrial estate or business in the SEZ or category of business stipulated by the Ministry:</p> <p>(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;</p> <p>(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;</p>

	(c) shall comply with the directives issued for environmental conservation according to the relevant industrial estate, SEZ or business.
Section 24	The project proponent has to allow relevant governmental organization or department to inspect whether performing is conformity with the terms and condition include in prior permission, stipulated by the ministry, or not.
Section 25	The project proponent has to comply with the terms and conditions include in prior permission.
Section 29	The project proponent has to abide by the stipulations included in the rules, regulations, by-law, order, notification and procedure, which are issued by said law.
Environmental Conservation Rules, 2014	
Rules 58	The Ministry shall form the EIA Report Review Body with the experts from the relevant Government departments, organizations.
Rules 59	The Ministry may assign duty to the Department to scrutinize the report of EIA prepared and submitted by any organization or person relating to EIA and report through the EIA Report Review Body.
Rules 61	The Ministry may approve and reply on the EIA report o EMP or EMP with the guidance of the Committee.
Sub-rule (a) of rule 68	The project proponent has to avoid emit, discharge or dispose the materials which can pollute to environment, or hazardous waste or hazardous material prescribed by notification in the place where directly or indirectly injure to public.
Sub-rule (b) of rule 68	The project proponent has to avoid performing to damage to ecosystem and the environment generated by said ecosystem.
Environmental Impact Assessment Procedure (December 2015)	
Objectives	<p>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.</p> <p>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</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The project proponent has to submit, as soon as possible, the failures of his or her responsibility, other implementation, ECC or EMP. If dangerous</p>

	<p>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.</p> <p>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.</p> <p>The project proponent has to prepare the monitoring report in accord with the rule 109.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The project proponent has to allow inspector to inspect the contractor and sub-contractor who implement on behalf of project, under paragraph 117.</p>
<p>Screening: Section 23</p>	<p>a) The project proponent shall submit the Project Proposal to the Ministry for Screening.</p> <p>b) The Ministry will send the Project Proposal to the Environmental Conservation Department to determine the need for environmental assessment.</p> <p>c) Following the preliminary Screening and verification that the Project Proposal contains all required documents and related materials, subject to Articles 8, 9, 10, 11, 26 and 27 the Department shall make a determination in accordance with Annex 1 ‘Categorization of Economic Activities for Assessment Purposes’, taking into account Article 25 and the additional factors listed in Article 28 in order to designate the Project as one of the following, and then submit it to the Ministry:</p> <p>i) An EIA Type Project, or</p> <p>ii) An EMP Type Project, or</p> <p>iii) A Non EMP or EIA Type, and therefore not required to</p>
<p>National Environmental Quality (Emission) Guidelines (NEQG) (December 2015)</p>	
<p>Objectives</p>	<p>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.</p>
<p>National Environmental Policy of Myanmar (2019)</p>	
<p>National Environmental Policy Vision & mission</p>	<p>Vision</p> <p>A clean environment, with healthy and functioning ecosystem, that ensures includes development and wellbeing for all people in Myanmar.</p> <p>Mission</p> <p>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.</p>
<p>Foreign Investment Law, 2012</p>	

Section 8	<p>(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.</p> <p>(b) Development of employment activities</p> <p>(l) Protection and conservation of the environment.</p> <p>(q) Appearing the required modern services for the Union and citizens.</p>
Section 17	<p>(a) To abide by the existing laws of the Republic of the Union of Myanmar.</p> <p>(b) To carry out the business by forming a company under the existing laws of Myanmar by the investor.</p> <p>(h) To carry out not to cause environmental pollution or damage in accord with existing laws in respect of investment business.</p> <p>(k) To carry out the systematic transfer of high technology relating to the business which are carried out by the investor to the relevant enterprises, departments or organizations in accord with the contract.</p>
Foreign Investment Rule, 2013	
Rule 54	<p>The promoter or investor shall:</p> <p>(a) comply with Environmental Protection Law in dealing with environmental protection matters related to the business;</p> <p>(b) shall carry out socially responsible investment in the interest of the Union and its people;</p> <p>(c) shall co-operate with authorities for occasional or mandatory inspection;</p> <p>(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;</p> <p>(e) shall enforce Safety and Health</p>
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)	<p>Section 15 - If the project proponent uses the owned vehicles the project owner has to ensure the insurance for the injured person.</p> <p>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.</p>
Payment of Wages Law (2016)	
Section 3 & 4	The project proponent has to pay the wages in accord with section 3 and 4 of said law,
Section 5	The project proponent has to submit with the agreements of employees & reasonable ground to the department if it is difficult to pay because of force majeure included in a natural disaster
Section 7-13	The project proponent has to abide by the provisions of section 7 to 13 in the chapter (3) in respect of deduction from wages.
Section 14	The project proponent has to pay the overtime fees, prescribed by law, to the employees who work over working hours

Yangon City Development Committee Law (2018)	
Section (317)	The proponent shall not block the natural river channel, change the course, and disrupt the water channel, filling with soil within the city boundaries without the consent of the Committee
Section (318)	The project proponent shall not construct buildings, factories, and industries without sewage, toilet, septic tanks, and wastewater treatment system
Section (322)	The project proponent is not allowed to make activities that will produce noise pollution, water pollution, air pollution, and soil pollution to impact the environment within the city's boundaries
The Amended Law for Factories Act, 1951 (2016)	
Hygiene in Working Environment: Section 3	Mentions responsibilities of employer and manager regarding waste disposal, ventilation, extreme temperature, dust and gas generation, minimum space for each worker, lighting, portable drinking water and toilets for employees.
Safety in Working Environment: Section 4	States responsibilities of employer and manager concerning with machine guarding, personal protective equipment, housekeeping, aisles and exits, chemical storage and fire protection system to avoid accident.
The Private Industrial Enterprise Law, 1990	
Basic Principles: Section 3	Private Industrial Enterprises 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 enterprises which are related to the industrial enterprise; (b) to acquire modern technical know-how for raising the efficiency of industrial enterprises 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 enterprises; (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	
<p>This law was enacted with the objectives of:</p> <ul style="list-style-type: none"> 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. <p>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.</p>	
Underground Water Act	
<p>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.</p>	
Myanmar Fire Brigade Law (2015)	
<p>The Pyidaungsu Hluttaw enacted this law by Law No.11/2015 on the date of 17th March, 2015 with the following objectives:</p> <ul style="list-style-type: none"> (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	<p>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:</p> <ul style="list-style-type: none"> 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	<p>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</p>
The Electricity Law (2014)	

<p>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.</p>	
<p>Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)</p>	
<p>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.</p>	
<p>The Social Security Law (2012)</p>	
<p>The Social Security Law, enacted in 2012, was amended the Social Security Act in 1954. It stipulates the formation and implementation of social security systems.</p>	
<p>Section 53(a)</p>	<p>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;</p>
<p>Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)</p>	
<p>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.</p>	
<p>Section 23</p>	<p>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.</p>
<p>Section 24</p>	<p>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.</p>
<p>Section 25</p>	<p>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.</p>
<p>Section 38</p>	<p>No employer shall fail to negotiate and coordinate in respect of the complaint within the prescribed period without sufficient cause.</p>
<p>Section 39</p>	<p>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.</p>
<p>Section 40</p>	<p>The project proponent has to not close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal</p>
<p>Section 51</p>	<p>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.</p>

Section 46	Any employer who violates any prohibition contained in sections 38 and 39 shall, on conviction, be punished with a fine for a minimum of one-lakh kyats.
The employment and skill development (2013)	
This law was enacted for safeguarding the right of workers or having skillful of workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. Employer shall conduct occupational training to enhance the skills of workers.	
Section 5	The project proponent has to appoint employees with the contract in line with the provision of section 5 of said law.
Section 14	Employer shall conduct occupational training to enhance the skills of workers who are to be employed as well as workers who are presently employed in accordance with the requirements of the enterprise and the policy of the Skills Development Agency.
The Worker's Compensation Act, 1923	It stipulates that employer is required to make payments to employees who become injured or who die in any accidents arising during and in consequence of their employment. Such compensation also must be made for diseases which arise as a direct consequence of employment, such as carpal tunnel syndrome.
The Payment of Wages Act, 1936	The Payment of Wage Act defines the payment obligation to the workers employed in the factories or railway administration. It stipulates the method of payment stating that the payment should be made in cash on a regular payday, and allows legal action against delayed payment or un-agreeable deduction
The Leave and Holidays Act (1951, partially revised in 2014)	This act has been used as the basic framework for leaves and holidays for workers with minor amendment in 2006 and 2014. This defines the public holidays that every employee shall be granted with full payment. It also defines the rules of leaves for workers including medical leave, earned leave and maternity leave
The Minimum Wage Law (2013)	The minimum wage law, passed in March 2013, was replaced the 1949 Minimum Wage Act. The law provides a framework for minimum wage determination: the presidential office establishing a tripartite minimum wage committee shall decide minimum wage with industrial variation based on a survey on living costs of workers possibly every two years. This also stipulates equal payment
Public Health Law (1972)	Chapter 2; Prevention of Public Health
Objectives	To ensure the public health include not only employees but also resident people and cooperation with the authorized person or organization of health department. This law focuses as follows The project owner has to cooperate with the authorized person or organization in line with the section 3 and 5 of said law. The project proponent has to abide by any instruction or stipulation for public health under the section 3 of said law. The project proponent has to allow any inspection, anytime, anywhere if it is needed under the section 5 of said law.
Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)	
Chapter 2 Prevention	4. When a Principal Epidemic Disease of a Notifiable Disease occurs; Immunization and other necessary measures shall be undertaken by the Department of Health, in order to control the spread thereof; 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

	<p>supervision and guidance of the Health Officer of the relevant area, undertake the responsibility of carrying out the following environmental sanitation measures;-</p> <p>Indoor, outdoor sanitation or inside the fence outside the fence sanitation; Well, ponds and drainage sanitation; Proper disposal of refuse and destruction thereof by fire; Construction and use of sanitary latrines; Other necessary environmental sanitation measures.</p>
Occupational Safety and Health Law (2019)	
Purpose:	To effectively implement measures related to safety and health in every industry and to set occupational safety and health standards;
Section-26 Sub-section (e)	The project proponent has to provide adequate and relevant personal protective equipment to workers free of charge and make them wear it during work so as not to expose workers to any serious occupational diseases or hazards.
Section-26 Sub-section (1)	The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards.
Section-30 Sub-section (a)	The worker shall wear or use at all times any protective clothes, equipment and tools provided by the employer for the purpose of safety and health.
Section-30 Sub-section (d)	The worker shall proper and systematic use any equipment and tools, machines, any parts of the machines, vehicles, electricity and other substances being used at the workplace.
Section-30 Sub-section (e)	The worker shall take reasonable care for the safety and health of himself/ herself and of other persons who may be affected by his/ her acts or omissions at work.
The law on Standardization	
Objectives	<p>The Objectives of this Law are as follows:</p> <ul style="list-style-type: none"> 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	<p>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:</p> <ul style="list-style-type: none"> warning suspending the certificate of certification for limited period cancelling the certificate of certification.

လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သောဝတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ (၂၀၁၈)	
ရည်ရွယ်ချက်	လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများကို စနစ်တကျပြုလုပ်ခြင်း၊ တင်သွင်းခြင်း၊ သယ်ယူခြင်း၊ သိုလှောင်ခြင်းနှင့် သုံးစွဲခြင်းတို့ပြုနိုင်ရန်၊ ယမ်းဘီလူးနှင့် ဆက်စပ်သုံးပစ္စည်းများ အသုံးပြုသည့် လုပ်ငန်းခွင်ဘေးအန္တရာယ် ကင်းရှင်း၍ လုံခြုံမှုရှိစေရန်၊ လုပ်ငန်းခွင်သုံး ပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများ ပြုလုပ်သုံးစွဲမှုများကို စနစ်တကျ ကြီးကြပ်နိုင်ရန်။
အခန်း ၇ တားမြစ်ချက်များ အမှတ် ၁၈	လိုင်စင်ရရှိသူနှင့် ခွင့်ပြုချက်ရရှိသူ မည်သူမျှ စစ်ဆေးရေးအရာရှိချုပ် သို့မဟုတ် စစ်ဆေးရေးအရာရှိ၏ စစ်ဆေးခြင်းကို ခံယူရန် ငြင်းပယ်ခြင်းမပြုရ။
အမှတ် ၁၉ (ခ)	ပုဒ်မ ၈ အရ ကာကွယ်ရေးဌာနကောင်စီ အမှုဆောင်အဖွဲ့၏ အတည်ပြုချက်မရရှိဘဲ လုပ်ငန်းခွင် ပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများကို ဖျက်ဆီးခြင်းမပြုရ။
အမှတ် ၁၉ (ဂ)	ဤဥပဒေအရ ထုတ်ပြန်သည့် နည်းဥပဒေ၊ စည်းမျဉ်း၊ စည်းကမ်း၊ အမိန့်ကြော်ငြာစာ၊ အမိန့်နှင့် ညွှန်ကြားချက်များနှင့်အညီ ဆောင်ရွက်ရန် ပျက်ကွက်ခြင်း မရှိစေရ။
The Motor Vehicles Law (2015)	
Objectives	When the constructions periods and if it is needed in operation and production period for all vehicles <ul style="list-style-type: none"> The project proponent has to promise to abide by the nearly all provisions of said law and rules, especially the provisions related to air pollution, noise pollution and life safety.
The Conservation of Water Resources and Rivers Law (2006)	
Aims	The aims of this Law are as follows: <ol style="list-style-type: none"> to conserve and protect the water resources and rivers system for beneficial utilization by the public; to smooth and safety waterways navigation along rivers and creeks; to contribute to the development of State economy through improving water resources and river system; to protect environmental impact.
Chapter 5 Prohibitions No. 8	No person shall: <ol style="list-style-type: none"> carry out any act or channel shifting with the aim to ruin the water resources and rivers and creeks. cause the wastage of water resources wilfully.
No. 10	No person shall anchor the vessels where vessels are prohibited from anchoring in the rivers and creeks.
No.11 (a)	No person shall: dispose of engine oil, chemical, poisonous material and other materials which may cause environmental damage, or dispose of explosives from the bank or from a vessel which is plying, vessel which has berthed, anchored, stranded or sunk.
No. 12	No person shall carry out growing of garden, digging, filling, silt trapping, closing pond, dyke building or erecting spur in the river-creek boundary, bank boundary and waterfront boundary without the permission of the relevant government department and organization.
No. 15	No person shall carry out the construction of switchback, dockyard, wet dockyard, water-tight dockyard, building of jetty, pier, landing stage or

	vessel landing by drainage in the river-creek boundary, bank boundary and waterfront boundary without the permission of the Directorate.
The Commercial Tax Law (1990) Amended 2014	
Chapter 5 Registration and Intimation of Commencement of Enterprise 11 (b)	Any Person who commences operation of a goods production enterprise or service enterprise shall furnish letter of intimation on the commencement of the operation as such to the relevant Township Revenue Officer as stipulated by regulations.
Chapter 6 Monthly Payment of Tax and Sending of Three-Monthly Return 12 (a)	Any person who has taxable proceed of sale or receipt from service within a year, shall pay due monthly tax within ten days after the end of the relevant month. Moreover, a three-monthly return shall be furnished to the relevant Township Revenue Officer within one month after the end of relevant three-month.
12 (b)	The Township Revenue Officer may intimate any person to pay due monthly tax and send three-monthly return if there is cause to consider that he has taxable proceed of sale or receipt from service within a year.
12 (c)	If it is failed to pay tax under sub-section (a) or (b), or if there is cause to consider that the tax paid is less than the tax payable, the Township Revenue Officer may, based on the information received, estimate and claim the tax payable or the additional tax payable.
12 (d)	The tax paid under sub-section (a), (b) or (c) shall be set-off from the tax due in the assessment.
12 (e)	The tax payable on goods imported under sub-section (c) of section 4 of the Law shall be collected together with the customs duties by the Customs Department in accord with the manner of collecting customs duties.
Law and Regulation	Description
National Environmental Policy of Myanmar, (Notification No. 26/94 dated 5 December 1994)	To achieve harmony and balance between socioeconomic, natural resources and environment through the integration of environmental considerations into the development process enhancing the quality of the life of all its citizens.
Constitution 2008	
Section 37, (a)	The Union is the ultimate owner of all lands and all-natural resources above and below the ground, above and beneath the water and in atmosphere in the Union.
Section 37, (b)	The Union shall permit citizens rights of private property, right of inheritance, right of private initiative and patent in accord with the laws.
Section 372	The Union guarantees the right to ownership, the use of property and the right to private invention and patent in the conducting of business if it is not contrary to the provisions of this Constitution and the existing laws.
Section 45	The Union shall protect and conserve natural environment.
Section 390, (a), (b), (c), (d)	Every citizen has the duty to assist the Union in preserving and safeguarding the cultural heritage, conserving the environment, striving for the development of human resources, and protecting and preserving the public property.
Environmental Conservation Law, 30 March 2012	
Objectives	to contract a healthy and clean environmental and to conserve natural and cultural heritage for the benefit of present and future generations; to maintain the sustainable development through effective management of

	natural resources and to enable to promote international, regional and bilateral cooperation in the matters of environmental conversation.
Section 3	<p>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;</p> <p>(d) to reclaim ecosystems as may be possible which are starting to degenerate and disappear;</p> <p>(e) to enable to manage and implement for decrease and loss of natural resources and for enabling the sustainable use beneficially;</p>
<p>Chapter IV Provisions of Duties and Powers relating to the Environmental Conservation of the Ministry: Section 7</p>	<p>(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;</p> <p>(b) To prescribe categories of hazardous substances that may affect significantly at present or in the long run on the environment;</p> <p>(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;</p> <p>(d) prescribing environmental quality standards including standards on emissions, effluents, solid wastes, production procedures, processes and products for conservation and enhancement of environmental quality;</p> <p>(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;</p> <p>(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;</p> <p>(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.</p>
<p>Chapter VI Environmental Quality Standards: Section 10</p>	<p>The Ministry may, with the approval of the Union Government and the Committee, stipulate the following environmental quality standards:</p> <p>(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;</p> <p>(b) water quality standards for coastal and estuarine areas;</p> <p>(c) underground water quality standards;</p> <p>(d) atmospheric quality standards;</p> <p>(e) noise and vibration standards;</p> <p>(f) emissions standards;</p> <p>(g) effluent standards;</p> <p>(h) solid wastes standards;</p> <p>(i) other environmental quality standards stipulated by the Union Government.</p>
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.
Chapter X Prior Permission Section 24	The Ministry may, in issuing the prior permission, stipulate terms and conditions relating to environmental conservation. It may conduct inspection whether or not it is performed in conformity with such terms and conditions or inform the relevant Government departments, Government organizations to carry out inspections.
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.
Chapter XIII Offences and Penalties Section 32	Whoever violates any prohibition contained in the rules, notifications, orders, directives and procedures issued under this Law shall, on conviction, be punished with imprisonment for a term not exceeding one year, or with fine, or with both.
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 o 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.
Chapter XIII Prohibitions Section 69	(a) Any person shall not emit, cause to emit, dispose, cause to dispose, pile and cause to pile, by any means, the pollutants to environment and the hazardous waste or hazardous material stipulated by notification under the Law and any of these rules at any place which may affect the public directly or indirectly. (b) Any person shall not carry out the actions which can be damaged to natural environment which is changing due to ecosystem and such system, except the permission of the relevant Ministry in order to the interest of the public.
Environmental Impact Assessment Procedure, December 2015	
Objectives	The project proponent has to be liable for all adverse impacts caused by doing or emitting of project owner or contractor, sub-contractor, officer,

	<p>employee, representative or consultant who is appointed or hired to perform on behalf of project owner, under sub-paragraph (a) of paragraph 102.</p> <p>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</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The project proponent has to prepare the monitoring report in accord with the rule 109.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The project proponent has to allow inspector to inspect the contractor and sub-contractor who implement on behalf of project, under paragraph 117.</p>
<p>Screening: Section 23</p>	<p>a) The project proponent shall submit the Project Proposal to the Ministry for Screening.</p> <p>b) The Ministry will send the Project Proposal to the Environmental Conservation Department to determine the need for environmental assessment.</p>

	<p>c) Following the preliminary Screening and verification that the Project Proposal contains all required documents and related materials, subject to Articles 8, 9, 10, 11, 26 and 27 the Department shall make a determination in accordance with Annex 1 = Categorization of Economic Activities for Assessment Purposes', taking into account Article 25 and the additional factors listed in Article 28 in order to designate the Project as one of the following, and then submit it to the Ministry:</p> <p>i) An EIA Type Project, or ii) An IEE Type Project, or iii) A Non IEE or EIA Type, and therefore not required to</p>
<p>CHAPTER VIII. Monitoring Section 102</p>	<p>The monitoring reports shall include:</p> <p>a) documentation of compliance with all Conditions; b) progress made to date on implementation of the EMP against the submitted implementation schedule; c) difficulties encountered in implementing the EMP and recommendations for remedying those difficulties and steps proposed to prevent or avoid similar future difficulties; d) number and type of non-compliance with the EMP and proposed remedial measures and timelines for completion of remediation; e) accidents or incidents relating to the occupational and community health and safety, and the environment; and f) monitoring data of environmental parameters and conditions as committed in the EMP or otherwise required</p>
<p>Section 103</p>	<p>Within ten (10) days of completing a monitoring report as contemplated in Article 97 and Article 98 in accordance with the EMP schedule, the Project Proponent shall make such report (except as may relate to National Security concerns) publicly available on</p> <p>28 the Project's website, at public meeting places (e.g. libraries, community halls) and at the Project offices. Any organization or person may request a digital copy of a monitoring report and the Project shall, within ten (10) days of receiving such request, submit a digital copy via email or as may otherwise be agreed upon with the requestor</p>
<p>Section 104</p>	<p>The Ministry has the right, using its own officers at national, regional, state, Nay Pyi Taw Union Territory and/or local offices, the services of any consultant, or both, to conduct monitoring and inspections of a Project and activities related thereto in order to control and determine compliance by the Project with all applicable environmental and socio-economical requirements and, where possible, to prevent violations of the Project's obligations. The Ministry may also, for the implementation of monitoring and inspections, enlist the assistance of other relevant government departments and organizations.</p>
<p>Section 105</p>	<p>If, upon inspection, the Ministry identifies any non-compliance with the EMP or Conditions in the ECC, the Ministry may require the Project Proponent to undertake remedial measures and/or may impose penalties as provided for in this Procedure</p>
<p>Section 106</p>	<p>For purposes of monitoring and inspection, the Project Proponent shall grant to the Ministry and/or its representatives, at any time during normal working hours and from time to time as and when the Ministry may reasonably require, access to the Project's offices and to the Project site and any other location at which the Project activities or activities related to the Project are performed.</p>
<p>Section 107</p>	<p>In carrying out any inspection, the Ministry may take photographs and make other audio and video recordings of any type, take soil, sediment, water, and air samples, and examine computers, copy documents including digital files, interview persons, and carry out any other investigation which the</p>

	Ministry believes to be necessary or appropriate. The Ministry, as it deems necessary, may carry out such inspection in coordination with any other ministries.
Section 108	In the event of an emergency, or where, in the opinion of the Ministry, there is or may exist a violation or risk of violation of the compliance by the Project with all applicable environmental and social requirements, the Project shall grant full and immediate access to the Ministry at any time as may be required by the Ministry, including outside normal working hours.
Section 109	The Ministry's inspections may include without limitation sites, facilities, vehicles, computers, archives, documents and all other forms and types of media and information storage, and persons.
Section 110	The Project Proponent shall further ensure that the Ministry's rights of access hereunder shall extend to access by the Ministry to the Project's contractors and subcontractors
Section 113	The Ministry shall indicate the manner in which environmental obligations are not being complied with by the Project Proponent, and shall give the Project a specified time period (determined by the Ministry to be reasonable under the circumstances) within which to bring the Project into compliance.
Section 115	All costs of the Ministry to conduct inspection and monitoring of the Project shall be borne by the Project Proponent. Such costs shall not exceed that which is necessary to ensure the Project's compliance with the Project commitments as set out in the EMP and in the ECC.
Section 117	The Ministry may require that Projects and other economic activities that derive from such policy, strategy, development plan, framework or program and which have been required to undertake a study to identify and assess the potential environmental and social impacts (as stipulated above) shall be developed and implemented (sited, designed, constructed and operated) in accordance with the environmental and social management and monitoring framework of such policy, strategy, development plan, framework or program.
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	<p><u>Vision</u> A clean environment, with healthy and functioning ecosystem, that ensures includes development and wellbeing for all people in Myanmar.</p> <p><u>Mission</u> To establish national environmental policy principle for guiding environmental protection and sustainable development and for mainstreaming environmental consideration into all policies, laws, regulation, plans, strategic, programmes and projects in Myanmar.</p>
Foreign Investment Law, 2012	
Section 8	<p>(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.</p> <p>(b) Development of employment activities</p> <p>(l) Protection and conservation of the environment.</p> <p>(q) Appearing the required modern services for the Union and citizens.</p>
Section 17	(a) To abide by the existing laws of the Republic of the Union of Myanmar.

	<p>(b) To carry out the business by forming a company under the existing laws of Myanmar by the investor.</p> <p>(h) To carry out not to cause environmental pollution or damage in accord with existing laws in respect of investment business.</p> <p>(k) To carry out the systematic transfer of high technology relating to the business which are carried out by the investor to the relevant enterprises, departments or organizations in accord with the contract.</p>
<p>Foreign Investment Rule, 2013</p>	
<p>Rule 54</p>	<p>The promoter or investor shall:</p> <p>(a) comply with Environmental Protection Law in dealing with environmental protection matters related to the business;</p> <p>(b) shall carry out socially responsible investment in the interest of the Union and its people;</p> <p>(c) shall co-operate with authorities for occasional or mandatory inspection;</p> <p>(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;</p> <p>(e) shall enforce Safety and Health</p>
<p>Myanmar Investment Law, 2016</p>	
<p>Chapter II Objective Section 3</p>	<p>The objectives of this Law are as follows:</p> <p>(a) to develop responsible investment businesses which do not cause harm to the natural environment and the social environment for the interest of the Union and its citizens;</p> <p>(b) to protect the investors and their investment businesses in accordance with the law;</p> <p>(c) to create job opportunities for the people;</p> <p>(d) to develop human resources;</p> <p>(e) to develop high functioning production, service, and trading sectors.</p> <p>(f) to develop technology, agriculture, livestock and industrial sectors;</p> <p>(g) to develop various professional fields including infrastructure around the Union;</p> <p>(h) to enable the citizens to be able to work alongside with the international community;</p> <p>(i) to develop businesses and investment businesses that meet international standards.</p>
<p>Chapter XIII Employment of Staff and Workers Section 51</p>	<p>The investor:</p> <p>(a) may appoint of any citizen who is a qualified person as senior manager, technical and operational expert, and advisor in his investment within the Union in accordance with the Laws;</p> <p>(b) shall appoint them to replace, after providing for capacity building programs in order to be able to appoint citizens to different level positions of management, technical and operational experts, and advisors;</p> <p>(c) shall appoint only citizens for works which does not require skill;</p> <p>(d) shall appoint skilled citizen and foreign workers, technicians, and staff by signing an employment contract between employer and employee in accordance with the labor laws and rules;</p> <p>(e) shall ensure to obtain the entitlements and rights in the labor laws and rules, including minimum wages and salary, leave, holiday, overtime fee, damages, compensation of the workman, social welfare, and other</p>

	<p>insurance relating to workers in stipulating the rights and duties of employers and employees and occupational terms and conditions in the employment contract;</p> <p>(f) shall settle disputes arising among employers, among workers, between employers and workers, and technicians or staff in the investment in accordance with the applicable laws.</p>
<p>Chapter XVI Responsibilities of Investors Section 65</p>	<p>The Investor:</p> <p>(f) shall not make any significant alteration of topography or elevation of the land on which he is entitled to lease or to use, without the approval of the Commission;</p> <p>(g) shall abide by applicable laws, rules, procedures and best standards practiced internationally for this investment so as not to cause damage, pollution, and loss to the natural and social environment and not to cause damage to cultural heritage;</p> <p>(i) shall close and discontinue the investment only after payment of compensation to employees in accordance with applicable laws for any breach of employment contracts, closure of investment, sale and transfer of investment, discontinuation of investment, or reduction of workforce;</p> <p>(j) shall pay wages and salaries to employees in accordance with applicable laws, rules, procedures, directives and so forth during the period of suspension of investment for a credible reason;</p> <p>(k) shall pay compensation and indemnification in accordance with applicable laws to the relevant employee or his successor for injury, disability, disease and death due to the work;</p> <p>(l) shall supervise foreign experts, supervisors and their families, who employ in their investment, to abide by the applicable laws, rules, orders and directives, and the culture and traditions of Myanmar;</p>
<p>Chapter XVII Insurance Section 73</p>	<p>The investor shall insure the types of insurance stipulated in the provision of the rules at any insurance enterprise which is entitled to carry out insurance businesses within the Union.</p>
Myanmar Investment Rules, 2017	
<p>Rule 202</p>	<p>The project proponent has to comply with the conditions of the permit issued by the MIC and applicable laws when making the investment</p>
<p>Rule 203</p>	<p>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</p>
<p>Rule 206.</p>	<p>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</p>
<p>Myanmar Insurance Law (1993)</p>	<p>Section 15 - If the project proponent uses the owned vehicles the project owner has to ensure the insurance for the injured person.</p> <p>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.</p>
The Export and Import Law (2012)	
<p>Chapter II Objectives Section 3</p>	<p>The objectives of this law are as follows:</p> <p>a) To enable to implement the economic principles of the State successfully.</p> <p>b) To enable to lay down the policies relating to export and import that supports the development of the State.</p>

	<p>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.</p> <p>d) To cause to be streamlined and speedy in carrying out the matters relating to export and import.</p>
Chapter IV Prohibitions Section 5	No persons shall export or import restricted, prohibited and banned goods.
Section 6	Without obtaining license, no person shall export or import the specified goods which are to obtain permission.
Section 7	A person who obtained any license shall not violate the conditions contained in the license.
Chapter V Offences and penalties Section 8	Whoever violates the prohibition contained in section 5 or section 6, on conviction, shall be punished with imprisonment for a term not exceeding three years or with fine or with both.
Section 9	A person who obtained any permit violates the prohibition contained in section 7, on conviction, shall be punished with imprisonment for a term not exceeding three years or with fine or with both.
Section 10	A person attempts to commit or abets in the commission of any offence contained in this Law shall be punished in the same manner as if he had been committed such offence and the exhibits shall also be confiscated.
Myanmar Insurance Law (1993)	
Chapter II Establishment and Aim Section 4	<p>The Myanmar Insurance is established with the following aims: -</p> <p>social and economic losses which the people may encounter, due to common perils;</p> <p>(b) to promote the habit of savings individually by effecting life assurance, thus contributing to the accumulation of resource, of the State;</p> <p>(c) to win the trust and confidence of the people in the insurance system by providing effective insurance safeguards which may become necessary in view of the social and economic developments.</p>
Chapter VI Effecting Insurance and Granting of Benefits Section 15	Owners of motor vehicles shall effect compulsory Third Party Liability Insurance with the Myanmar Insurance.
Section 16	An entrepreneur or an organization operating an enterprise which may cause loss to State-owned property or which may cause damage to the life and property of the public or which may cause pollution to the environment shall effect compulsory General Liability Insurance with the Myanmar Insurance.
The Commercial Tax Law (1990) Amended 2014	
Chapter 5 Registration and Intimation of Commencement of Enterprise Article 11 (b)	Any Person who commences operation of a goods production enterprise or service enterprise shall furnish letter of intimation on the commencement of the operation as such to the relevant Township Revenue Officer as stipulated by regulations.
Chapter 6 Monthly Payment of Tax and Sending of Three-Monthly Return Article 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.
Article 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.
Article 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.
Article 12 (d)	The tax paid under sub-section (a), (b) or (c) shall be set-off from the tax due in the assessment.
Article 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.
The Amended Law for Factories Act, 1951 (Amended in 2016)	
Hygiene in Working Environment: Section 3	Mentions responsibilities of employer and manager regarding waste disposal, ventilation, extreme temperature, dust and gas generation, minimum space for each worker, lighting, portable drinking water and toilets for employees.
Safety in Working Environment: Section 4	States responsibilities of employer and manager concerning with machine guarding, personal protective equipment, housekeeping, aisles and exits, chemical storage and fire protection system to avoid accident.
The Private Industrial Enterprise Law, 1990	
Chapter II Basic Principles Section 3	Private Industrial Enterprises 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 enterprises which are related to the industrial enterprise; (b) to acquire modern technical know-how for raising the efficiency of industrial enterprises 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 enterprises; (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.
Chapter III Registration of Private Industrial Enterprises Section 4	(a) Any person desirous of conducting any private industrial enterprise; (b) Any person conducting any private industrial enterprise on the day this Law is enacted; by using any type of power which is three horsepower and above or manpower of ten wage-earning workers and above shall register under this Law.
Chapter VI Duties and Rights of the Entrepreneur Section 13	The duties of the entrepreneur are as follows: - (b) shall abide by the terms and conditions of the registration certificate; (l) shall shift the place of enterprise, change the nature of enterprise, amalgamate enterprises and split up enterprises only with the approval of the Directorate; (g) shall abide by the orders and directives issued from time to time by the Ministry and the Directorate;
The Prevention of Hazard from Chemical and Related Substances Law, 2013	

<p>Chapter II Aims Section 3</p>	<p>This law was enacted with the objectives of:</p> <ul style="list-style-type: none"> 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. <p>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.</p>
<p>Section 15</p>	<p>A person who has obtained a licence, before starting the respective chemical and related substances business: -</p> <ul style="list-style-type: none"> (a) shall be inspected for the safety and the power of resistance of the machinery and equipment by the respective Supervisory Board and Board of Inspection; (b) shall be attended the person who serve in the work to the respective foreign trainings or the trainings and the expert trainings on prevention of hazard from the chemical and related substances opened by the government department and the government organizations.
<p>Section 16</p>	<p>A person who has obtained a licence: -</p> <ul style="list-style-type: none"> (a) shall abide the licence regulations; (b) shall perform to abide strictly the instructions for being safety in using the chemical and related substances by himself and also the persons who serve the work; (c) shall keep the required safety equipment enough in the chemical and related substances businesses, furthermore shall grant the personal protection equipment and dresses free of charge to the working persons; (d) shall make the course of training and study and instruction if necessary to the working persons for using the occupational safety equipment, the personal protection equipment and the dresses systematically in the chemical and related substances business; (e) shall be inspected by the respective Supervisory Board and Boards of Inspection in respect of whether or not the hazard may impact on the Human Being and Animals' health and the environment; (f) shall make medical checkup the working persons who will work in the chemical and related substances business and shall permit to serve in that work after obtaining the recommendation that his health is suitable for that work. This medical checkup records shall be kept systematically; (g) shall send the copy of informative letter of the permission to the respective Department of Township Administration, if the hazardous chemical or related substances are permitted to store; (h) shall acquire in advance the guidance and agreement of the respective Department of Fire Brigade, if the business that is worried to fire hazard is operated by using the fire hazard substances or the explosive substances; (i) shall transport only the permitted amount of the chemical and related substances in accordance with the prescriptive stipulations, if they are transported in local;

	<p>(j) shall take the permission from the Central Supervisory Board if the chemical and related substance is altered and transferred from one place to any other place which contained in the license;</p> <p>(k) shall abide and perform in accordance with the related environmental laws not to impact and damage to the environment in operating the chemical and related substances business.</p>
Section 17	A person who has obtained a licence, shall put the insurance in accordance with the prescriptive stipulations to be able to pay the compensation, if the impact and damage is occurred on the Human Being and Animals or the environment in respect of the chemical and related substances businesses.
Section 22	A person who has obtained the registration certificate shall abide the regulations consisted in the registration certificate furthermore shall also abide the order and instructions issued occasionally by the Central Supervisory Board.
Chapter IX Hazard Control and Decrease Section 27	<p>A person who has obtained the licence to be complied the following matters to control and decrease the hazard of the chemical and related substances: -</p> <p>(a) classifying the hazard level to protect in advance the hazard according to the properties of the chemical and related substances;</p> <p>(b) expressing the Material Safety Data Sheet and Pictogram;</p> <p>(c) providing the safety equipment, the personal protection equipment to protect and decrease the accident and attending to the training to be used systematically;</p> <p>(d) performing in accordance with the stipulations in respect of transporting, possessing, storing, using, discharging the chemical and related substances;</p>
Petroleum and Petroleum Product Law (2017)	
Chapter II Objective Section 3	<p>The Objectives of this law are as follows:</p> <p>a.to carry out the petroleum and petroleum product businesses activities systematically in accordance with the provisions of the law, stipulated standards, procedures and conditions;</p> <p>b.to enable the petroleum and petroleum product business activities to carry out safely without environmental impact;</p> <p>c.to establish free and fair competition in carrying out petroleum and petroleum product business activities;</p> <p>d.to secure energy requirement and energy security of the Union;</p> <p>e.to obtain tax revenue of the Union</p>
Chapter IV Application for Licence, Issue of Permit, Determining Conditions to be abided by, and Supervision Section 9	<p>The Ministry of Transport and Communications shall carry out the following functions relating to any petroleum and petroleum product;</p> <p>a. issuing licence to vehicles, vessels and barges that carry any petroleum and petroleum product;</p> <p>b. determining period, form, conditions, means of applying for licence, permitting authority and fees to be assessed, for licences under subsection (a);</p> <p>c. determining and supervision on ports for vessels and barges that carry out import, export, and transport by water in accord with procedures;</p> <p>d. taking action, as necessary, in accordance with the existing laws if it occurs spill or accident in carrying out import, export, transport, and sale and distribution of petroleum and petroleum product by water;</p> <p>e. determining procedures and conditions to be abided by in carrying out transport business except transport by pipeline.</p>

Section 10	<p>The Ministry of Natural Resources and Environmental Conservation shall carry out the following functions relating to any petroleum and petroleum product;</p> <p>a. issuing licence for the right to store for the storage tanks and warehouses;</p> <p>b. issuing transport permit for the vehicles, vessels and barges that shall carry any petroleum and petroleum product;</p> <p>c. determining the period, form and terms and conditions, manners of applying licence, permitting authority and fees to be assessed, for licence under subsection (a) and permit under subsection (b);</p> <p>d. if it occurs environmental impacts in carrying out petroleum and petroleum product business activities, taking action, as necessary, in accordance with the existing laws of on-site inspection;</p> <p>e. determining, in coordination with ministries concerned, procedures and conditions relating to standard and quality of storage tanks and warehouse, and tanks of vehicles, vessels and barges that carry any petroleum and petroleum product.</p>
Section 11	<p>On all receptacles containing any dangerous petroleum and petroleum product, the warning sign of danger by stamping, embossing, painting, printing or any other means shall be expressed. If it is impossible to express as such, similar warning signs of the nature of danger of gasoline, spirit or petroleum shall be expressed in writing at the ostensible place in salient words or signs near the receptacle.</p>
Chapter VI Prohibition Section 31	<p>Any licensee:</p> <p>a. shall not violate any prohibition contained in the rules, regulations, bye-laws, notifications, orders, directives, procedures and conditions or fail the duty to implement;</p> <p>b. shall not use a receptacle and transport vehicles and pipelines that contains any dangerous petroleum and petroleum product without saliently mentioning in writing of warning signs;</p> <p>c. shall not import, transport, store and sell and distribute the dangerous petroleum and petroleum product, or non-dangerous petroleum and petroleum product except by the means stipulated in this law;</p> <p>d. shall not have the right to carry out without undertaking the environmental impacts, in operating petroleum and petroleum product business activities;</p> <p>e. shall not distribute and sell petroleum and petroleum products which do not fulfill or are not in conformity with the standard, quality and measurement.</p>
Industrial Use Explosive Substances Law, 2018	
Objective:	<p>The objectives of Industrial Use Explosive Substances Law (2018) are as follow:</p> <p>(a) to make, import, transport, store and use of exploiting materials that explode in the workplace must be carefully handle and use.</p> <p>(b) to take care of safety in the workplace which use yarns and accessories</p> <p>(c) to properly supervise the use of explosive materials in the workplace.</p>
Chapter 7 Prohibitions Article 18	<p>Any license holder shall not be refused to perform the inspection of the inspector or the inspector general.</p>
Article 19 (b)	<p>Under Section 8, any explosive materials shall not be destroyed materials without the approval of the Defense Ministry's Executive Board.</p>
Article 19 (c)	<p>Rules and Regulations, orders, disciplines, instructions issued under this law must not fail to act.</p>

The Law on Standardization (2014)	
Chapter (II) Objectives Section 3	The objectives of this Law are as follows: (a) to enable to determine Myanmar Standards; (b) to enable to support export promotion by enhancing quality of production organizations and their products, production processes and services; (c) to enable to protect the consumers and users by guaranteeing imports and products are not lower than prescribed standard, and safe from health hazards; (d) to enable to support protection of environment related to products, production processes and services from impact, and conservation of natural resources; (e) 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; (f) to support on establishing the ASEAN Free Trade Area and to enable to reduce technical barriers to trade. (g) 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
Chapter (VI) Application for and Issue of Certification Section 17	A person desirous of obtaining certificate of certification shall apply to the department and organization which has obtained the accreditation.
Chapter (VII) Taking Action by Committee Section 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 orders: (a) warning; (b) suspending the certificate of certification for limited period; (c) cancelling the certificate of certification
Chapter (IX) Offences and Penalties Section 26	If any person who obtained certificate of certification uses standardization mark on the product which is not in conformity with the relevant standard or relating to service shall be punished with imprisonment for a term not exceeding one year or with fine not more than one million Kyats or with both.
The Labour Organization Law (2011)	
Chapter V Rights and Responsibilities of the Labour Organization Section 17	The labour organizations shall have the right to carry out freely in drawing up their constitution and rules, in electing their representatives, in organizing their administration and activities or in formulating their programmes. The Labour Organizations have the right to negotiate and settle with the employer if the workers are unable to obtain and enjoy the rights of the workers contained in the labour laws and to submit demands to the employer and claim in accord with the relevant law if the agreement cannot be reached.
Section 18	The labour organization has the right to demand the relevant employer to re-appoint a worker if such worker is dismissed by the employer and if there is cause to believe that the reasons of such dismissal were based on labour organization membership or activities, or were not in conformity with the labour laws.

Section 19	The labour organizations have the right to send representatives to the Conciliation Body in settling a dispute between the employer and the worker. Similarly, they have the right to send representatives to the Conciliation Tribunals formed with the representatives from the various levels of labour organizations.
Section 20	In discussing with the Government, the employer and the complaining workers in respect of worker's rights or interests contained in the labour laws, the representatives of the labour organization also have the right to participate and discuss.
Section 21	The labour organizations have the right to participate in solving the collective bargains of the workers in accord with the labour laws.
Section 22	The labour organizations shall carry out peacefully in carrying out holding of meetings, going on strike and carrying out other collective activities in accord with their procedures, regulations, by-laws and any directives prescribed by the relevant Labour Federation.
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
The Pyidaungsu Hluttaw hereby enacts this Law for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly.	
The Social Security Law (2012)	
The Social Security Law, enacted in 2012, was amended the Social Security Act in 1954. It stipulates the formation and implementation of social security systems.	
Chapter II Objectives Section 3	The objectives of this Law are as follows: (a) to support the development of the State's economy through the development of production by causing to enjoy more security in social life and health care by the workers who are major productive force of the State by the collective guaranty of the employer, worker and the State; (b) to enjoy more security in social life and medical care by the public by effecting their insurance voluntarily; (c) to raise public confidence upon the social security scheme by providing benefits which are commensurate with the realities; (d) to have the right to draw back some of the contributions paid by the employers and the workers as savings, in accord with the stipulations; (e) to obtain the right to continued medical treatment, family assistance benefit, invalidity benefit, superannuation benefit, survivors' benefit, unemployment benefit, the right to residency and ownership of housing after retirement in addition to health care and pecuniary benefit for sickness, maternity, death, employment injury of the workers.
Chapter V Social Security System and Benefits Section 11	(a) The following establishments shall be applied with the provisions for compulsory registration for social security system and benefits contained in this Law if they employ minimum number of workers and above determined by the Ministry of Labour in co-ordination with the Social Security Board: (i) production industries doing business whether or not they utilize mechanical power or a certain kind of power, works of production, repairing or services, or engineering works, mills, warehouses, establishments; (ix) works carried out with foreign investment or citizen investment or joint ventured businesses; (b) Any establishment which is applied with the provisions of compulsory registration under sub-section (a) shall continue to be applied by this Law even though any of the following situations occurs if it continues to carry out such work:

	<p>(i) carrying out work by employing under stipulated minimum number of workers but more than one worker;</p> <p>(ii) changing the employer or changing the type of business.</p>
<p>Social Security System Section 13</p>	<p>The Social Security Board shall manage and keep the following social security systems in accord with the stipulations that insured persons may enjoy social security benefits:</p> <p>(b) Family Assistance Insurance System:</p> <p>i) education allowance benefit for the children of insured persons who earn below the specified amount of income;</p> <p>ii) health care and aid benefit in time of natural disaster;</p> <p>iii) suitable benefit for dependent family members.</p>
<p>Section 15</p>	<p>(a) The following funds are included in the Social Security Fund:</p> <p>(i) health and social care fund;</p> <p>(ii) family assistance fund;</p> <p>(iii) invalidity benefit, superannuation pension benefit, and survivors' benefit fund;</p> <p>(iv) unemployment benefit fund;</p> <p>(v) other social security fund for social security system of compulsory registration and contribution specified by the Ministry of Labour, in co-ordination with the Social Security Board, according to clause (2) of subsection (e) of section 13;</p> <p>(vi) other social security fund specified as to which contribution may be paid after voluntary according to clause (2) of sub-section (e) of section 13;</p> <p>(vii) fund for Social Security Housing Plan;</p>
<p>Section 18</p>	<p>(b) The employer shall deduct contributions to be paid by worker from his remuneration and pay to the social security fund together with contribution to be paid by him. The employer shall also bear the expenses for such contribution.</p>
<p>Chapter VI Application to Employment Injury Benefit Insurance System, Employment Injury Benefit Fund and Benefits Section 45</p>	<p>The provisions contained in this Law relating to the employment injury benefit insurance system shall apply to the following workers:</p> <p>(a) workers at establishments which are applied to social security system who have registered compulsorily in accord with sub-section (a) of section 16 and contributed to the social security funds contained in clauses (1), (3), (4) and (5) of sub-section (a) of section 15;</p> <p>(b) workers specified as being applied to provisions of compulsory registration for employment injury benefit insurance system by notification of the Ministry of Labour, in co-ordination with the Social Security Board with the approval of the Union Government.</p>
<p>Section 48</p>	<p>(a) The employer shall effect insurance by registering for employment injury benefit insurance system contained in section 45 at the relevant township social security office and pay contribution to employment injury benefit fund in accord with stipulations in order that workers applied to provisions of compulsory registration may obtain the employment injury benefits;</p> <p>(b) The employers may effect insurance by registering voluntarily for insurance of the workers who are not applied to provisions of compulsory registration for employment injury benefit insurance system, by paying stipulated contribution to employment injury benefit insurance fund;</p> <p>(c) When registering to effect insurance for employment injury benefit in accord with sub-sections (a) and (b), the worker shall submit medical certificate.</p>
<p>Section 49</p>	<p>Non-application to the Workmen's Compensation Act</p>

	<p>(a) The employers and insured persons of establishments where the employer had registered compulsorily in accordance with sub-section (a) of section 48 or where the employer had registered voluntarily in accord with sub-section (b) of section 48 who have paid contribution to employment injury benefit fund shall not apply to the provisions contained in the Workmen's Compensation Act as regards the employment injury benefit;</p> <p>(b) The insured persons who has effected insurance for employment injury benefit in accord with sub-sections (a) and (b) of section 48 shall be entitled only to the employment injury insurance benefits contained in this Law.</p>
Section 53	<p>(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;</p>
Section 75	<p>The employer of establishments applied by this Law:</p> <p>(a) shall prepare and keep the following records and lists correctly and submit to the relevant township social security office in accord with the stipulations:</p> <ul style="list-style-type: none"> i) records and lists of workers' daily attendance; ii) records of appointing new worker, employing worker by changing of work, suspension from work, dismissal from work and resignation from work; iii) records of promotion and paying remuneration; iv) records and lists of employers, managers, and administrators; and records of changes of them; <p>(b) shall inform the relevant township social security office if the following matters arise:</p> <ul style="list-style-type: none"> i) change in number of workers and address of establishment; ii) change of employer, change of business, suspension from work, and termination of work; iii) employment injury, employment death, and occupational diseases; <p>(c) shall produce work records and lists on requirement of inspection team or official assigned duty under this Law by the Social Security Head Office and various Regional Social Security Offices.</p>
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
<p>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.</p>	
Section 23	<p>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.</p>
Section 24	<p>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.</p>

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 if 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 Skills Development Law (2013)	
This law was enacted for safeguarding the right of workers or having skillful of workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. Employer shall conduct occupational training to enhance the skills of workers.	
Chapter (2) Employment and Employment Seeking Section 3	The Ministry shall manage the facilities and measures to help for selection of employment, obtaining employment for employment seeker suitable according to the age and strength; tenure in employment and skill development, and to help employers for obtaining workers suitable for the employment
Chapter (3) Making Contract of Employment Section 5	(a)(1) After the employer has employed a worker for any job, he shall within 30 days of so doing, sign a Contract of Employment with the worker. This clause however shall not apply to permanent workers of government departments and organizations. (2) If prior to employment, the worker is required to attend any per-employment training for a period or appointed on probation for a period, sub-section (1) shall not apply for that period. (c) The workplace rules in the Employment Contract shall conform to the rules made under existing laws and the rights of the workers in the Contract shall not be less than those in existing laws.
Chapter (5) Implementing Training Programs and Skills Development of Workers 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.
Chapter (8) Establishing and Utilizing Workers' Skills Development Fund Section 30	(a) The employers of Industrial and Service Enterprises shall pay contribution to the fund every month without fail amounting to not less than below 0.5% of the payroll of his workers up to the level of supervisors of the workers. (b) The employer shall not deduct the contribution paid under sub-section (a) to the fund from the wages of the workers.
The Worker's Compensation Act, 1923	

	<p>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.</p>
<p>Chapter IV Determining the Categories of Work Section 6</p>	<p>The National Committee shall determine, by notification, commercial, production and service, agricultural and livestock breeding business which shall be applied by the provisions relating to minimum wage contained in this Law, in the whole country or relevant Union, Region or State. Moreover, it may amend the said businesses in accord with the changing situation from time to time.</p>
<p>Chapter VII The Duties of the Employer Section 12</p>	<p>The employer:</p> <p>(a) shall not pay wage to the worker less than the minimum wage stipulated under this Law;</p> <p>(b) may pay more than the minimum wage stipulated under this Law;</p> <p>(c) shall not have the right to deduct any other wage except the wage for which it has the right to deduct as stipulated in the notification issued under this Law;</p> <p>(d) shall pay the minimum wage to the workers working in the commercial, production and service business in cash. Moreover, if the specific benefits, interests or opportunities are to be paid, it may be paid in cash or partly in cash and partly in property, with prevailing regional price, jointly according to the desire of the worker;</p> <p>(e) in paying minimum wage to the workers working in the agricultural and livestock business, some cash and some property at prevailing regional price may be paid jointly according to local custom or desire of the majority of workers or collective agreement. Such payment shall be for any personal use and benefit of the worker and his family and the value shall also be considerable and fair.</p>
<p>Section 13</p>	<p>The employer:</p> <p>(a) shall inform the workers the rates of minimum wage relating to the business among the rates of minimum wage stipulated under this Law and advertise it at the workplace to enable to be seen by the relevant workers;</p> <p>(b) shall prepare and maintain the lists, schedules, documents and wages of the workers correctly;</p> <p>(c) shall report the lists, schedules and documents prepared and maintained under subsection (b) to the relevant department in accord with the stipulations;</p> <p>(d) shall accept the inspection when summoned by the inspection officer. Moreover, he shall produce the said lists and documents upon asking to submit;</p> <p>(e) shall allow the entry and inspection of the inspection officer to the commercial, production and service businesses, agricultural and livestock breeding workplaces and give necessary assistances;</p> <p>(f) if the workers cannot work due to sickness, shall give them holiday for medical treatment in accord with the stipulations;</p> <p>(g) if the funeral matter of the member of the family of worker or his parent occurs, shall give holiday without deducting from the minimum wage, in accord with the stipulations.</p>
<p>Chapter IX Assigning Duty to the Inspection Officer, Inspection and Taking Action Section 18</p>	<p>The inspection officer:</p> <p>(a) has the right to enter and inspect the relevant commercial, production and service workplaces, agricultural and livestock breeding workplaces and inspect whether or not they comply with and carry out in accord with the rules, notifications, orders, directives and procedures under this Law, whether or not the lists, schedules and documents, wages relating to the workers are prepared correctly, and whether or not such lists, schedules and documents are reported to the Department in accord with the</p>

	<p>stipulations;</p> <p>(b) may summon, inspect the relevant persons under the assignment of duty by the Department, asking and copying for the relevant lists, schedules and documents.</p> <p>(c) if there are outside workers at employer, has the right to inspect information relating to such outside workers, their names and addresses and the right to ask for and copy their lists and documents and lists relating to minimum wage;</p> <p>(d) in carrying out under sub-section (a), (b) and (c) relating to inspection, if required by the employer to produce the document, shall show the civil service identify card issued by the relevant department;</p> <p>(e) report to the Department in accord with the stipulations relating to the finding under sub-sections (a), (b) and (c), and documents and papers called for.</p>
<p>Payment of Wages Law (2016)</p>	
<p>The Payment of Wage Act defines the payment obligation to the workers employed in the factories or railway administration. It stipulates the method of payment stating that the payment should be made in cash on a regular payday, and allows legal action against delayed payment or un-agreeable deduction.</p>	
<p>Chapter II Methods and Time of Payment of Wages Section 3</p>	<p>The employer:</p> <p>(a) shall pay wages to the workers employing in his business in local currency or foreign currencies stipulated by the Central Bank of Myanmar. Such payment may be paid in cash or cheque or deposit into the bank account of the worker with the agreement between the employer and the worker.</p> <p>(b) In paying such wages:</p> <p>(i) if it is necessary to pay particular benefit, profits and opportunities for workers working in commerce, production and service businesses, it may be paid in cash or some in cash and some in things set up by local price on own volition of workers in accordance with the stipulations.</p> <p>(ii) For workers employing in agriculture and livestock breeding business, it may be paid some wage in cash and something set up by local price according to custom, or on the volition of majority of worker or by collective agreement. In paying so, it shall be for personal use and the interest of his family, and shall be appropriate and equitable.</p> <p>(c) If any worker is conscripted under the Public Military Service Law, the (60) days of wages shall be paid as a special right</p>
<p>Section 4</p>	<p>The employer:</p> <p>(a) shall pay wages at the end of the work or at the time agreed to pay to the worker for hourly, daily, weekly or other part time work, or temporary or piece work;</p> <p>(b) shall not exceed one month than the period agreed with the worker under sub-section (a) to pay wages;</p> <p>(c) shall pay the wages for the permanent work monthly. In making such payment:</p> <p>(i) if workers are not more than 100, wages shall be paid at the end of the period for payment of wage;</p> <p>(ii) If workers are more than 100, it shall be paid no later than five days after the end of the period for payment of wage;</p> <p>(d) shall pay the due wages within two working days from the date of termination, if a worker is terminated;</p> <p>(e) shall pay the wages at the end of the period for payment of wages, if a worker resigns on his own volition by sending prior written notice of resignation;</p>

	<p>(f) shall pay the due wages to a legal heir within two working days after the decease, if a worker is deceased;</p> <p>(g) shall pay all wages on a working day</p>
Section 5	<p>If an employer encounters difficulties to make payment under subsection(c) of the Section 4 due to any unexpected condition, including natural disaster, the employer shall submit that which date has been altered for the payment of wages with the consent of the workers to the Department on reasonable ground.</p>
Chapter III Deduction from Wages Section 13	<p>The employer:</p> <p>(a) may deduct from wages, except leaves which are entitled wages under the relevant law and public holidays, for the absent period from work;</p> <p>(b) may deduct expenses which are allowance accommodation and ferry service are arranged by the employer, meal allowance, electricity charges, water service charges and income taxes liable to be paid by worker and cash paid in excess under a mistake, which are not included in the expression of wages under this Law;</p> <p>(c) may deduct advance payment or reimburse or savings for the worker or any contribution under any law demanded by a worker from wages;</p> <p>(d) may deduct from the wages of the worker under a decision of a Court or Arbitration Council or Arbitration Body.</p>
Chapter IV Overtime Wages Section 14	<p>The worker has the right to enjoy overtime wages stipulated by the law if he works over time.</p>
The Minimum Wage Law (2013)	
<p>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.</p>	
Chapter VII The Duties of the Employee Section 12	<p>The employer:</p> <p>(a) shall not pay wage to the worker less than the minimum wage stipulated under this Law</p> <p>(b) may pay more than the minimum wage stipulated under this Law;</p> <p>(c) shall not have the right to deduct any other wage except the wage for which it has the right to deduct as stipulated in the notification issued under this Law;</p> <p>(d) shall pay the minimum wage to the workers working in the commercial, production and service business in cash. Moreover, if the specific, benefits, interests or opportunities are to be paid, it may be paid in cash and partly in property, with prevailing regional price, jointly according to the desire of the worker;</p> <p>(e) in paying minimum wage to the workers working in the agricultural and live stock business, some cash and some property at prevailing regional price may be paid jointly according to local customer desire of the majority of workers or collective agreement. Such payment shall be for any personal use and benefit to the worker and his family and the value shall also be considerable and fair.</p>
Section 13	<p>The employer:</p> <p>(a) shall inform the workers the rates of minimum wage relating to the business among the rates of minimum wage stipulated under this Law and advertise it at the workplace to enable to be seen by the relevant workers;</p> <p>(b) shall prepare and maintain the lists, schedules, documents and wages of the workers correctly;</p>

	<p>(c) shall report the lists, schedules and documents prepared and maintained under subsection (b) to the relevant department in accord with the stipulations;</p> <p>(d) shall accept the inspection when summoned by the inspection officer. Moreover, he shall produce the said lists and documents upon asking to submit;</p> <p>(e) shall allow the entry and inspection of the inspection officer to the commercial, production and service businesses, agricultural and livestock breeding workplaces and give necessary assistances;</p> <p>(f) if the workers cannot work due to sickness, shall give them holiday for medical treatment in accord with the stipulations;</p> <p>(g) if the funeral matter of the member of the family of worker or his parent occurs, shall give holiday without deducting from the minimum wage, in accord with the stipulations.</p>
<p>Chapter VIII The Rights of the Workers Relating to the Minimum Wage Section 14</p>	<p>A worker working in any establishment relating to this Law:</p> <p>(a) has the right to obtain the minimum wage stipulated under this Law or, if the employer pay more than the said wage;</p> <p>(b) has the right to continue to enjoy the pay paid more, if the pay received is more than the minimum wage stipulated under this Law, before the coming into force of this Law;</p> <p>(c) has the right to enjoy the minimum wage stipulated under this Law, if the minimum wage contained in the employment agreement is less than the minimum wage stipulated under this Law;</p> <p>(d) has the right to enjoy not less than the minimum wage stipulated for each work where he is working when working in two or more works;</p> <p>(e) has the right to enjoy the stipulated minimum wage for the time worked in the part-time job, hourly job;</p> <p>(f) has the right to enjoy a holiday per week with pay in the salary-paid work. If he is employed in such holiday, he shall have the right to obtain over-time fee in accord with the existing law;</p> <p>(g) if working less than the working hours per day stipulated in a daily-waged job is not due to reduced working according to the desire of the worker, or if work has to be paused due to the failure of employer to give job, the full wage shall be paid as if the work is done full-time;</p> <p>(h) has the right to enjoy the stipulated minimum wage without discriminating between man and woman;</p> <p>(i) has the right to enjoy the minimum wage in cash, if he is a worker working in the commercial, production and service business. Moreover, if the specific benefits, interests or opportunities are to be paid, it may be paid in cash or partly in cash and partly in property at prevailing regional price jointly according to the desire of the worker;</p> <p>(j) if he is a worker working in the agricultural and livestock breeding business, the minimum wage may be enjoyed in some cash and some property at prevailing regional price jointly according to local custom or desire of the majority of workers or collective agreement for the worker and his family in accord with the stipulations.</p>
<p>Chapter X Prohibitions and Penalties Section 22</p>	<p>Any employer:</p> <p>(a) shall not fail to pay the workers the minimum wage stipulated under this Law;</p> <p>(b) shall not pay to the workers less than the minimum wages and other benefits which is entitled by the worker under section 14;</p> <p>(c) relating to the accounts, schedules, documents and lists of wage of the workers:</p>

	<p>(i) shall not make false entry, deceitful recording or false and deceitful reporting;</p> <p>(ii) shall not fail to report to the relevant department in accord with the stipulations;</p> <p>(iii) shall not fail to produce when required by the inspection officer;</p> <p>(d) shall not fail to go and accept inspection when summoned by the inspection officer;</p> <p>(e) shall not obstruct or interfere with the inspection officer who comes and inspects on duty.</p>
Section 24	<p>Any employer:</p> <p>(a) shall not violate any term and condition contained in the minimum wage notification;</p> <p>(b) shall not fail to inform the workers relating to the rates of minimum wage concerning to his workers among the rates of minimum wage stipulated under this Law and announce at the place where the workers are able to see it in the work centre and workplace;</p>
The Leave and Holidays Rules (1951, partially revised in 2018)	
<p>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.</p>	
Chapter (3) Leave Section 23	<p>A worker has the right to take leave with respective wages or with respective salary according to the type of leave and designated period set-up by the law. However, workers are entitled to take earned leave with respective average wages or average salary.</p>
Section 24	<p>Workers have the right to take casual leave, medical leave or maternity leave within the probation period.</p>
Section 25	<p>For days in which a worker is not in the workplace after the end of a period of leave, such days shall not be counted as leave.</p>
Section 26	<p>If there are holidays just before or right after one's leave commences, these days cannot be counted as part of the leave period.</p>
Section 27	<p>Subjecting a worker to relocation, suspension of duty, reduction of salary or termination within their leave period is not allowed.</p>
Chapter (4) Duties and Responsibilities of Worker Section 49	<p>The worker</p> <p>(a) must ask for leave from the employer or the manager or from an authorized person with Form</p> <p>(1) within the normal working hours.</p> <p>(b) must report to the employer or to the manager or to an authorized person when the worker is back in the workplace after taking leave.</p> <p>(c) must inform employer or manager or authorized person, by phone or any other method, if the worker is unable to return to the workplace from their current location by the end of leave due to natural disaster or unforeseen happenings or accident occurring within the leave period.</p>
Chapter (5) Duties and Responsibilities of an Employer Section 50	<p>The employer</p> <p>(a) must provide the worker casual leave, medical leave and maternity leave with respective wages or salary. Moreover, must allow the worker earned leave with respective average wages or average salary. If the employer normally pays the cost of living, then the cost of living must also be included.</p> <p>(b) must provide the worker with earned leave starting from the day of entitlement within 12 months, with respective average wages or with</p>

	<p>average salary, and also must advance the entitled wage prior to the worker taking leave.</p> <p>(c) must announce the number of entitled earned leave calculations within three months starting from the last day of the 12-month period or entitled earned leave. In this way, workers can take leave by turns (alternatively). Moreover, to fix the eligibility period within which workers can take earned leave.</p> <p>(d) if the worker resigns or is terminated or in case of death, has to pay the respective wages/salary within two business/working days starting from the date of incidence.</p> <p>(e) has to pay the eligible wage/salary for earned leave to his/her official representative (if the worker is deceased).</p> <p>(f) has to pay for the respective earned leave period if there is a temporary or permanent shutdown. has to allow eligible earned leave if the nature of work is less than twelve months.</p> <p>(g) is not allowed to suspend, to reduce the salary, to relocate or to terminate a worker due to the worker taking maternity leave or medical leave.</p> <p>(h) has to fill up Form (1), (2), (3), (4), (5) and (6) according to the law. These forms shall be easily accessible from the Inspector. The employer must maintain these documents for up to twelve months' period.</p> <p>(i) has to record the leave taken in Form (7) and submit to the Inspector not later than every seventh day of each month.</p> <p>(j) wants the worker to work on a gazette holiday, the employer must receive consent from the worker. The employer must submit Form (8) to the Inspector for approval.</p>
<p>Public Health Law (1972)</p>	
<p>Chapter 2 Prevention of Public Health Objectives</p>	<p>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:</p> <p>The project owner has to cooperate with the authorized person or organization in line with the section 3 and 5 of said law.</p> <p>The project proponent has to abide by any instruction or stipulation for public health under the section 3 of said law.</p> <p>The project proponent has to allow any inspection, anytime, anywhere if it is needed under the section 5 of said law.</p>
<p>Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)</p>	
<p>Chapter 2 Prevention and Response Section 3</p>	<p>(a) In order to prevent the outbreak of communicable diseases, the Department of Health shall implement the following activities systematically under the guidance of the Ministry of Health:</p> <p>(i) immunization of children by injection or orally;</p> <p>(ii) immunization of those who have attained eligible target group including adult by injection or orally, when necessary;</p> <p>(iii) carrying out health education activities relating to communicable disease;</p> <p>(iv) carrying out the activities of surveillance, prevention and control concerning communicable disease;</p> <p>(v) carrying out the activities of medical examination for prevention of communicable disease in cross-border entrance and exit of the country, international airport, seaport, other necessary airport, seaport and bus terminal;</p>

	<p>(vi) prohibition or restriction of movements at home, hotel, motel and guest house;</p> <p>(vii) isolation of infected person of communicable disease or suspect of being infected there with;</p> <p>(viii) carrying out the activities of spraying, immunization by injection or orally and environmental sanitation necessary for prevention and control according to communicable diseases;</p> <p>(ix) giving advice to and coordinating with relevant Government departments, organizations and non-governmental organizations for construction of healthy housing, obtaining safe drinking water and fresh water for use, proper waste disposal in order to prevent occurrence of communicable disease for workers who are carrying out activities of social and economic development;</p> <p>(x) carrying out other functions prescribed by the Ministry of Health, from time to time.</p>
Section 4	The public shall comply with the measures undertaken by the Ministry of Health and the Department of Health under section 3 in respect of prevention of the occurrence and spread of communicable disease and control thereof."
Section 9	Sub-sections (d) and (e) contained in section 11 of the Prevention and Control of Communicable Diseases Law shall be substituted as follows: "(d) other necessary investigation; (e) prohibition of the right of movement of the vehicle carrying animal or animal product suspected of having epidemic disease."
Section 11	After sub-section (e) of section 14 of the Prevention and Control of Communicable Diseases Law, sub-section (f) shall be inserted as follows: "(f) right of movement of the vehicle carrying animal or animal product suspected of having epidemic disease."
Occupational Safety and Health Law (2019)	
Purpose:	To effectively implement measures related to safety and health in every industry and to set occupational safety and health standards;
Section-26 Sub-section (e)	The project proponent has to provide adequate and relevant personal protective equipment to workers free of charge and make them wear it during work so as not to expose workers to any serious occupational diseases or hazards.
Section-26 Sub-section (1)	The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards.
Section-30 Sub-section (a)	The worker shall wear or use at all times any protective clothes, equipment and tools provided by the employer for the purpose of safety and health.
Section-30 Sub-section (d)	The worker shall proper and systematic use any equipment and tools, machines, any parts of the machines, vehicles, electricity and other substances being used at the workplace.
Section-30 Sub-section (e)	The worker shall take reasonable care for the safety and health of himself/ herself and of other persons who may be affected by his/ her acts or omissions at work.
Natural Disaster Management Law (2013)	
Chapter II Objectives Section 3	The objectives of this Law are as follows: (a) to implement natural disaster management programmes systematically and expeditiously in order to reduce disaster risks;

	<p>(b) to form the National Committee and Local Bodies in order to implement natural disaster management programmes systematically and expeditiously;</p> <p>(c) to coordinate with national and international government departments and organizations, social organizations, other non-government organizations or international organizations and regional organizations in carrying out natural disaster management activities;</p> <p>(d) to conserve and restore the environment affected by natural disasters;</p> <p>(e) to provide health, education, social and livelihood programmes in order to bring about better living conditions for victims.</p>
<p>Chapter VI Natural Disaster Management Section 13</p>	<p>The department, organization or person that has been assigned responsibility under this Law:</p> <p>(a) shall undertake the following functions after laying down the plan in accord with the natural disaster management plans in order to reduce damage and losses that are likely to be caused by natural disaster;</p> <p>(i) preparatory and preventive measures for natural disaster risk reduction in pre-disaster period;</p> <p>(ii) emergency responses including search and rescue during natural disaster;</p> <p>(iii) rehabilitation and reconstruction activities for improving better living standard in post disaster period and conservation of the environment that has been affected by natural disaster;</p> <p>(b) shall give priority and protect infants, the elderly, the disabled and women (especially pregnant women or mothers and suckling mother) in carrying out the functions contained in sub-section (a);</p> <p>(c) shall refrain from the act that causes injuring human dignity in supporting the victims.</p>
<p>Chapter VIII Offence and Penalties Section 25</p>	<p>Whoever, if the natural disaster causes or is likely to be caused by any negligent act without examination or by willful action which is known that a disaster is likely to strike, shall be punished with imprisonment for a term not exceeding three years and may also be liable to fine.</p>
<p>Section 26</p>	<p>Whoever interferes, prevents, prohibits, assaults or coerces any natural disaster management to the department, organization or person assigned by this Law shall, on conviction, be punished with imprisonment for a term not exceeding two years or with fine or with both.</p>
<p>Section 27</p>	<p>Whoever misinforms about the natural disaster for the purpose of dread to the public shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both.</p>
<p>Section 28</p>	<p>Any department, organization or person assigned by this Law commits any of the following acts or omissions shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both:</p> <p>(a) falsification of data on damage and losses caused by natural disasters dishonestly;</p> <p>(b) willful failure to perform assigned responsibility.</p>
<p>Section 29</p>	<p>Whoever violates any prohibition contained in rules, notifications and orders issued under this Law shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both.</p>
<p>Section 30</p>	<p>Whoever commits any of the following acts or omissions shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both:</p> <p>(a) willful failure to comply with any of the directives of the department, organization or person assigned by this Law to perform any of the natural disaster management;</p>

	<p>(b) entering into the area or building affected by natural disaster without permission;</p> <p>(c) utilizing, trading, preventing or destroying food, relief items and rehabilitation materials provided for victims dishonestly;</p> <p>(d) making a false application for food, relief items and rehabilitation materials or cash assistance to the department, organization or person assigned by this Law as it is affected by natural disaster.</p>
Section 31	Whoever fails willfully to comply with the direction of remove or evacuation from an area or building at risk natural disaster to the public in such place for the purpose of reduction of damage and losses when the natural disaster strikes or it will be a natural disaster and for the purpose of no obstruction to the prevention and reduction activities of the natural disaster shall, on conviction, be punished with imprisonment for a term not exceeding one month or with fine or with both.
Myanmar Engineering Council Law, 2013	
Chapter 2 Objectives Section 3	<p>The Objectives of this law are as follows:</p> <p>(a) to develop the dignity, ethical principles and ability of Myanmar citizen engineers, graduate technologists and technicians who are working in the engineering services</p> <p>(b) to explore beneficial, useful and good methods to research and develop the State's natural resources and human resources with the least environmental impact by a combination of engineering technology and information technology;</p> <p>(c) to guide, control, maintain and take necessary action with regard to specified standards and norms relating to specified subjects, systematic methods, safety and ethical principles and duties in teaching engineering subjects and in technological research and services;</p> <p>(d) to perform engineering and technological activities of the State and tasks assigned by the relevant ministry or organization from time to time;</p>
Chapter 13 Prohibitions and Penalties Section 37	No one shall perform any engineering work and technological work which are specified as being dangerous to the public by a rule enacted under this law without having received a registration certificate issued by the council, except for engineers appointed in a government department or an organization in the performance of their duties.
Section 37	No engineer, graduate technologist and technician shall use, together with his name, a title which is not compatible with his status.
Section 38	<p>No registered engineer, graduate technologist and technician-</p> <p>(a) shall transfer his registration certificate to anyone or allow it to be used by anyone;</p> <p>(b) shall fail to return his registration certificate to the council within 30 days from the day on which a decision is passed, or an administrative action is taken, under this law to cancel the registration certificate.</p>
Section 39	Anyone convicted of having violated the prohibition contained in section 37 shall be punished with imprisonment for not more than 2 years or with a fine or with both.
Section 40	any registered engineer, graduate technologist or technician convicted of having violated the prohibition contained in section 38 shall be punished with imprisonment of not more than 1 year or with a fine or with both.
Section 41	Any registered engineer, graduate technologist or technician convicted of having violated the prohibition contained in 39 shall be punished with imprisonment of not more than 1 year or with a fine or with both.

Section 42	Any registered engineer, graduate technologist or technician convicted of having violated any prohibition under this law shall be punished with imprisonment of not more than 6 months or with a fine or with both.
Myanmar Fire Brigade Law, 2015	
Chapter II Objectives Section 3	The objectives of this Law are as follows: (a) to prevent destruction of State-owned property, private property, cultural heritage and the lives and property of the public by fire and other natural disaster; (b) to organize the Fire brigade systematically and to train members of the fire brigade; (c) to carry out extinguishing fire, prevention and search and rescue when fire, other natural disaster, epidemic disease or any kind of sudden disaster occurs; (d) to educate, organize and incite extensively so as to achieve public cooperation when any disaster occurs; (e) to participate and help, if necessary, for the State safety, peace of the public and the rule of law
Chapter VIII Activities for Fire Safety Section 15	The different levels of Fire Safety Body shall: (a) perform the activities for fire safety in accord with the procedures laid down by the Central Body; (b) organize and educate to obtain the cooperation of the public in the activities for fire safety; (c) supervise as may be necessary the participation of all the relevant members of fire brigade in accord with the work programmes laid down by the Central Body when fire hazard, other natural disaster, epidemic disease or sudden disaster occurs; (d) appoint fire safety warning groups in coordination with the relevant administrative organizations.
Section 16	The person-in-charge of the Township Fire Services Department shall: (a) issue, from time to time, the directives on fire safety to be abided by the residents in the city, ward or village - tract; (b) inspect or cause to inspect in accord with the stipulations whether the residents in the city, ward or village - tract abide by the directives issued under sub-section (a) and arrange to enable warning or taking action, as may be necessary, against those who do not abide by.
Chapter XI Prohibitions Section 24	No person shall fail to abide by the directives of fire safety issued under section 16 by the head of the relevant Township Department of Fire Services.
Section 25	The owner or manager of the factory, workshop, bus terminal, airport, port, hotel, motel, lodgings, condominium, market, department, organization or business exposed to fire hazard shall, in accord with the directive of the Department of Fire Services: (a) not fail to form the Reserve Fire Brigade; (b) not fail to provide fire safety equipment.
Section 26	No person shall, knowing that there is no outbreak of fire, report fraudulently the outbreak of fire to the Fire brigade.
Section 25	No person shall, without cause, obstruct, block, disturb, or attack the members of the fire brigade and vehicles which departed to extinguish the fire and direct by any means to the place which is not related to the outbreak of fire.
Protection and Preservation of Cultural Heritage, 1998	

<p>Chapter II Objectives Section 3</p>	<p>The objectives of this Law are as follows: (a) to implement the protection and preservation policy with respect to perpetuation of cultural heritage that has existed for many years; (b) to protect and preserve the cultural heritage regions and the cultural heritage therein so as not to deteriorate due to natural disaster or man-made destruction; (c) to uplift hereditary pride and to cause dynamism of patriotic spirit of citizens by protecting and preserving the cultural heritage regions. (d) to promote public awareness and will as to the high value of the protection and preservation of the cultural heritage regions; (e) to protect the cultural heritage regions from destruction; (f) to carry out protection and preservation of the cultural heritage regions in conformity with the International Convention approved by the State.</p>
<p>Chapter VI Applying for Prior Permission, Scrutinizing and Issuing Section 13</p>	<p>A person desirous of carrying out one of the following shall abide by the provisions of other existing laws and also apply to the Department in accordance with stipulations to obtain prior permission under this Law :</p> <p>(a) within the ancient monumental zone or the ancient site zone: (1) constructing or extending a building; (2) renovating the ancient monument or extending the boundary of its enclosure;</p> <p>(b) within the protected and preserved zone, constructing, extending, renovating a hotel, motel, guesthouse, lodging house or industrial building or extending the boundary of its enclosure;</p> <p>(c) within the cultural heritage region (1) carrying out the renovation and maintenance work of the ancient monument without altering the original ancient form and structure or original ancient workmanship; (2) carrying out archaeological excavations; (3) building road, constructing bridge, irrigation canal and embankment or extending the same.</p>
<p>Chapter VII Prohibitions Section 22</p>	<p>No person shall construct a building which is not in conformity with the conditions prescribed region wise by the Ministry of Culture in the cultural heritage region.</p>
<p>The Protection and Preservation of Ancient Monument Law (2015)</p>	
<p>Purpose</p>	<p>To ensure the protection of the ancient monument and information about it if it was in the project area. This law focuses as follows;</p>
<p>Section 12</p>	<p>-The project proponent has to report to the village-tract or ward administrators if the project proponent will find any ancient monument under the ground or on the ground or under the water.</p>
<p>Section 15</p>	<p>The project proponent has to obtain the prior permission of the Department of Ancient Research Museum if the project area is in the prescribed area of the Ancient monument.</p>
<p>Sub-section (f) of section 20</p>	<p>The project proponent has to obtain the prior permission, by written, of Department of Ancient Research and National Museum if the project proponent disposes of the chemical and solid waste in the Ancient Monument.</p>
<p>The Conservation of Water Resources and Rivers Law, 2016</p>	
<p>Chapter II Aims Section 3</p>	<p>The aims of this Law are as follows: (a) to conserve and protect the water resources and rivers system for beneficial utilization by the public;</p>

	<p>(b) to smooth and safety waterways navigation along rivers and creeks; (c) to contribute to the development of State economy through improving water resources and river system; (d) to protect environmental impact.</p>
Chapter V Prohibitions Section 8	<p>No person shall: (a) carry out any act or channel shifting with the aim to ruin the water resources and rivers and creeks. (b) cause the wastage of water resources wilfully.</p>
Section 11	<p>No person shall: (a) 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. (b) catch aquatic creatures within river-creek boundary, bank boundary or waterfront boundary with poisonous materials or explosives. (c) dispose of disposal soil and other materials from panning for gold, gold mineral dredging or resource production in the river and creek, into the river and creek or into the water outlet gully which can flow into the river and creek.</p>
Section 11	<p>11. No person shall: (a) 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. (b) catch aquatic creatures within river-creek boundary, bank boundary or waterfront boundary with poisonous materials or explosives. (c) dispose of disposal soil and other materials from panning for gold, gold mineral dredging or resource production in the river and creek, into the river and creek or into the water outlet gully which can flow into the river and creek.</p>
Section 19	<p>No one shall dispose of any substance into the river-creek that may cause damage to waterway or change of watercourse from the bank or vessel which is plying, vessel which has berthed, anchored, stranded or sunk.</p>
Section 22	<p>No one shall, without the permission of the directorate, pile sand, shingle and other heavy materials for business purposes in the bank area and waterfront area.</p>
Chapter VI Penalties Section 29	<p>Whoever attempts or conspires or abets in the commission of an offence under this Law shall be punished with the punishment provided for such offence in this Law.</p>
Chapter VII Miscellaneous Section 30	<p>Any government department and organization or any person desirous of constructing drainage, utilizing river water intake, constructing bridges spanning rivers, connecting underground pipe, connecting underground electric power cable, connecting underground telecom cable or digging in rivers and creeks, bank boundary and waterfront boundary, under the requirement of work, shall in order not to adversely affect the water resources and rivers and creeks, carry out only after obtaining the approval of the Ministry of Transport.</p>
Underground Water Act (21st June, 1930)	
<p>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</p>	

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.	
Section 3	No person shall sink a tube for the purpose of obtaining underground water except under and in accordance with the terms of a licence granted by the water officer. Every person owning a tube which was in existence before the extension of this Act to the local area concerned shall apply to the water officer for a licence for the said tube, and such licence shall be granted free of charge.
Section 5	Every person obtaining or attempting to obtain underground water shall supply the water officer with such information as the President of the Union may by rule prescribe.
Section 6	The President of the Union may make rules 1- (a) prescribing the conditions subject to which licences may be granted by the water officer under section 3; (b) prescribing the form of and the procedure for granting such licences and the fees payable for the issue thereof; (c) prescribing the information to be supplied to the water officer under section 5.
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.	
The Motor Vehicles Law, 2015	
Chapter 2 Objectives Section 3	The main objectives of this law are as follows: (a) For the safe driving of motor vehicles in public areas through registration according to official rules and regulations. (b) To provide driving licenses for driving particular types of motorized vehicles after qualification checks. (c) For the easy flow of road users and for the protection against road risks and vehicle perils. (d) To avoid traffic congestion and to use high technology transportation systems efficiently in order to implement protection against road risks and vehicle perils. (e) To reduce environmental pollution caused by motor vehicles.
Chapter (3) Motor vehicle registration Section 4	Every owner of a motor vehicle must register the vehicle with the registration officer.
Section 5	The owner of a motor vehicle must maintain the vehicle in a safe condition equal to the standard condition.
Section 6	The registration officer may not register the motor vehicle if the vehicle is disqualified for failing to comply with safety standards or the engine is broken or if the applicant has failed to disclose previous facts about former registrations of the vehicle.
Section 8	(a) The owner of the vehicle can request the registration officer to issue a temporary registration according to the regulations. (b) The temporary registration according to this section cannot be valid for more than

	three months. And this law does not allow temporary registration more than one time.
Section 10	The owner of a vehicle must notify the registration officer if the main parts of his/her vehicle needs to be changed or repaired.
Chapter (9) Prohibitions Section 45	No one is allowed to drive, request someone to drive, or park, motor vehicles in public places under the following conditions: (a) The motor vehicle is not registered. (b) The registration has been suspended, revoked or expired; the registration card is not displayed. (c) The registration card has been revoked or is expired.
Section 46	No one is allowed to drive, or allow to drive, motor vehicles in public places without risk insurance for others. This prohibition does not extend to passengers.
Section 47	(a) No one is allowed to drive a motor vehicle in public places without carrying the driving license with him/her. (b) No one is allowed to drive a motor vehicle in public places without a driving license. (c) The owner of, and the person responsible for, a motor vehicle are not allowed to give permission to someone without a driving license to drive in public places.
Section 50	No one is allowed to do the following in public places: (a) Driving above the speed limit or below the minimum speed. (b) Driving a motor vehicle which endangers others. (c) Driving a motor vehicle after the consumption of narcotic drugs or alcohol.
Section 50	No one is allowed: (a) To operate a business of manufacturing, selling or equipping motor vehicles without a business license. (b) To operate a business of maintaining or repairing motor vehicles without a business license.
The Forest Law, 3rd November, 1992	
Chapter II Basic Principles Section 3	This Law shall be implemented in accordance with the following basic principles: - (a) to implement the forestry policy of the Government; (b) to implement the environmental conservation policy of the Government; (c) to promote the sector of public co-operation in implementing the forestry policy and the environmental conservation policy of the Government; (d) to develop the economy of the State, to contribute towards the food, clothing and shelter needs of the public and for perpetual enjoyment of benefits by conservation and protection of forest; (e) to carry out in accordance with international agreements relating to conservation of forests and conservation of environment; (f) to prevent the dangers of destruction of forest and bio-diversity, outbreak of fires, infestation of insects and occurrence of plant disease; (g) to carry out simultaneously conservation of natural forests and establishment of forest plantations; (h) to contribute towards the fuel requirement of the country.
Chapter III Constitution of Reserved Forest and Declaration of Protected Public Forest Section 8	(a) A standing teak tree wherever situated in the State is owned by the State; (b) The Minister may declare, alter or cancel according to the locality the species of reserved trees which are to be conserved by the Forest Department.

<p>Chapter V Establishment of Forest Plantation Section 16</p>	<p>A person having obtained the right to extract forest produce on a commercial scale who has the responsibility of establishing forest plantations or carrying out natural regeneration under a permit for the State shall carry out the same at his own expense and in accordance with stipulation.</p>
<p>Chapter VI Permission for Extraction of Forest Produce Section 16</p>	<p>A person who has obtained permission for extraction of forest produce shall: - (a) abide by the conditions contained in the permit; (b) abide by the orders, directives, prohibitions and restrictions issued by the Forest Department in accordance with this Law; (c) pay the royalties, security deposits and advances due; (d) affix the mark after measuring in the manner prescribed or affix the property- mark which has been registered.</p>
<p>Chapter VII Removal of Forest Produce Section 23</p>	<p>a) Whoever is desirous of moving any forest produce from one township to another within the country shall apply for a removal pass from the Forest Officer empowered by the Director- General for this purpose. (b) The provision of sub-section (a) shall not apply to the following cases: - - (i) moving forest produce within the area permitted for extraction thereof; (ii) moving minor forest produce not exceeding the prescribed quantity and not on a commercial scale; (iii) moving from one township to another in a City Development area.</p>
<p>Chapter IX Establishment of Wood-based Industry Section 30</p>	<p>A private entrepreneur who is desirous of establishing a sawpit, sawmill, tongue-and-groove mill, plywood mill, veneer mill or a wood-based industry with the exception of wood-based cottage industries and furniture industries has the right to establish the same only after obtaining a permit from the Forest Officer empowered for this purpose.</p>
<p>Chapter X Search, Arrest and Administrative Action Section 34</p>	<p>If a person who has obtained permission to extract forest produce or his agent or his labourer violates any condition of the permit, the person granting permission to extract forest produce may pass any of the following orders: - (a) causing the suspension of the whole or any portion of the work carried out under the permit; (b) causing payment of the prescribed penalty to be made and permitting the work to be carried on; (c) cancelling the permit; (d) cancelling the permit and confiscating the security deposit and advances; if it is considered necessary causing payment of the prescribed penalty.</p>
<p>Chapter XII Offences and Penalties Section 40</p>	<p>Whoever commits any of the following acts shall, on conviction, be punished with fine which may extend to kyats 5,000 or with imprisonment for a term which may extend to 6 months or with both: (a) trespassing and encroaching in a reserved forest; (b) pasturing domestic animals or permitting domestic animals to trespass in a reserved forest; (c) breaking up any land, clearing, digging or causing damage to the original condition of the land without a permit in a reserved forest; (d) causing damage to a water-course, poisoning the water, using chemicals or explosives in the water in a reserved forest; (e) catching animals, hunting or fishing in a reserved forest; (f) kindling, keeping and carrying any fire or leaving any fire burning which may set fire to the forests in a reserved forest;</p>

	<p>(g) moving forest produce without submitting to examination at the revenue station;</p> <p>(h) violating any provision of the rule, procedure, order, directive or notification issued under this Law</p>
National Land Use Policy, 2014 October	
<p>Chapter I Basic Principles of the National Land Use Policy Section 8</p>	<p>In terms of the National Land Use Policy:</p> <p>(a) It shall use the land resources of the State sustainably and systematically by conserving and protecting them for the interest of all peoples of the State;</p> <p>(b) It shall enact the National Land Law which harmonize the existing laws relating to use of land resources and land tenures in the whole country including rural and urban areas and which may be implemented systematically;</p> <p>(c) It shall cause to decide the matters relating to land disputes arisen between the land users and the stakeholders transparently and truly in accord with the National Land Law;</p>
<p>Section 8</p>	<p>In implementing the continued entry of the foreign direct investments, sustainable economic development, effectiveness of the environmental conservation and protection, social harmonization, firmness of land tenures, immovable property right and settlement of land dispute:</p> <p>(a) It shall increase responsible undertaking and respect the rule of law;</p> <p>(b) It shall strengthen the clean governance system by carrying out land use management, land tenure management in accord with law systematically and truly;</p> <p>(c) It shall establish modernized systems to enable to have access to correct information relating to land use management and land tenure management;</p> <p>(d) It shall establish the land dispute settlement mechanism which is easily implementable and impartial;</p> <p>(e) It shall arrange and carry out coordination process with the stakeholders transparently.</p>
<p>Chapter II The Situation of the Existing Land Management Mechanism Section 12</p>	<p>The State has arranged and carried out to expand agricultural land use by the State-owned organizations, cooperative societies, associations, joint ventures, other organizations which acquire agricultural land for businesses and individual agriculturalists after forming the Vacant, Fallow and Virgin Lands Management Central Committee under the Notification 44/91 dated 13th November, 1991.</p>
The Protection of Wildlife and Conservation of Natural Areas Law ,1994 (Amended in 2018)	
<p>Chapter II Objectives Section 3</p>	<p>The objectives of this Law are as follows: -</p> <p>(a) to implement the Government policy for wildlife protection;</p> <p>(b) to implement the Government policy for natural areas conservation;</p> <p>(c) to carry out in accordance with the International Conventions acceded by the State in respect of the protection and conservation of wildlife, ecosystems and migratory birds;</p> <p>(d) to protect endangered species of wildlife and their natural habitats;</p> <p>(e) to contribute for the development of research on natural science;</p> <p>(f) to protect wildlife by the establishment of zoological gardens and botanical gardens.</p>
<p>Chapter V Protected Wildlife</p>	<p>The Director General shall, with the approval of the Minister:</p>

<p>Section 15</p>	<p>(a) determine and declare endangered species of wild animal which are to be protected according to the following categories: (i) completely protected species of wild animals; (ii) normally protected species of wild animals; (iii) seasonally protected species of wild animals; (b) determine and declare the endangered species of wild plants and their nature habitats thereof; (c) lay down and carry out measures for the preservation of protected wildlife species; (d) co-ordinate with the relevant department or organization if the wildlife which are to be determined for protection are under the administration of another Government department or Government organization.</p>
<p>Chapter X Appeal Section 33</p>	<p>A person dissatisfied with an administrative order passed by a Forest Officer may file an appeal to the Director General within 30 days from the date of such order.</p>
<p>Chapter XI Offences Arid Penalties Section 35</p>	<p>Whoever commits any of the following acts shall, on conviction be punished with imprisonment for a term which may extend to 3 years or with fine which may extend to kyats 10,000 or with both: - hunting without a licence; violation of any condition of the hunting licence; raising without permission, for commercial purpose normally protected wild animals and seasonally protected wild animals; causing water and air pollution, causing damage to a water-course or putting poison in the water in a natural area; possessing or disposing of pollutants or mineral pollutants in a natural area; stablishing and operating a zoological garden or a botanical garden without a licence.</p>
<p>Section 36</p>	<p>Whoever commits any of the following acts shall, on conviction be punished with imprisonment for a term which may extend to 5 years or with fine which may extend to kyats 30,000 or with both: - (a) killing, hunting or wounding a normally protected wild animal or seasonally protected wild animal without permission, possessing, selling, transporting or transferring such wild animal or any part thereof without permission; (b) extracting, collecting or destroying in any manner any kind of protected wild plants within the prescribed area without permission; (c) destroying ecosystem or any natural state in the natural area; (d) altering, removing, destroying or obliterating without permission. any boundary mark of a natural area or any boundary mark of a zoological garden or botanical garden administered by the Government or in which the Government has subscribed share capital.</p>
<p>Section 37</p>	<p>Whoever commits any of the following acts shall, on conviction be punished with imprisonment for a term which may extend to 7 years or with fine which may extend to kyats 50,000 or with both: - (a) killing, hunting or wounding a completely protected wild animal without permission, possessing, selling, transporting or transferring such wild animal or any part thereof without permission; (b) exporting without the recommendation of the Director General a completely protected wild animal or a protected wild plant or any part thereof.</p>
<p>Section 38</p>	<p>The provisions of section 36 sub-section (a) or section 37 sub-section (a) shall not apply to: -</p>

	the possessing as a souvenir or wearing as a traditional custom of any part of normally protected wild animal or a seasonally protected wild animal; the possessing or wearing with a certificate of registration issued under section 27 subsection (b) of any pad of a completely protected wild animal; the possessing, use, sale, transport or transfer of a drug prepared from a part of a protected wild animal.
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2.2. NATIONAL ENVIRONMENTAL QUALITY (EMISSION) GUIDELINES

As specified in the EIA Procedure, all projects are obliged to use, comply with and refer to applicable national guidelines or standards or international standards adopted by the Ministry. As specified in the EIA Procedure, following project approval a project shall commence implementation strictly in accordance with the project EMP and any additional requirements set out in the project ECC, which will encompass conditions relating to emissions. While these Guidelines generally apply to all projects subject to the EIA Procedure, it is the prerogative of the Ministry to decide how the Guidelines should be applied to existing projects as referred to in the EIA Procedure.

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.

2.2.1. General Guidelines

General guidelines of related environmental impact guideline for proposed project are -

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
	1-hour	200
Ozone	8-hour	100
Particulate Matter PM10 ^a	1-year	10
	24-hour	50
Particulate Matter PM2.5 ^b	1-year	10

	24-hour	25
Sulfur dioxide	24-hour	20
	10-minute	500

^a Particulate matter 10 micrometers or less in diameter

^b Particulate matter 2.5 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)

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
Cyanide (total)	mg/l	1
Fluoride	mg/l	20
Heavy metals (total)	mg/l	10
Iron	mg/l	3.5

Lead	mg/l	0.1
Mercury	mg/l	0.01
Nickel	mg/l	0.5
Oil and grease	mg/l	10
pH	S.U. ^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	mg/l	2

a Standard Unit

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

2.2.2. Garment, Textile and Leather Products Manufacturing

This guideline applies to textile manufacturing using natural fibers, synthetic fibers (made entirely from chemicals), and regenerated fibers (made from natural materials by processing these materials to form a fiber structure). It does not include polymer synthesis and natural raw material production.

2.2.2.1. Effluent levels

Parameter	Unit	Guideline Value
5-day Biochemical oxygen demand	mg/l	30
Absorbable organic halogens	mg/l	1
Ammonia	mg/l	10
Cadmium	mg/l	0.02
Chemical oxygen demand	mg/l	160
Chromium (hexavalent)	mg/l	0.1
Chromium (total)	mg/l	0.5
Cobalt		0.5
Color		7 (436 nm ^a , yellow) 5 (525 nm, red)

		3 (620 nm, blue)
Copper	mg/l	0.5
Nickel	mg/l	0.5
Oil and grease	mg/l	10
Pesticides		0.05-010 ^b
pH	S.U. ^c	6-9
Phenol	mg/l	0.5
Sulfide	mg/l	1
Temperature increase	°C	<3 ^d
Total coliform bacteria	100 ml	400
Total nitrogen	mg/l	10
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

a Nanometers

b 0-05 mg/l for total pesticides (organ phosphorus pesticides excluded); 0.10 mg/l for organo phosphorus pesticides

c Standard Unit

d 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

2.2.2.2. Air emission levels

Parameter	Unit	Guideline Value
Ammonia	mg/Nm ^{3a}	30
Carbon disulfide	mg/Nm ³	150
Chlorine	mg/Nm ³	5
Formaldehyde	mg/Nm ³	20
Hydrogen sulfide	mg/Nm ³	5
Particulates	mg/Nm ³	50 ^b
Volatile organic compounds	mg/Nm ³	2/20/50/75/100/1 150 ^{c, d}

a Milligrams per normal cubic meter at specified temperature and pressure

b as the 30-minute mean for stack emissions

c Calculate as Total carbon

d As the 30-minute mean for stack emissions; 2 mg/Nm³ for volatile organic compounds classified as carcinogenic or mutagenic with mass flow greater than or equal to 10 g/hr; 20 mg/Nm³ for discharges of halogenated volatile organic compounds with a mass flow equal or greater than 100 g/hr; 50 mg/ Nm³ for waste gases from drying of large installations (solvent consumption > 15 tons/year); 75 mg/Nm³ for coating application processes for large installations (solvent consumption > 15 tons/year); 100 mg/Nm³ for small installations (solvent consumption < 15 tons/year); if solvent is recovered from emissions and reused, the guideline value is 150 mg/Nm³

2.2.3. IFC EHS Guidelines

The EHS Guidelines¹ by International Finance Cooperation (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 to be 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 2-4 shows 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	<p>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.</p> <p>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.</p>
Structural Safety of Project Infrastructure	<p>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.</p>
Traffic Safety	<p>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.</p>
Transport of Hazardous Materials	<p>Projects should have procedures in place that ensure compliance with local laws and international requirements applicable to the transport of hazardous materials.</p>
Disease Prevention	<p>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.</p>

Contents	Brief Description
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. INSTITUTIONAL ARRANGEMENT

The Ministry of Environmental Conservation and Forestry (MOECAF) was reformed as the Ministry of Natural Resources and Environmental Conservation (MONREC) on 30th March, 2016 in order to undertake both environmental and natural resources conservation and management more effectively. Under Section 3 of the Environmental Impact Assessment Procedure (2015), pursuant to section 21 of the law and Articles 52, 53 and 55 of the Environmental Conservation Rules, all projects and project expansions undertaken by any organization, which may cause impact on environmental quality that, are required to obtain prior permission. This is to be in accordance with section 21 of the Environmental Conservation Law, and Article 62 of the Environmental Conservation Rules, having the potential to cause adverse impacts, that are required to undertake EMP or EIA or to develop an EMP, and to obtain an Environmental Compliance Certificate (ECC) in accordance with this EIA procedure.

2.4. COMMITMENT OF WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED

William (Myanmar) Industrial 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 DESCRIPTION

3.1. LOCATION OF THE PROJECT SITE

The proposed project is located at between Latitude 16°56'40.45"N Longitude 96°09'17.28"E and Plot No. A-8, Mingaladon Industrial Zone, Mingaladon Township, Yangon Region. The location map of the proposed project size is shown in Figure 3-1.

3.2. OBJECTIVES OF PROPOSED PROJECT

The proposed project intends to manufacture shoes on CMP basic and to export 100% of the finished products. WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED uses raw materials for shoes manufacturing from China and Taiwan.

3.2.1. Site Description

The total land area of the proposed project area is 2.502 acres. Factory started to construct in May 2014. Construction period is about 2 years. Commercial running for shoes factory started in November 2018. Its land area include security gate,dormitory,garbage storage room,transformer, generator room,overhead tank and fire safety pump,assembling,cutting section, painting, sewing & packing section and warehouse. Factory aerial photo and factory layout drawing are able to seen in Figure 3-1and Figure 3-2.

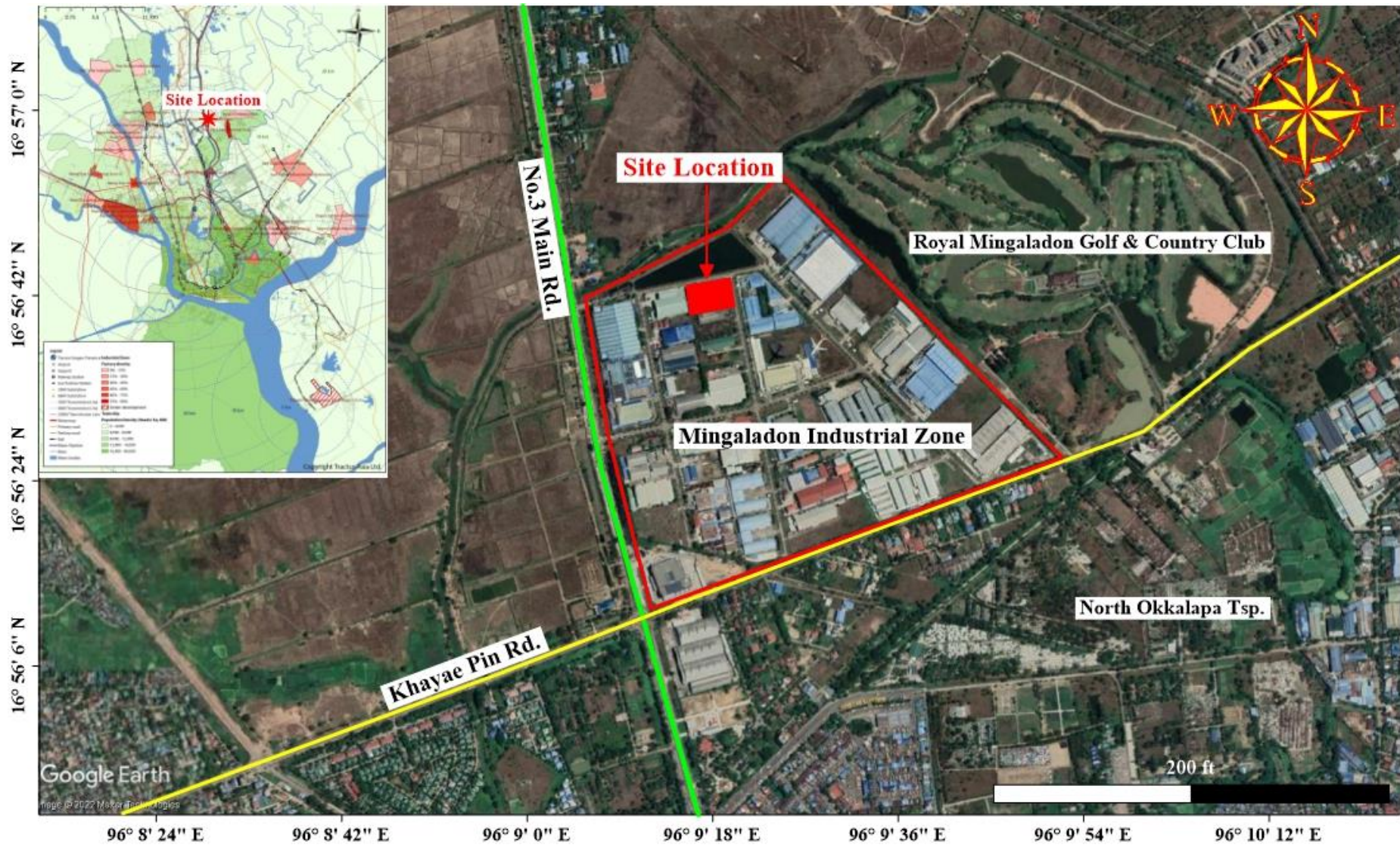
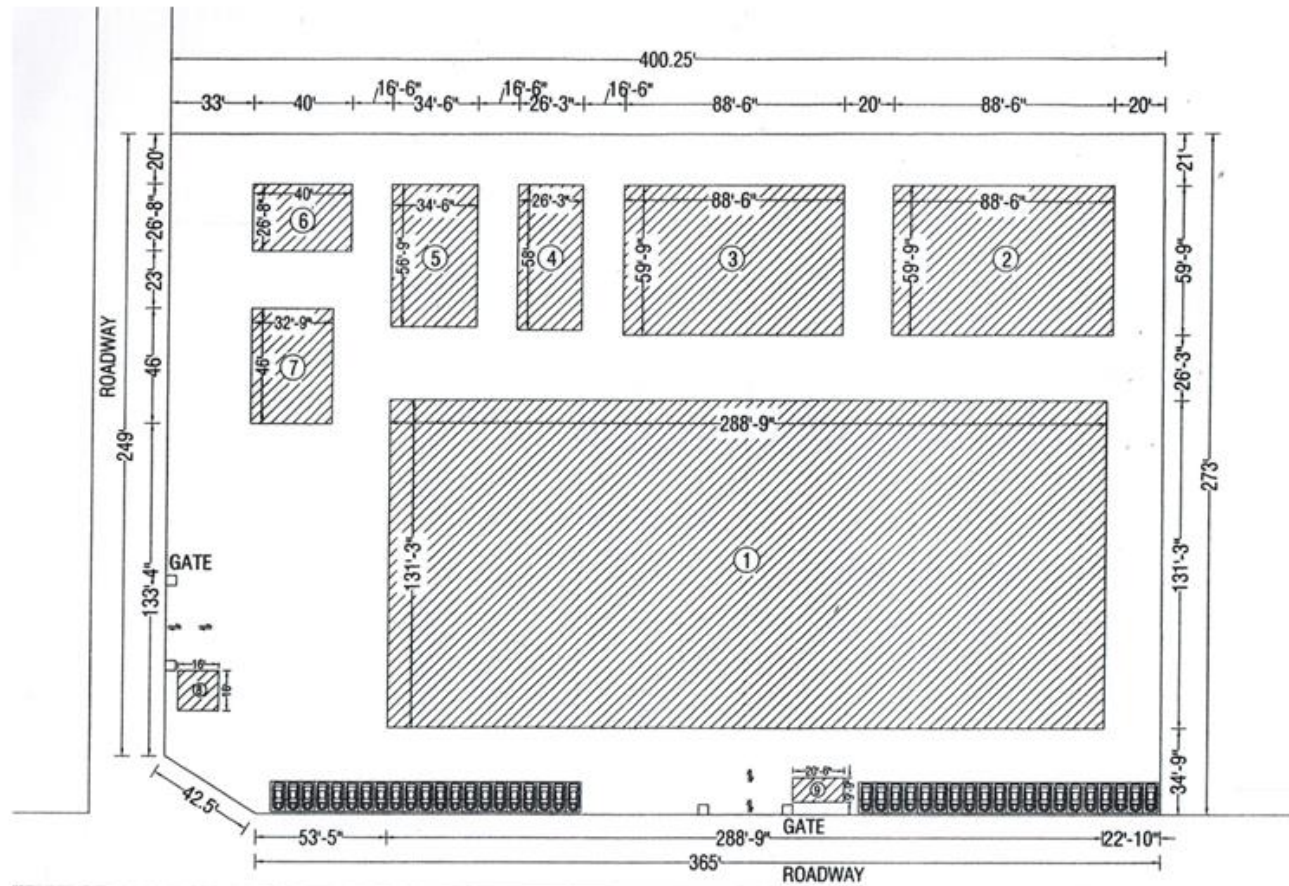


Figure 3-1 Location Map



1. Production Area 2. Dormitory 3. Dormitory 4. Dining Room 5. Dining Room 6. Dormitory 7. Generator Room
 8. Security Gate 9. Waste Storage Area

Figure 3-2 Factory Layout Drawing



Figure 3-3 Adjacent Map of Factory

3.3. PRODUCTION PROCESS

Shoemaking is a labor-intensive process, and the cost of producing the many components of the running shoe reflect the skilled labor necessary. Prepared rolls of synthetic material and rolls of dyed, split and suede leather are sent to the factory. Die machines stamp the shoe shapes, which are then cut out in cookie cutter fashion with various markings to guide the rest of the assembly. After being bundled and labeled, these pieces are sent to another part of the factory where they'll be stitched. The pieces that will form the upper part of the shoe are stitched or cemented together and the lace holes punched out. The insole is stitched to the sides of the upper. Stiffening agents are then added to the heel region and toe box, and an insole board is inserted. The completed upper is heated and fitted around a last, a plastic mold that forms the final shape of the shoe. The upper now has the exact shape of the finished shoe. Pre-stamped and cutout forms of the midsole and outsole or wedge are layered and cemented to the upper. The shoe is removed from the last and inspected. The process flow diagram for Sports Shoes manufacturing is illustrated in Figure 3-4. During operation, the proposed factory is expected to produce bag products as per Table 3-1.

Total production rate is from 2,400,000 pcs to 3,512,529 pcs for first 10 years. Finished good products exported to American, Europe, Australia, Japan, American and Canada.

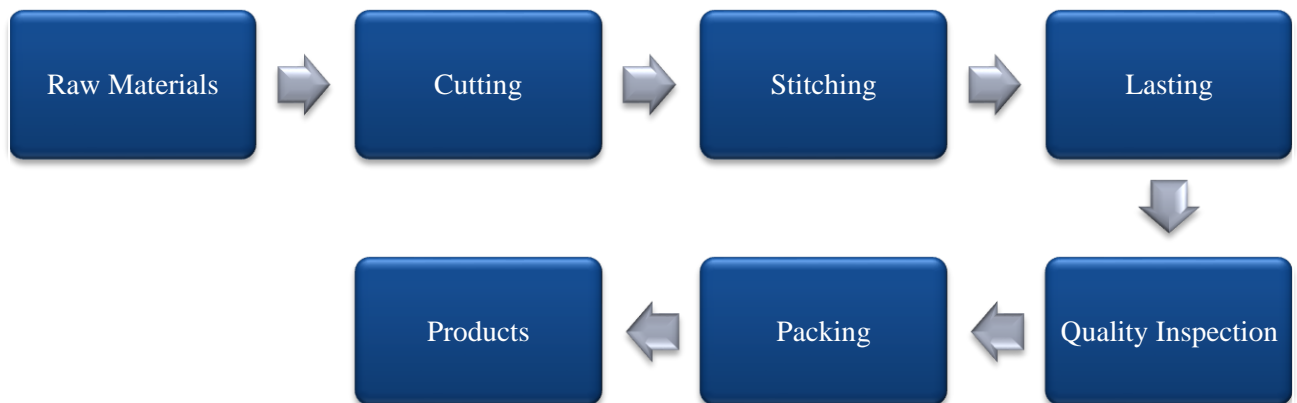


Figure 3-4 Production Flow Diagram



Raw Materials



Cutting



Stitching



Assembling the upper and the insole



Attaching the upper and bottom parts

Quality Inspection

Figure 3-5 Production Photos of WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED

Table 3-1 Annual Production Rate

No.	Particular	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6-10
1	PVC/ PU Sports Shoes	PCS	1,680,000	2,066,400	2,273,040	2,295,770	2,341,686	2,458,770
2	Cotton/ TC Sports Wears and Sports Shoes/ Canvas	PCS	120,000	147,600	162,360	163,984	167,263	175,626
3	Polyester/ Nylon Sports Wears and Sports Shoes	PCS	120,000	147,600	162,360	163,984	167,263	175,626
4	PVC/ PC with Leather Trim Sports Wears and Sports Shoes	PCS	72,000	88,560	97,416	98,390	100,358	105,376
5	Fabric with Leather Trim Sports Wears and Sports Shoes	PCS	48,000	59,040	64,944	65,593	66,905	70,251
6	Leather Sports Wears and Sports Shoes	PCS	240,000	295,200	324,720	327,967	334,527	351,253
7	PVC/ PC Wallets/ Belts	PCS	48,000	59,040	64,944	65,593	66,905	70,251
8	Leather Wallest/ Belts	PCS	72,000	88,560	97,416	98,390	100,358	105,376
			2,400,000	2,952,000	3,247,200	3,279,672	3,345,265	3,512,529



Figure 3-6 Products Photo

3.4. UTILITIES

3.4.1. Raw Material

The main Raw Materials are leather, suede, synthetic, fiber, PVC, PE, Taping, Adhesive and etc. which imported from China and Taiwan. List of Raw materials are described in Table 3-2

Table 3-2 List of Raw Materials Requirement

No.	Particular	Unit	Year -1	Year -2	Year -3	Year -4	Year -5
1	2.4 – 2.6 mm full grain leather	SCF	105,510	110,786	116,325	122,142	128,247
2	2.0 – 2.2 mm suede	SCF	31,860	33,453	35,126	36,882	38,726
3	54" 0.7 mmm Synthetic	Yard	2,550	2,678	2,811	2,952	3,100
4	54" 1.4 mm micro fiber	Yard	3,210	3,371	3,539	3,716	3,902
5	54" 2.1mm PVC	Yard	1,440	1,512	1,588	1,667	1,750
6	44" 2.0MM PE	Yard	930	977	1,025	1,077	1,130
7	840D taping + adhesive	Yard	5,100	5,355	5,623	5,904	6,199
8	44" 6.0mm EVA + 5 MMT50+ fabric	Yard	2,730	2,867	3,010	3,160	3,318
9	44" 6.0mm EVA. Adhesive	Yard	300	315	331	347	365
10	44" 5.0mm EVA. Adhesive	Yard	1,920	2,016	2,117	2,223	2,334
11	54" 2.0mm PVC HD foam	Yard	660	693	728	764	802
12	54" 0.8mm BC8 PVC	Yard	2,100	2,205	2,315	2,431	2,553
13	36" 1.0MM C 10PS GLUE	Yard	450	473	496	521	547
14	54" 0.8MM adhesive	Yard	1,320	1,386	1,455	1,528	1,604
15	15 mm webbing	Yard	15,000	15,750	16,538	17,365	18,233
16	44" 180g velvet + 3mm PE	Yard	7,080	7,434	7,806	8,196	8,606
17	44" 180g velvet + 4MM K329+20g T/C PE+fabric	Yard	5,850	6,143	6,450	6,772	7,111
18	Velcro/loop. Velcro hook	Yard	9,750	10,238	10,749	11,287	11,851
19	36" 1.8mm H18w double side glue	Yard	3,000	3,150	3,308	3,473	3,647
20	Hardness (lateral plate) (Manual plate) (Heel) (Front Shin Plate) (Top gaiter) (Calf)	Pair	30,000	31,500	33,075	34,729	36,465
21	TPR (98A)	Pair	30,000	31,500	33,075	34,729	36,465
22	Hardness (98A) (overstraps)	Strip	300,000	315,000	330,750	347,290	364,650
23	Hardness Pom (98A) (Recrivey)	Piece	240,000	252,000	264,600	277,832	291,720
24	Rubber 83A (Rubber heat shield)	Pair	30,000	31,500	33,075	34,729	36,465
25	Hardness N66. (buckle base)	Set	240,000	252,000	264,600	277,832	291,720
26	Rubber (85°) (outsole)	Pair	30,000	31,500	33,075	34,729	36,465
27	Alum lever (Buckle lever)	Set	240,000	252,000	264,600	277,832	291,720

No.	Particular	Unit	Year -1	Year -2	Year -3	Year -4	Year -5
28	Silver (steel toe piece) (Bolt) (Screw for buckle)	Pair	1,380,000	1,449,000	1,521,450	1,597,534	1,677,390
29	Silver/blk (Secure bolt)	Piece	600,000	630,000	661,500	694,580	729,300
30	Sewing thread	Pair	30,000	31,500	33,075	34,729	36,465
31	Velvet+EVA	Pair	30,000	31,500	33,075	34,729	36,465
32	Tpu, injece W/Steel Shank	Pair	30,000	31,500	33,075	34,729	36,465
33	Rubber (90°) (Insole)	Pair	30,000	31,500	33,075	34,729	36,465
34	Outsole Sewing Thread	Pair	30,000	31,500	33,075	34,729	36,465
35	Steel SHNK + TPU	Pair	30,000	31,500	33,075	34,729	36,465
36	Glue	Pair	30,000	31,500	33,075	34,729	36,465
37	Packaging Matrials	Pair	30,000	31,500	33,075	34,729	36,465

3.4.2. Machinery and Equipment

List of machinery and equipment required for WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED is following in Table 3-3. And all the machines are imported from China.

Table 3-3 List of Machinery Ingredients Fabric Off-Road Motorcycle Shoes & Accessories

Sr No.	Item	Unit	Quantity
1.	2.4 – 2.6mm full grain leather	Sqf	3.52
2.	2.0 – 2.2mm Suede	Sqf	1.06
3.	54" 0.7mm Synthetic	yard	0.09
4.	54" 1.4mm micro fiber	yard	0.11
5.	54" 2.1mm PVC	yard	0.05
6.	44" 2.0mm PE	yard	0.03
7.	840D taping + adhesive	yard	0.17
8.	44" 6.0mm EVA + 5mm T50 fabric	yard	0.09
9.	44" 6.0mm EVA, Adhesive	yard	0.01
10.	44" 5.0mm EVA, Adhesive	yard	0.06
11.	54" 2.0mm PVC HD foam	yard	0.02
12.	54" 0.8mm BC8 PVC	yard	0.07
13.	36" 1.0mm C10PS glue	yard	0.02
14.	54" 0.8mm Adhesive	yard	0.04
15.	15mm Webbing	yard	0.50
16.	44" 180g velvet + 3mm PE	yard	0.24
17.	44" 180g velvet + 4mm K329+20g T/C PE+fabric	yard	0.20
18.	Velcro.loop. Velcro hook	yard	0.33
19.	36" 1.8mm H18w double side glue	yard	0.10

Sr No.	Item	Unit	Quantity
20.	Hardness (Lateral plate) (Medical Plate) (Heel) (Front Shin Plate) (Top gaiter) (Calf)	pair	1.00
21.	TPR (98A)	pair	1.00
22.	Hardness (98A) (over straps) (Straps)	strip	10.00
23.	Hardness Pom (98A) (Recrivey)	piece	8.00
24.	Rubber 83A (Rubber heat shield)	pair	1.00
25.	Hardness N66. (Buckle base)	set	8.00
26.	Rubber (85°) (Outsole)	pair	1.00
27.	Alum lever (Buckle lever)	set	8.00
28.	Silver (steel toe piece) (Bolt) (Screw for buckle base)	pair	46.00
29.	Silver/ blk (Secure bolt)	piece	20.00
30.	Sewing thread	pair	1.00
31.	Velvet + EVA	pair	1.00
32.	Tpu, injece W/ Steel Shank	pair	1.00
33.	Rubber (90°) Insole	pair	1.00
34.	Outsole Sewing Thread	pair	1.00
35.	Steel ShNK + Tpu	pair	1.00
36.	G/ Ve	pair	1.00
37.	Packaging Matrials	pair	1.00

3.4.3. Human Resource

Human resource required by foreign experts/technicians and local persons for administrative and production process are about 224 persons and 3 person of foreign technicians which are also described in Table 3-4. Total working days are about 265 days per year.

Table 3-4 Employment Schedule of WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED

No	Position	Local Person	Foreign Technicians
1	Financial Controller	1	1
2	Office Manager	1	
3	HR Supervisor	1	
4	Line Supervisor	1	2
5	Purchase Executive	1	
6	Interpreter	2	
7	Accountant	1	
8	Office Staff	4	
9	Priduction Leader	8	
10	Warehouse Leader	1	
11	Cutting Leader	1	
12	Quality Assurance Leader	2	

No	Position	Local Person	Foreign Technicians
13	Mechanic Leader	1	
14	Mechanic	2	
15	Security	2	
16	Driver	1	
17	Skill Worker	134	
18	Semiskill Worker	22	
19	Unskilled Worker	36	
20	Cleaner	2	
	Total	224	3

3.4.4. Water Requirement

Industrial zone has no centralized water supply system and the factory gets water from the tube wells installed inside the factory compound. The main water use in the proposed project is for domestic usage such as for personal washing, food preparation, and washing of utensils. Drinking water provides by outsource of drinking water suppliers. Water storage tank and drinking water supply for WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED factory are described in Figure 3-7. Main source of water supply will be provided by tube well water (ground water 50ft deep) in which ground water is pumped by 4 inches PVC pipe and high of water storage tank is (60' x 17' x 6'). Height of water storage tank for fire safety is (60' x 17' x 6'). Capacity of domestic water storage tank and fire safety water tank are 45900 gallons storage tanks respectively. The tube well and filtration tower are located at between the office building and operation factory building. The factory uses water about 393,967 gallons annually.



Figure 3-7 Underground water storage tank and water supply

3.4.5. Electricity and Fuel Requirement

The electricity supply during full operation will be from the 125 kVA transformer. There will be two standby 300 kVA and 500 kVA generators for backup in case of power cut off. The total estimated demand for fuel for generators is diesel 13816.92 liters per month. Estimated electricity usage is about 6916 units per month.



Figure 3-8 Electricity Facilities at William (Myanmar) Industrial Company Limited Factory

3.5. FACILITIES

3.5.1. Status of the Factory

William (Myanmar) Industrial Co., Ltd. is using ground water for both industrial and household purpose, which is supplied by deep tube well. The factory also has generators for electricity generation. The fuel used in the industry is Diesel and Purchased electricity. The sanitary liquid waste of the factory is stored in septic tank.

The major pollution caused by the factory's operation are water pollution by discharging liquid waste generated in wet process i.e. air pollution by generator's effluent gas emission, noise pollution created during the operation of generator and other machines.

Solid waste (recycle waste) such as broken machine parts, paper box, fabric scraps, etc., are hand over to local waste buyer. Although the factory causes some pollution but also has a positive side and that is the factory has created employment for many people, due to this factory local community has built up daily.

3.5.2. Fire hazards protect facility

Fire extinguishers, fire hose reels and fire hydrants are installed in the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening is also constructed with the capacity of 45900 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 3-9.



Figure 3-9 Firefighting system

3.5.3. 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 3-10. 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.



Figure 3-10 Drainage and Toilet facility

3.5.4. 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.



Plastic container for garment waste



Plastic container for packing waste

Figure 3-11

Waste storage photo

3.5.5. Toilet Facility

Currently toilet facilities have hygienic toilets already provided and categorized by gender, marked distinctly for men and women by signs and symbols. In addition, toilet areas will also be provided with water sinks, necessary toiletries, and hand washing soaps, hand drying facilities, and waste bins. Total numbers of toilet for male are 37 rooms and for female are 15 rooms.



Figure 3-12 Toilet Facility in Factory

3.5.6. Ventilation System

The factory ventilation systems consist of natural ventilation system and mechanical ventilation system. The mechanical ventilation system is provided in office room, production area, toilet, kitchen and dormitory.



Figure 3-13 Ventilation System at factory

3.6. GENERATION OF WASTE, EMISSION AND DISTURBANCES

3.6.1. Industrial Wastes

Wastes generated from the Sports Shoes manufacturing factory are leather scraps of 50% from cutting section, 35% from sewing section and 15% from packing section. In addition, packing waste of plastic sheet, carton box and fabric paper tube are generated from cutting line and packing section. Total amount of waste about maximum 1,209 kg per day are generated from operation process.

3.6.2. Human wastes

The number of staff and workers required in the day shift for the factory is maximum 372 persons during operation. Solid waste generated from maximum amount of operators and office staffs with assumption of waste generation rate at 1,116 kg/day was calculated based on solid waste generation rate of 3.06 kg/person/day¹.

Domestic wastewater generated by maximum amount of 372 persons with assumption rate 228 m³/day was calculated based on domestic wastewater generated rate of 0.1 m³/person/day². This water will be released in operation hour discharge to septic tank or factory drainage.

The project will be generated solid waste, liquid waste and hazardous waste from the operation of the William (Myanmar) Industrial factory. Detail description of waste generation and waste amount are shown in Table 3-5.

Table 3-5 Waste generation and waste amount

Waste		Type of wastes	Estimated waste amount	Source of generation
Solid waste	Re-usable	Residual pieces of fabric scraps	12% a roll of fabric (kg)	Production line and cutting line
		Raw material cutting wastes	1500 kg / month	
		Disposed packaging materials, paper or plastic wrapping	100 kg / month	Materials store and supply packaging
	Non re-usable	Food residues, domestic waste	92 kg / day*	Canteen, Kitchens, dormitory
Liquid waste		Sanitary discharge water	228 m ³ /day*	Toilet facility, kitchen and canteen
Hazardous waste		Residual chemicals, use chemical container		Chemical usage and store area
		Oil leakage and spills	-	Operation of generator and movements of vehicles

3.7. ALTERNATIVE PROJECT SITE

No alternative site has been proposed aside from this area since the proposed project area is situated within Yangon Industrial Zone, Mingaladon Township, Yangon Region, which has been designated and already finished the construction phase during IEE study. The factory already has endorsement from Myanmar Investment Commission.

¹ The Yangon City solid waste generation rate as of 2012 is 0.39 kg per person per day (Pollution Control and Cleansing Department, Yangon City Development Committee, 2014).

² The domestic wastewater generation was based on typical wastewater generation rate of 0.1 m³ per person per day (Metcalf & Eddy, 2004)

3.8. DECOMMISSIONING PHASE

The proposed project investment duration is 34 years and they will close out the project according to their MIC proposal.

4. BRIEF DESCRIPTION OF SURROUNDING ENVIRONMENT

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

4.1. METHODOLOGY FOR DATA COLLECTION AND ANALYSIS

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

- Onsite Measurements and Analysis – Baseline parameters such as air quality and noise quality of the existing project site during the operation phase were measured onsite. For water quality parameters was also measured on site and sample raw water and waste were sent to respective laboratories for analysis. The analyzed results are mentioned in this chapter.
- Secondary data collection of proposed project site area – Socio economic condition, physical/biological environment, and weather data are collected from official township data of Mingaladon Township, Yangon Region.

4.2. ENVIRONMENTAL BASELINE STUDY

The filed 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. The environmental setting around the project site and monitoring location is shown in

Table 4-1 Location of the Survey Point

Type of Survey	Coordinates	Survey point	Description of survey point
Air Quality Measurement Point	16°56'41.26"N 96° 9'17.40"E	Project site	Outdoor area of the factory
Noise Level (NL)	16°56'40.55"N 96° 9'16.71"E	Project site	Production area of the factory



Figure 4-1 Air and Noise Monitoring Point in Factory

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.

4.2.1. Site Survey and Environmental Monitoring

The baseline environmental quality at the Project Site and its immediate surroundings was established by wastewater, ambient air quality samples and noise level measurements at immediate surrounding areas. To determine the existing baseline environmental quality within the project site on 5th May 2022.

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 4-2 Relative Humidity and Temperature Measure at Proposed Project

Item	Parameter
Air quality	(1) Sulfur dioxide (SO ₂), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO ₂), (4) PM ₁₀ and PM _{2.5} , (5) Ozone (O ₃), (6) Carbon Dioxide (CO ₂),
Noise level	Indoor sound level (LAeq)
Water	pH, Apparent Colour, Turbidity, TDS, Total solids, Chloride, Nitrate, Arsenic, Cadmium, Copper, Iron, Lead and Zinc

4.2.2. Air Quality

To determine the existing baseline ambient air quality status within the project site on 5, May 2022, 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 AQM - 09 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°56'52.89"N Longitude 96°11'16.34"E.

According to the result, PM_{2.5} is a little bit more than the guideline limit but it can be assumed that is neglectable.

Table 4-3 Observed Air Quality Results

Parameters	Observed value	Guideline value	Unit	Organization	Guideline Averaging Period	Measuring period
PM _{2.5}	25.52	25	µg/m ³	NEQG	24 hrs	8 hrs
PM ₁₀	29.23	50	µg/m ³	NEQG	24 hrs	8 hrs
SO ₂	4.9	500	µg/m ³	NEQG	10 minutes	8 hrs
NO ₂	11	200	µg/m ³	NEQG	1 hr	8 hrs

Parameters	Observed value	Guideline value	Unit	Organization	Guideline Averaging Period	Measuring period
O ₃	3	100	ppm	NAAQS	8 hrs	8 hrs
CO	0.3	10	ppm	ACGIH	24 hrs	8 hrs
CO ₂	1	400	ppm	EPA	24 hrs	8 hrs

NEQG = National Environmental Quality (Emission) Guideline

NAAQS = National Ambient Air Quality Standards were developed by the U.S. EPA

ACGIH = the American Council of Governmental Industrial Hygienists recommends



Figure 4-2 Outdoor Air Quality Measurement Photos

4.2.3. Noise

The Noise level was measured by using Digital Sound Level Meter for working 8 hours on 5th May 2022. The average noise level in the project site area is presented in Table 4-4 compared with NEQ guideline. However, according to the Noise source monitoring at operation area (inside the production sector) of noise level is normal the acceptable level of National Environmental Quality (Emission) Guideline. [4]

However, according to the noise source monitoring at factory (inside the production sector) of noise level is slightly above the acceptable level of National Environmental Quality (Emission) Guideline. There is no building near the project area and the noise is temporary so that noise cannot affect to the surrounding.

Table 4-4 Comparison of Noise Level measurement

Date and Time	Location	GPS value	Result value	NEQ Guideline
5 May 2022 (9:00 am to 5:00 pm)	Operation Area	16°56'40.31"N 96° 9'16.77"E	72.63	70 dBA

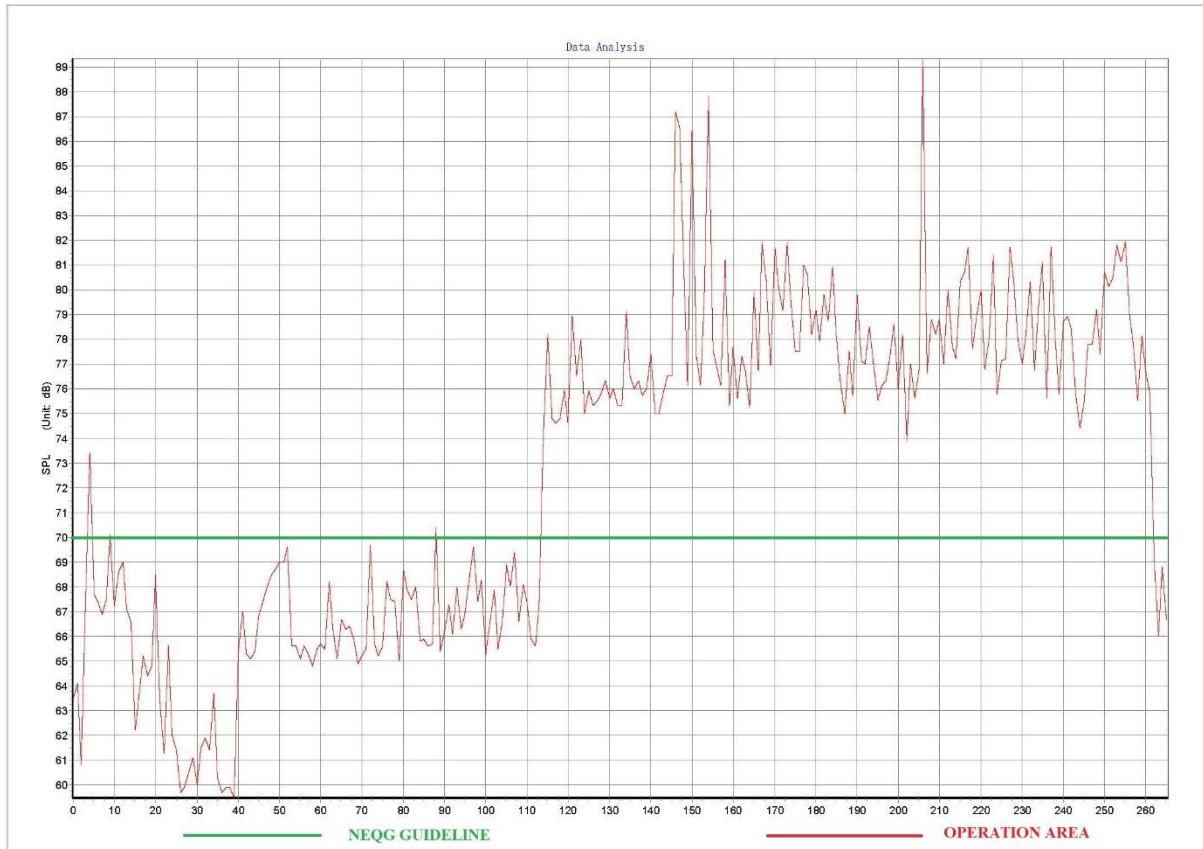


Figure 4-3 Noise Level Result Graph



Figure 4-4 Sound level measurement photo

4.2.4. Water Quality

The baseline data on ground water quality was collected on 1 November 2021 with respect to WHO Guidelines for wastewater standard. The collected were tested at Goshu-A1 Laboratory. Analyzed results of wastewater compare with wastewater (SM), APHA, AWWA, WEF guideline.

Table 4-5 Coordinated point of Wastewater Collection Point

Sampling point	GPS Value	Description
Wastewater	16°56'38.84"N 96° 9'15.74"E	wastewater: Domestic use of factory site In site pH level testing in sampling point. The pH level is 7.9.

4.2.4.1. Wastewater Result

The parameters such as pH, TDS, TSS, COD, BOD, Nitrate-Nitrogen, Dissolved Oxygen are measured. According to the analyzed result, all the parameters are under the guidelines. Laboratory analysis results can be seen in **(Appendix)** for wastewater. Drinking water for employees is bought from other supplier.

Table 4-6 Wastewater Quality Laboratory Results

No	Quality Parameters	Results	Method	Detection Limit	NEQE Guideline limit
1	pH	6.8	*SM 2012:4500 H+B Electrometric	-	6-9
2	TDS	107 mg/l	*SM 2012:2540C Dried at 180°C	100	-
3	TSS	32 mg/l	*SM 2012:2540D Dried at 103° - 105°C	10	50
4	COD	64.5 mg/l	*SM 2012:5220D Close Reflux, Colorimetric	10	250
5	BOD	40.8 mg/l	*SM 2012:5210B 5- Day BOD Test	1	50
6	Nitrate-Nitrogen	<0.01 mg/l	EPA, Brucine Colorimetric	0.1	-
7	Dissolved Oxygen	6 mg/l	*SM 2012: 4500-OG Membrane Electrode	-	-

4.2.5. Light

Activities of the workers in the bag factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in the Sports Shoes factory is presented. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in Sports Shoes factory is provided in Table 4-7.

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 bag factory, like the inspection points (on-floor and in stores), sampling, and the finishing section, as these areas are crucial for the quality of the production. The tasks involved in these areas require high levels of worker focus and accurate lighting to ensure lower errors and defects passing on to the next stage.

However, according to the result of light measurement at operation area (inside the production sector) is in good condition and at the acceptable level of standard.

Table 4-7 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 4-5 Light Quantity Measurement Photo

Table 4-8 Result of Light Measurement in WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED

No.	Location	Measure value (Lux)	Standard*
1	Warehouse	350	300
2	Cutting Department	950	1000
3	Stitching Department	950	1000
4	Lasting Department	585	600
5	Packing Department	590	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).

4.3. PHYSICAL COMPONENT

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 convergence on the Yangon and Bago River region about 34 km away from the Gulf of Martaban. The proposed project area is situated at War Ta Yar Industrial Zone, Mingaladon 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 (Pliocene to Recent), the non-marine fluvial sediments of Irrawaddy 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.

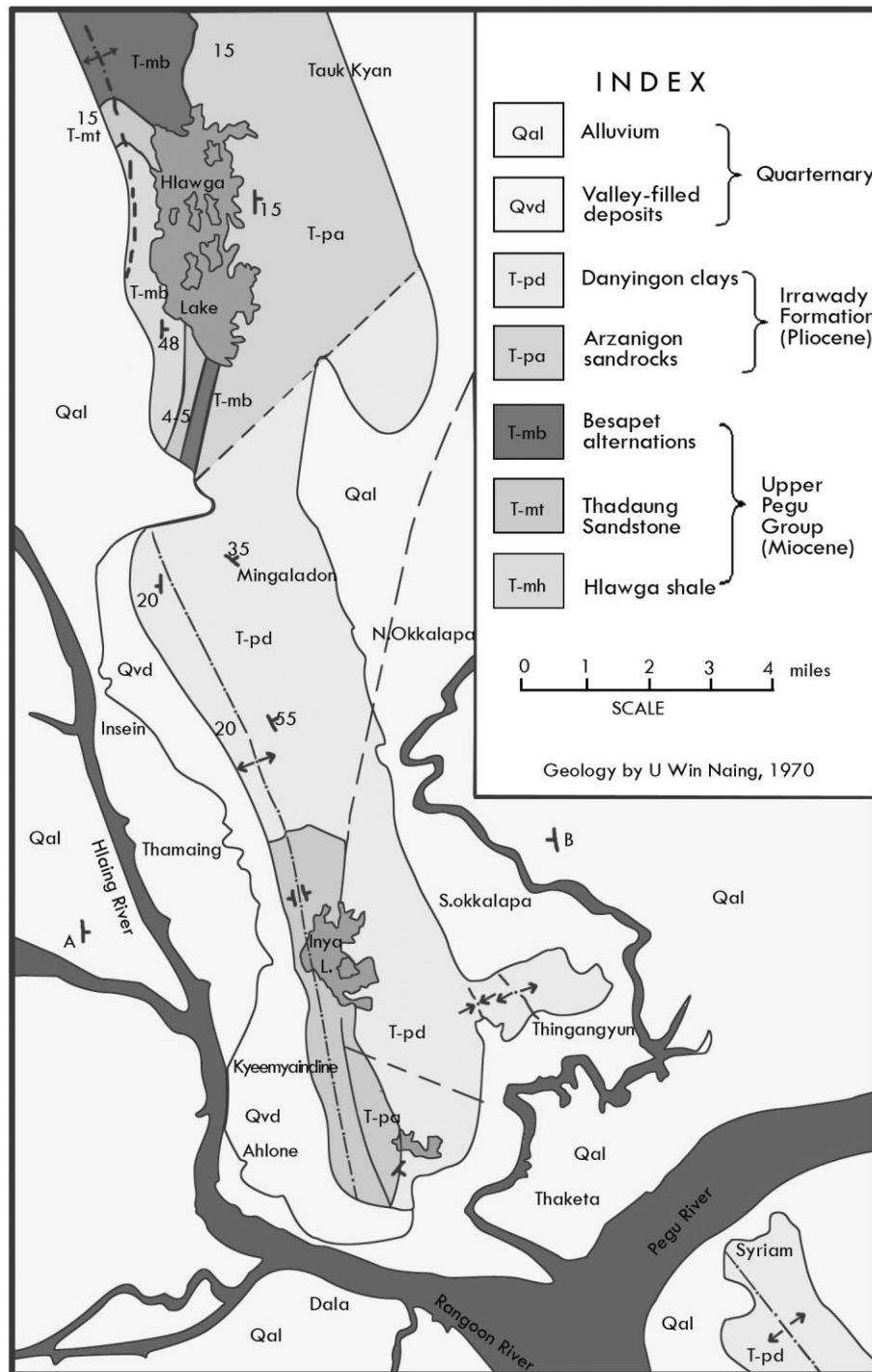


Figure 4-6 Geological Map of Yangon Region

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. ^[2]

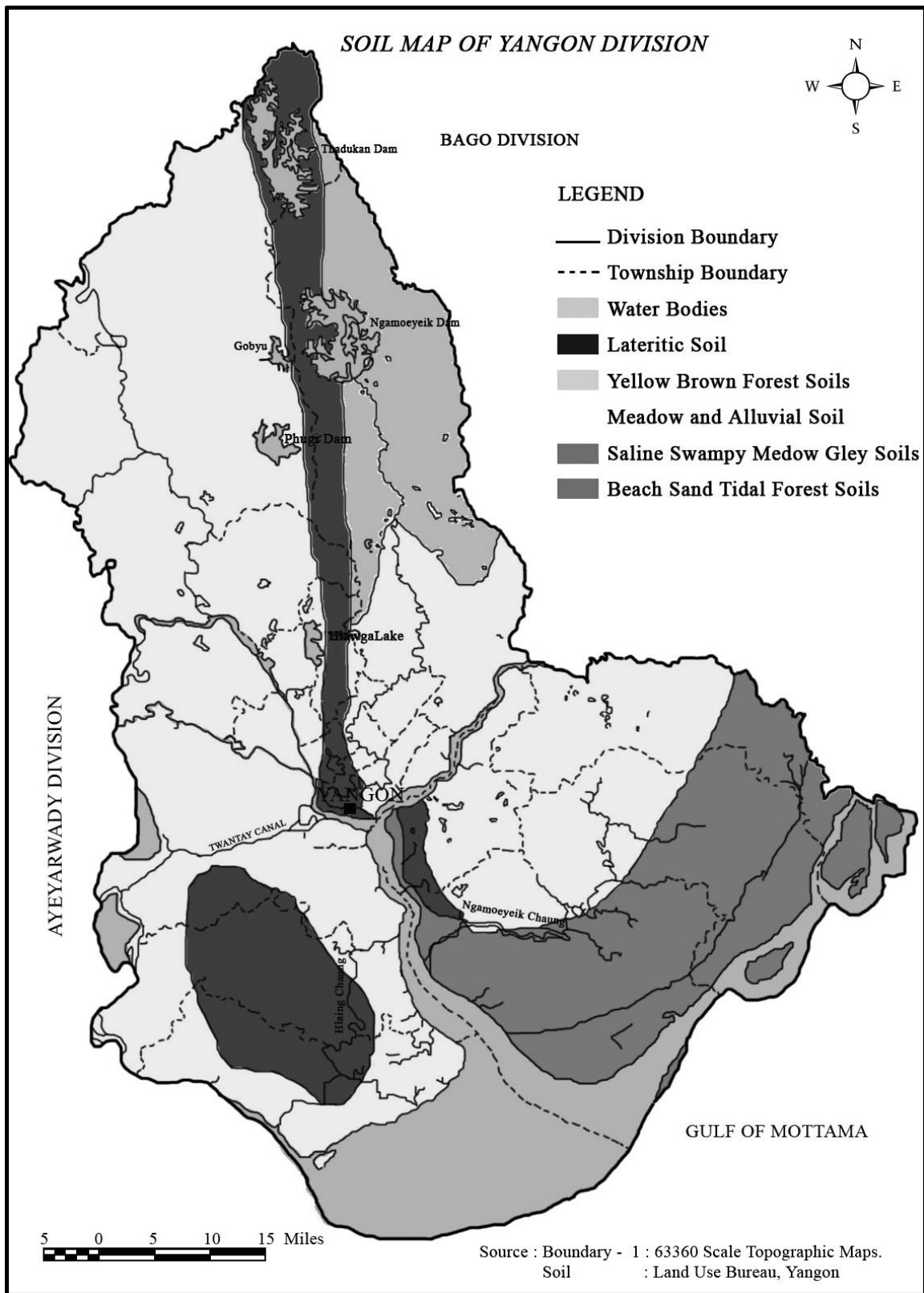


Figure 4-7 Soil map of Yangon (Source: Land use of Bureau of Yangon)

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. ^[2]

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 °F to 97 °F and is rarely below 62 °F or above 101 °F. ^[6]

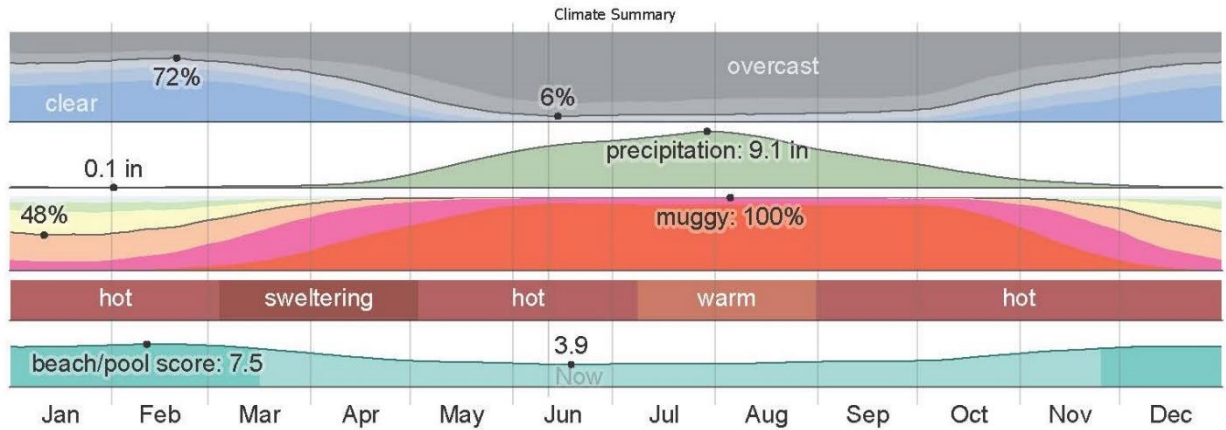


Figure 4-8 Climate Summary of Yangon Region

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 °F. The hottest day of the year is April 11, with an average high of 97 °F and low of 78 °F.

The cool season lasts for 3.9 months, from June 2 to September 29, with an average daily high temperature below 87 °F. The coldest day of the year is January 10, with an average low of 67 °F and high of 88 °F. [6]

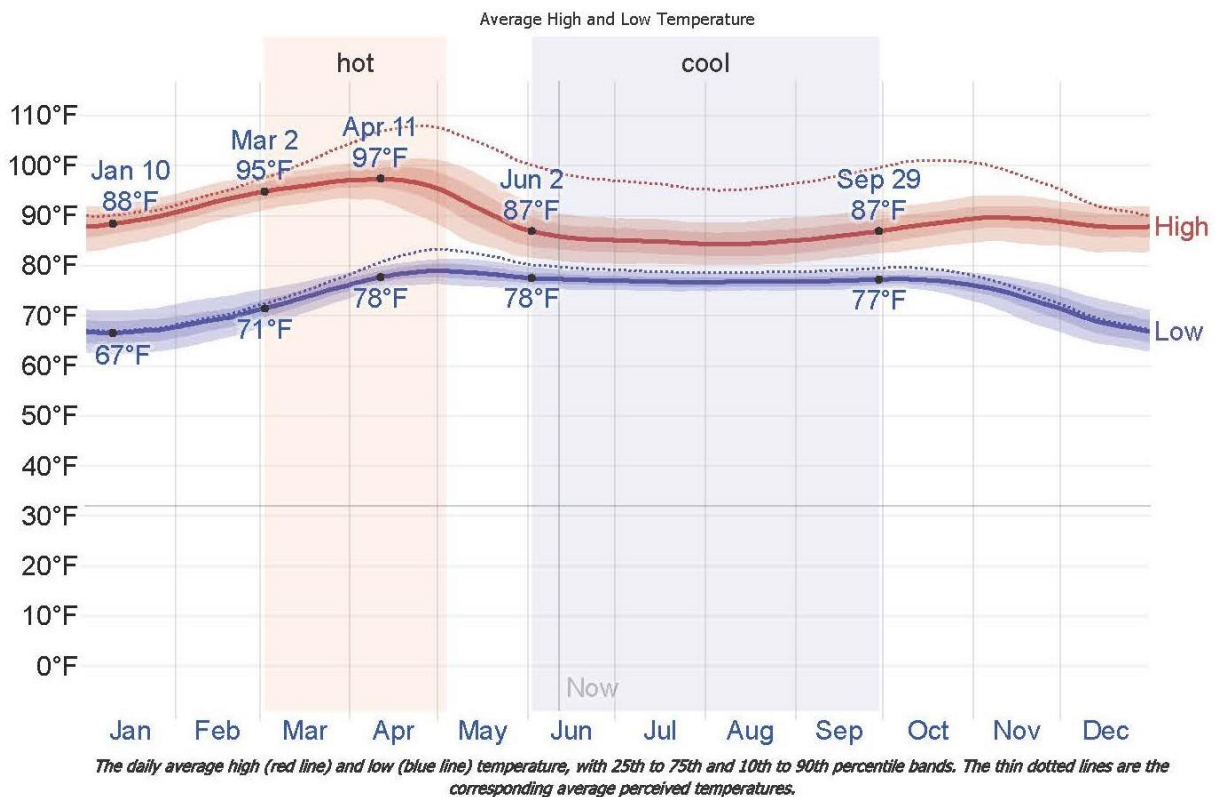


Figure 4-9 Average Temperature of Yangon Region

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. [6]

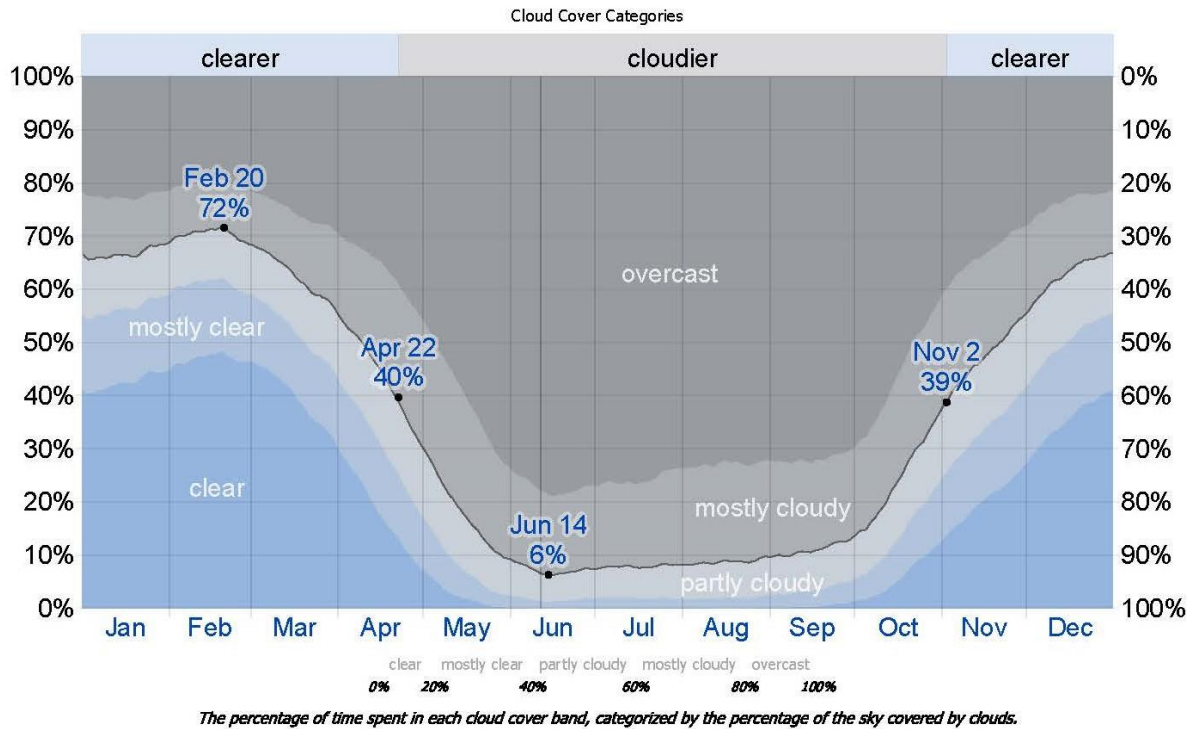


Figure 4-10 Cloud Cover Categories

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. [6]

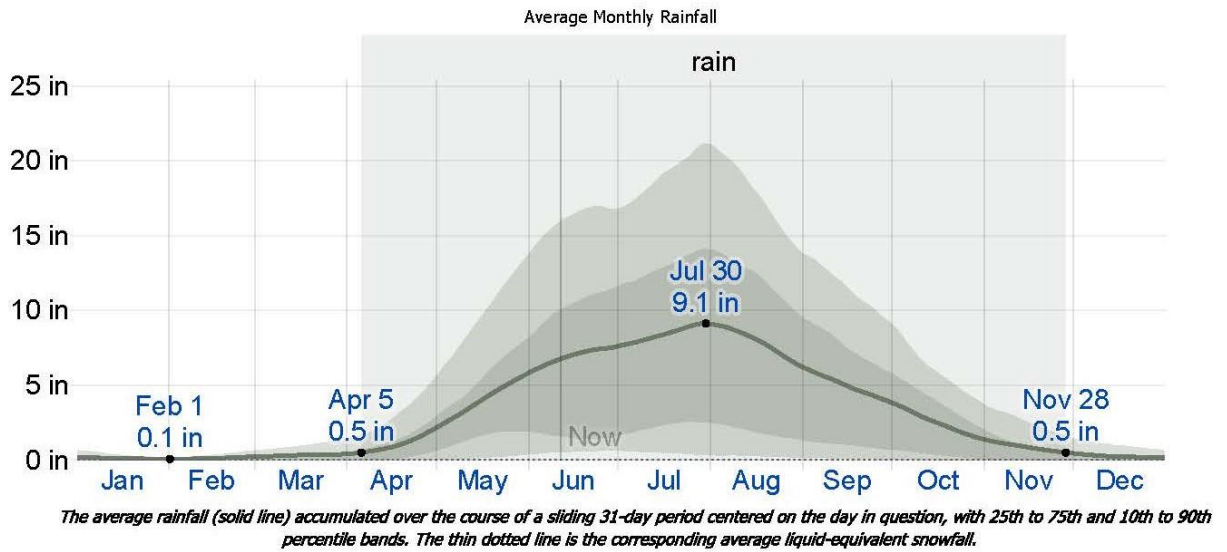


Figure 4-11 Average Monthly Rainfall at Yangon Region

Table 4-9 Auunal Rainfall and Temperature

Year	Rainfall		Temperature	
	Raining day	Rainfall value	Summer season Max (°C)	Winter season Min (°C)
2016	126	104	38	15.7
2017	117	101.93	39	15.5
2018	81	79.03	39	15.5
2019	135	132.85	38	15.8

Source: Department of Administrative Mingaladon Township, Regional Data (www.gad.gov.mm)

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. In May 11, 2020, the weather condition of prosed project is 35.3 °C average temperature and 38.9 % average humidity. [6]

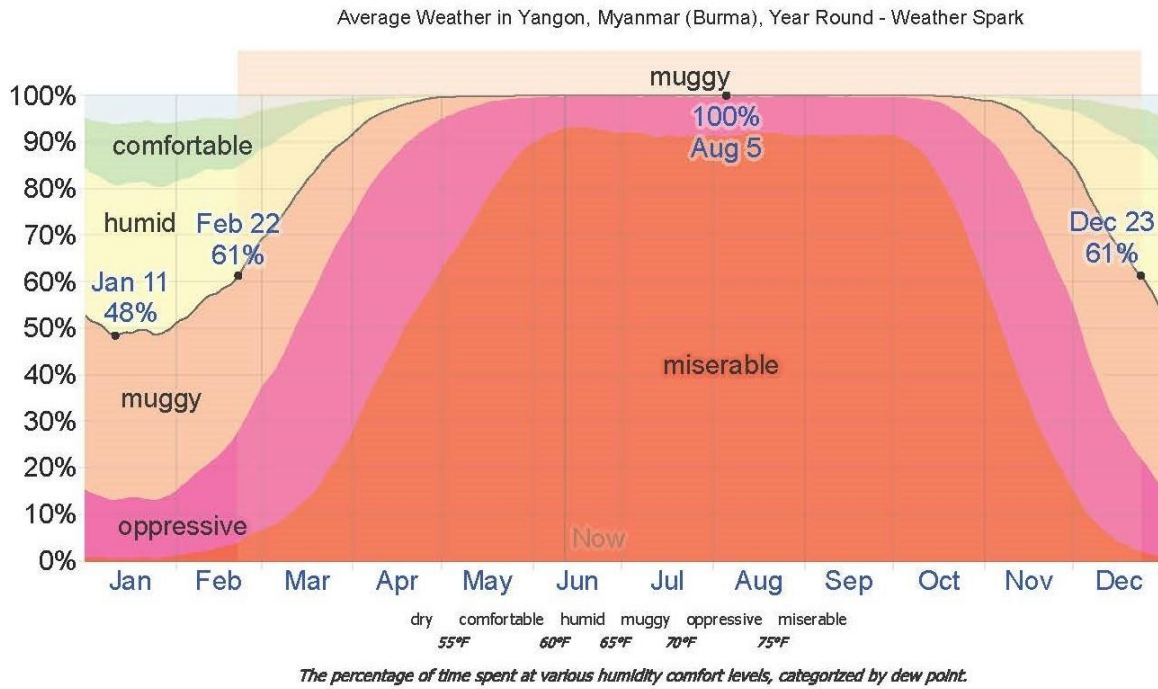


Figure 4-12 Humidity of Yangon

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 windier 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. [6]

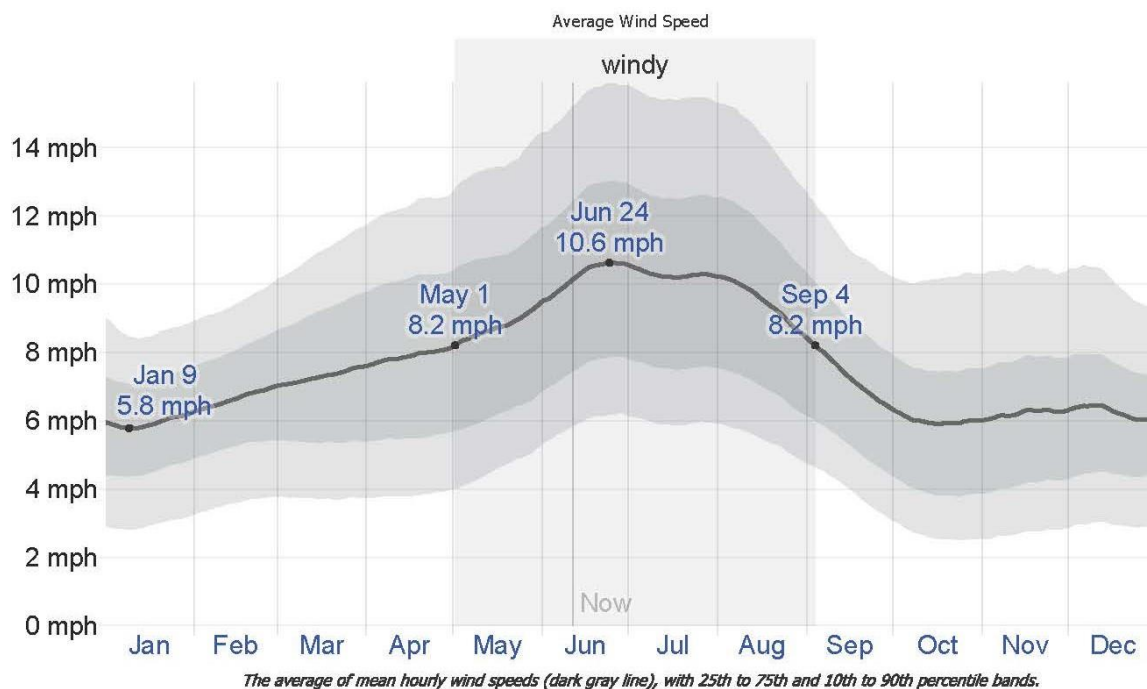


Figure 4-13 Average Wind Speed in Yangon

4.4. BIOLOGICAL COMPONENT

The proposed project site is not located in or near a sensitive ecosystem as the proposed project area is situated in the Yangon industrial zone. The Project Site is a built-environment and the species of flora surveyed at the site are native species uncommon to the Yangon area. There were no protected species or species of conservation value identified.

4.5. SOCIO-ECONOMIC COMPONENT

4.5.1. Population

WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED is located across Mingaladon Township in Yangon Region. In 2019, the population of Mingaladon Township is about 263,798 people as present in Table 4-10. ^[1]

Table 4-10 Population of Males and Females at Mingaladon Township (2019)

Item	Over 18 year			Under 18 year			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Urban	50,578	59,513	110,091	19,242	20,564	39,806	69,820	80,077	149,897
Rural	31,976	44,422	76,38	18,459	19,044	37,503	50,435	63,466	113,901
Total	82,554	103,935	186,489	37,701	39,608	77,309	120,255	143,543	263,798

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

4.5.2. Religion

The different kinds of religion present in Mingaladon Township are shown in Table 4-11. More than 90% of the people living in the township are Buddhists. ^[1]

Table 4-11 Religion in Mingaladon Township (2019)

Township	Buddhist	Christian	Hindu	Muslim	Other	Total
Mingaladon	252,156	4,339	3,232	4,071	-	263,798

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

4.5.3. Local Economy

Among regional towns, Mingaladon 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 Mingaladon Township are airport, railway, port, and car road as presented in Table 4-12. ^[1]

Table 4-12 Transportation Route

Categories	Township		Miles
	From	To	
Mingaladon International Airport	Ananpin Quarter, Mingaladon Township		
Railway (Circular Railway)	Mingaladon	Golf Club	4.78
Yangon-Bago Road	Htauk Kyak Road	No. (3) Road	2.7
Myot Shaung Road	Ye Su Taung	Bago Lan Ma	0.7
No. (7) Road	Bago Lan Ma	Ywar Ma Quarter	3.2

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

4.5.4.2. Electricity

The electricity demand of Mingaladon 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 Mingaladon Township. The name and the located village tract/ ward of schools are described in Table 4-10. ^[1]

Table 4-13 List of major school in Mingaladon Township

No.	Name of School	Location
1	အထက (၁)	ပြည်တော်သာရပ်ကွက်
2	အထက (၂)	မင်္ဂလာဒုံဈေးရပ်ကွက်
3	အထက (၃)	ပဲခူးလမ်းရပ်ကွက်
4	အထက (၄)	ရွှေနံ့သာကျေးရွာအုပ်စု
5	အထက (၅)	မင်္ဂလာဒုံဈေးရပ်ကွက်
6	အထက (၆)	ကုန်းတလပေါင်ကျေးရွာအုပ်စု
7	အထက (၇)	သယ်န်းကျွန်းကြီးကျေးရွာအုပ်စု
8	အထက (၈)	ရွှေနံ့သာကျေးရွာအုပ်စု
9	အထက (၉)	ပျဉ်းမပင်ကျေးရွာအုပ်စု
10	အထက (ခွဲ)လ(၁၂)	ထောက်ကြန့်တိုးချဲ့ ရပ်ကွက်
11	အထက (ခွဲ)လ (၉)	ထောက်ကြန့်တောင်ပိုင်းရပ်ကွက်
12	အထက (ခွဲ)လ (၅)	ပြည်တော်သာရပ်ကွက်
13	အလက (၁)	၂(ခ)ရပ်ကွက်
14	အလက (၃)	၃/ခ ရပ်ကွက်
15	အလက (၄)	မင်္ဂလာဒုံဈေးရပ်ကွက်
16	အလက (၆)	ခမရ(၆၄၆)
17	အလက (၁၀)	ထောက်ကြန့်ဈေးရပ်ကွက်
18	အလက (၁၁)	ပြည်တော်သာရပ်ကွက်
19	အလက (၁၃)	သယ်န်းကျွန်းကြီးကျေးရွာအုပ်စု
20	အလကခွဲမ (၂၆)	ကာယရပ်ကွက်
21	အလကခွဲမ (၁၅)	ပေါင်းငူကျေးရွာ
22	အလကခွဲမ (၁၂)	မြသီတာရပ်ကွက်
23	အလကခွဲမ (၁၄)	နွယ်ခွေရပ်ကွက်
24	အလကခွဲမ (၂၇)	တောင်ပိုင်းရပ်ကွက်
25	အလကခွဲမ (၃၀)	မြောက်ပိုင်းရပ်ကွက်

No.	Name of School	Location
26	မင်္ဂလာဒုံမြို့နယ်ချုပ်	၂၅

Source: Department of Administrative Mingaladon 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 hypertension, diarrhea, dysentery and hepatitis. With reference to the Township Health Profile 2019 of Mingaladon Township, no accidental work injuries reported to the township hospital in 2013. The common diseases are shown in Table 4-14.

Table 4-14 Common Diseases in the Mingaladon Township

Diseases	Mingaladon Township	
	Morbidity	Mortality
Hypertension	921	13
Diarrhea (Per 100000P)	76	-
TB (Sputum+)(Per 10000P)	192	-
Dysentery	6	-
Hepatitis	392	-
HIV/AIDS	12	-

Table 4-15 Lists of hospital in the Mingaladon Township

Hospital Name	Beds/Services	Responsible
Pearl Hospital	50	Government
Infectious Diseases Hospital	100	Government
General Hospital	1000	Government
Defense Service General Obstetric Hospital	500	Government
Defense Service General Orthopadeic	500	Government
Padauk Clinic	-	Private
Zi Wa Ka Clinic	-	Private
Myayadanar Clinic	-	Private
Ar Yu Clinic	-	Private
Ar Yaw Gyan Clinic	-	Private
Nilar Clinic	-	Private
Nay Wunni Clinic	-	Private
Myat Saydanar Clinic	-	Private
Alinn Yaung Clinic	-	Private
Myityar Mon Clinic	-	Private
Ngwe La Min Clinic	-	Private

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

4.6. CULTURAL AND VISUAL COMPONENTS

Mingaladon 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. RISK ASSESSMENT AND MITIGATION MEASURE

5.1. IMPACT IDENTIFINE

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. In this IEE study, 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 Mingalardon Industrial Zone, Mingalardon Township, Yangon Region, there may have business opportunities to local people. Local people can have a market by selling foods, snacks and drinks nearby the factory.

5.1.2. Negative Impact

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

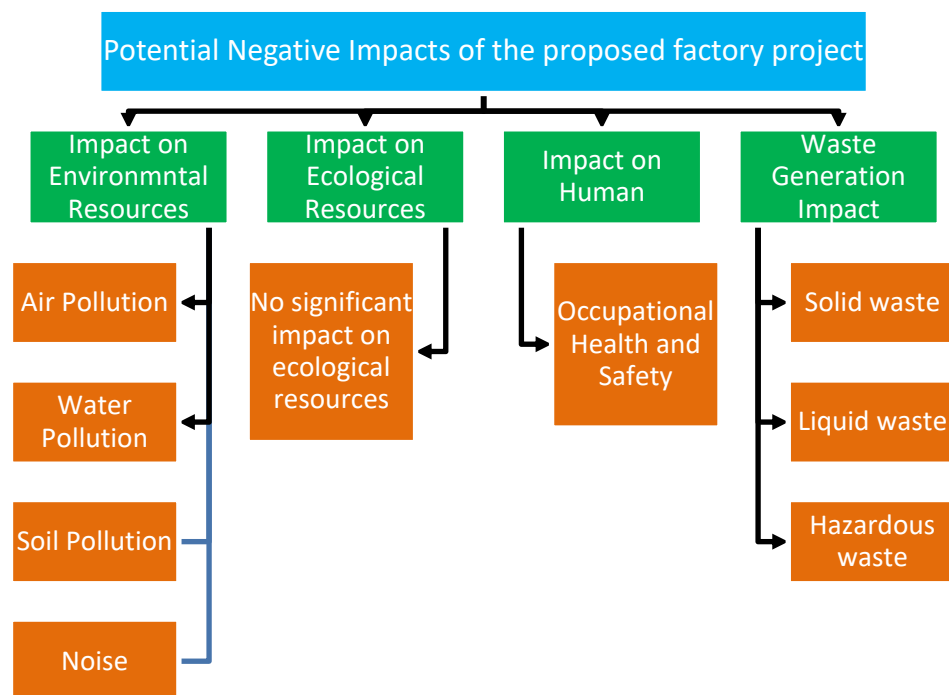


Figure 5-1 Potential negative impact affect from proposed factory project

5.2. METHODOLOGY FOR THE ASSESSMENTS

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

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

Table 5-1 Impact assessment parameters and its scale

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

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

$$\text{Significant Point (SP)} = (\text{Magnitude} + \text{Duration} + \text{Extent}) * \text{Probability}$$

Impact Significance: Based on calculated significant point, impact significance is able to categorize as follows:

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

5.3. POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION AND DECOMMISSIONING PHASE

5.3.1. Impact on Air Quality

The project factory is already constructed during environmental assessment study and site visit. During construction phase, dust emission was addressed as potential environmental impact and is expected to be non-significant because the construction phase is a short-term affect. So, we are not assessed potential environmental impact during construction phase.

During the operation phase, there is no emission of smoke from the process of production. Particulate matters are generated during cutting and pressing the raw materials. But that particles amount is low. Dust particles, CO₂ and SO₂ would be emitted from the activities of loading, unloading and transportation of the raw materials and final product. Various activities as cooking from kitchen, using air conditioners in office building, storage of raw materials, vehicles movements, operating diesel generators combustion would also be a factor slightly affecting to air quality.

Though main electricity source for the factory is the national grid line, sound-proof diesel generators will be set-up in case of electricity shortages. So, 300 kVA and 500 kVA of standby generators will be used for both operation and administration appliances. The proposed project will use annually 13816.92 liters of diesel for vehicles such as transportation vehicle and emergency use of a generator. The following table shows the amount of CO₂ emission coming from the combustion of fuels.

Burning diesel or other fuels creates exhaust gasses. Diesel generators produce carbon dioxide (CO₂), nitrogen oxide (NO_x), and particulate matter. These generators release this into the atmosphere and substantially reduce air quality in the nearby regions. Every liter of fuel has 0.73 kg of pure carbon, 2.6 kg of carbon dioxide released per liter of diesel fuel.

Table 5-2 Category of GHGs Assessment

Category	Range
Negligible	no GHG assessment necessary
Low	< 20 kt/y CO ₂ -equivalent per year
Medium-Low	20 – 100 kt CO ₂ - equivalent per year
Medium-High	100 kt – 1 Mt CO ₂ - equivalent per year
High	>1 Mt CO ₂ -e equivalent per year

Source: EBRD GHG Assessment Methodology, 2010

Table 5-3 CO₂ Emission by the Uses of Fuel

No.	Type	Amount(gallon/year)	Equivalent CO ₂ emission (Kilotons)	Status
1	Diesel for generator	1660	0.2947	Negligible

Furthermore, likewise the construction phase, negative impact on ambient air quality such as emissions of dust particles emission from the movement of vehicles used for carrying decommissioned materials and gaseous emission from these vehicles and machines can be expected during the decommissioning phase of the proposed project after its lifespan, 34 years.

5.3.2. Impact on Water Quality

During the construction period, water consumption is for implementation of the construction works and domestic water usage by construction workers. Surface water and ground water could be contaminated from the several activities of construction works such as mixing of the concrete, wetting of dry surfaces, washing of the equipment, etc. Moreover, oil spill from the vehicles and machinery can pollute water quality and can enter into the ground water and run into near river during the rainy season. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, impact on water quality is not assessed for this project.

During operation phase of garment manufacturing factory, there is no water use for processing purpose. Tube well is the main source of raw water for factory waster use. The raw water is provided for the whole factory use of general office facilities such as canteen, toilets and kitchen. Moreover, sewage disposed from the employees, staffs, oils spill and grease leakage from transporting vehicles and machinery equipment used in operating the production of garment can seriously pollute the quality of underground water source. But the factory plans to use separate waste water channels, septic type toilet system and sewage treatment plants in accordance with YCDC guidelines to avoid potential contaminations and hazards by waste water and sewages. So, it can cause low impact to the water quality.

During the decommissioning phase, oil spill from the demolished vehicles and machinery can penetrate into the ground water quality. Water can also be contaminated by activities related with decommissioning works and waste disposed by workers.

5.3.3. Impact on Soil Quality

During the construction phase, the excavation works from the construction activities must be the major impact on soil. The soil is compacted by the vehicles and the solid waste disposal improperly by the workers can affect the soil quality. Oil spillage from the vehicles could be also polluted to the soil. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, impact on water quality is not assessed for this project.

During the operational phase, there is no significant impact on soil quality due to garment manufacturing activities because concrete road facilities have been implemented at the whole project site area. However, there may be effect on soil if wastes from the operation period are disposed improperly.

During the decommissioning phase, transportation of decommissioning materials and transferred of heavy machinery may happen oil leakage and lubricants, and thus it can lead to impact on soil. Moreover, hazardous releases of materials or oil utilized in the infrastructure can contaminate the existing soil during the decommissioning phase.

5.3.4. Impact of Noise

During the construction phase, significant impact on noise and vibration to surrounding environment must be generated from the movements of vehicles, operating the machinery, excavation activities and transportation of equipment and construction materials by heavy trucks. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, the proposed project is located in industrial zone and already finished the construction, the potential

impact on noise and vibration is not assessed and short-term affect must be caused the construction period is temporary.

During the operation phase, noise impact may be a significant impact for garment production sectors. The significant sources of noise impact activities are the operation of various machinery and equipment listed in for sewing line, cutting line and the emergency used of generator, vehicles and automobile movements (short-term noise) will be noise impacts sources. According to the noise results of 8 hours continuously measurement, at the source of operation area inside the factory and within the factory area are slightly exceeding the noise level of 70 dB of NEQ (emission) guideline. Therefore, no obvious influence can be caused expected to environment.

During the decommissioning phase, the heavy vehicles, machineries and equipment used for decommissioning activities can affect the noise level and vibration of the area.

5.4. IMPACT ON ECOLOGICAL RESOURCES

The proposed project is located in the industrial zone. Therefore, there is no wildlife, forests, protected area, coastal resource or mangrove area and rare and endangered species are found around the project area. The nearest water body is Hlaing River.

5.5. IMPACT ON HUMAN

5.5.1. Socio-economic

The proposed project is the long-term investment in the industrial sector. Most of the impacts of the proposed project on socio-economic environment may be positive. Implementation of proposed project may create temporary employment during construction and decommissioning phases and permanent jobs in the operation phase. Subsequently, socio-economic standards of local people will be increased and eventually it may lead to the economic growth at local and regional level.

5.5.2. Occupational Health and Safety

During the construction phase, significant accidents and injuries like electric shocks, falling from heights, chemical exposure, crushing injury, fire hazards can be occurred due to the construction activities including metal grinding and cutting, concrete work and welding the metals. Moreover, accidents and injuries to workers and local communities could be caused from heavy vehicles movement for the transport of construction materials and equipment. Small injuries due to slips, headache and sickness must be caused of the noise, air pollution and odor could also be affected to the workers and local people. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, impact on water quality is not assessed for this project.

During the operation phase, using the machinery for production process can get injuries. Noise from the generating of the machine and generator may also affect the health of people working in the project area. Fire and explosion hazards are mainly cause from the storage of raw materials and poor management of waste disposal. The usage of fuel must carefully handle because spillage and leakage of oil and grease can cause ignition of fire. Domestic wastewater or grey water produced from canteen, kitchen and toilets will cause enormous breeding of mosquitos, which can lead to diseases like malaria and dengue fever, if not carefully managed.

During the decommissioning phase, activities related with decommissioning process can cause injuries and can affect the health of decommissioning workers.

5.5.3. Waste Disposal

5.5.3.1. Solid Waste

During the construction and decommissioning phase, various kinds of solid wastes will be generated. These wastes will be collected and clean every day to avoid any undesirable working condition and environmental impacts. Based on their types (glass, metal, plastic, wood, cement residues, oil spills and paper based), these solid wastes will be collected separately in rubbish bins and regular and proper disposal will be done in accordance with YCDC guidelines.

In the operation phase, major solid wastes of the proposed garment factory may be generated from production lines, cutting and packaging. Factory shall use textile, thread and carton box as raw materials. The residual pieces of the fabric scraps from the production lines and cutting line used carton box, plastic sheet from the packaging is the main source of solid waste. In addition to factory solid waste, canteen, kitchen and dormitory will produce solid wastes mainly personal remnants, household wastes and food residues.

5.5.3.2. Liquid Waste

There may be expected no significant liquid waste from the construction and decommissioning phase. The main source of the liquid waste of these two phases may be from the sanitary wastewater.

During the operation phases, sanitary wastewater from the usage of toilet facilities, kitchen and canteens will be discharged as liquid waste. All of the liquid waste will be collected in septic tanks which are attached with proper sewage treatment tanks (as mentioned in factory site plan) and regular monitoring should be done in cooperation with YCDC and follow the YCDC guideline for proper disposal.

5.6. PROJECT ACTIVITIES AND ITS SIGNIFICANT IMPACTS

The project activities, their impacts and significance of impact are provided in following Table.

Table 5-4 Evaluation and Perdition of Significant Impacts and mitigation measure for Operation Phase

Categories	Source of Impact	Significant Potential Impacts of					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Impact on Environmental Resource									
Air	<ul style="list-style-type: none"> Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission from emergency diesel generator and vehicle movement 	3	4	2	4	36	Moderate	<ul style="list-style-type: none"> Air pollution in atmosphere. Inhaling them can increase the chance you'll have health problems People with heart or lung disease, older adults and children are at greater risk from air pollution. 	<ul style="list-style-type: none"> To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. Ensuring vehicles, compressor and generator are well maintained. Smoke emission should be fitted with the bag filter.
Soil	<ul style="list-style-type: none"> Engine oil leaks, spills at diesel storage and during fuel refueling. 	1	4	1	1	6	Insignificant	<ul style="list-style-type: none"> The factory compound area was paved with concrete and hence, contamination due to the oil spillage at this area is insignificant. 	<ul style="list-style-type: none"> No Mitigation Measure

Categories	Source of Impact	Significant Potential Impacts of					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Noise and Vibration	<ul style="list-style-type: none"> Generating noise from the production machinery 	2	4	2	2	16	Low	<ul style="list-style-type: none"> The factory not operate heavy machinery the major noise source of CMP basic operation activities such as cutting, stitching/finishing and packaging by respective machines. There is insignificant impact on surrounding environment. 	<ul style="list-style-type: none"> No Mitigation Measure
Impact on Ecological Resources									
Flora and fauna on terrestrial and aquatic life	Operation of the garment factory	1	4	1	1	6	Insignificant	<ul style="list-style-type: none"> Not Significant Impact on Ecological Resources 	<ul style="list-style-type: none"> No Mitigation Measure
Impact on Human									
Fire	<ul style="list-style-type: none"> Poor electrical installations Waste disposed area raw materials and chemical storage 	3	5	2	4	40	Moderate	<ul style="list-style-type: none"> Serious damage to property and even injury and death 	<ul style="list-style-type: none"> 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.

Categories	Source of Impact	Significant Potential Impacts of					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									<ul style="list-style-type: none"> The emergency fire alarms are installed at the factory for alerting the workers in case of fire. The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
Occupational Safety	<ul style="list-style-type: none"> Accidental cases cause by operating machines. Unloading, mixing, cutting, pressing and packaging activities. Accidental cases of thermic fluid heater 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> Accident in workplace (physical injuries or even death) can occur during operation. 	<ul style="list-style-type: none"> First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.

Categories	Source of Impact	Significant Potential Impacts of					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Health	<ul style="list-style-type: none"> Influx of people Noise from the generating of the emergency generators 	2	4	1	2	14	Very Low	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Manage the drainage systems of the factory to prevent health risk of the workers. The maximum allowable noise level for workers is 90dB(A) for 8hours exposure a day. Thus, adequate protective noise impact measures in the form of ear muffs/ear plugs to the workers working in high noise areas.
Waste Generation Impact									
Solid Waste	<ul style="list-style-type: none"> Residual pieces of fabric scraps from the production lines Waste from packaging materials Waste from kitchen, dormitory and office. 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> Surrounding environmental pollution and soil contamination 	<ul style="list-style-type: none"> 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.

Categories	Source of Impact	Significant Potential Impacts of					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Liquid Waste	<ul style="list-style-type: none"> Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory. 	2	4	2	2	16	Low	<ul style="list-style-type: none"> Contamination of soil, surface water, ground water 	<ul style="list-style-type: none"> Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Waste	<ul style="list-style-type: none"> Used oil and lubricant discharged from the maintenance of vehicles and machines. 	2	4	1	2	14	Very Low	<ul style="list-style-type: none"> Reduce the risk of contamination from fuels, oils and hazardous wastes Response effectively to incident and accident 	<ul style="list-style-type: none"> Proper inspection and maintenance in storage of hazardous waste. Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. The empty chemical containers will hand over to suppliers for recycle or appropriate disposal The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (eg., DOWA and YCDC)

5.7. MITIGATION MEASURES OF IMPACT ON ENVIRONMENTAL RESOURCES

5.7.1. Recommended Air Impact Mitigation Measures

During the operation phases, ventilation system of the factory is enough for the workers cause the proponent has installed Moist Fan around the factory building. To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. Since the factory compound area is paved with concrete, dust emission from the movements of vehicles and cars is not significant. The project proponent must install good exhaust system at the kitchen to reduce adverse impacts of indoor air quality. The factory uses chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. Monitoring and check installed cyclones and ventilation system. The factory has planted trees in its premises to reduce carbon emission and thus minimize air pollution. Ensuring vehicles, compressor and generator are well maintained.

During the decommissioning phases, the impact on air quality can be controllable and reduced to minimum level and minimized dust emissions from material handling sources. Sprinkling water on the top soil can reduce dust emission from the demolishing activities. In the proposed project area, vehicle movements should be limit and maintain and check the vehicles and machineries regularly. Burning the demolished materials and residual wastes must not be allowed.

5.7.2. Mitigation Measure of Impact on Water

During the operation phase, water discharge from the factory site will be treated by silts track tank before discharging. Water effluent levels should be within acceptable limit of the National Environmental Quality (Emissions) Guidelines values. 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. Besides, the factory plans to use separate wastewater channels, septic type toilet system. Wastewater 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.

During the decommissioning phases, appropriate sanitary facilities should be provided for demolishing workers. An accidental spill of fuel and oil should be avoided. Wastes generated from the demolishing activities should not be disposed directly into the drainage channels.

5.7.3. Mitigation Measures for Water Consumption and Contamination

5.7.3.1. Water Consumption

The appropriate water conservation plan should be implemented with commensurate with the magnitude and cost of water use. These programs should promote the continuous reduction in water consumption and achieve savings in the water pumping, treatment and disposal costs.

- Regularly maintain plumbing, and identify and repair leaks
- Shut off water to unused areas
- Install self-closing taps, automatic shut-off valves, spray nozzles, pressures reducing valves and water conserving fixtures (e.g low flow shower heads, faucets, toilets, urinals and spring loader)
- Operate dishwashers and laundries on full loads, and only when needed
- Install water-saving equipment in lavatories, such as low flow toilet
- Recycling water used from wastewater treatment system

Currently toilet facilities have hygienic toilets already provided and categorized by gender, marked distinctly for men and women by signs and symbols. In addition, toilet areas will also be provided with water sinks, necessary toiletries, and hand washing soaps, hand drying facilities, and waste bins.

Categories	Area of location	Sex	Quantities
Workers and staff	Production area and office	Male	15
		Female	37

- ❖ Ensure that liquid waste from the proposed site is directed to the appropriate drains
- ❖ Maintain the equipment, pipelines in good working conditions and drainage system to avoid clogging

5.7.4. Mitigation Measure of Impact on Soil Contaminate

During the operation phase, the compound area of the factory area will be paved with concrete and hence, contamination due to the oil spillage at this area is insignificant. But refilling fuel must be done with great care for preventing spillage.

During the decommissioning phase, impact on soil can be mitigated by using modernized machineries, these machines would be maintained regularly and isolated maintenance area would be identified. Any accidental spills of fuel, oil or other hazardous waste must be avoided. Construction wastes and demolishing debris should be disposed properly.

Mitigation Measure of Impact on Noise

During the operation phase, the regular maintenance plans for vehicles, machines generators should be provided to mitigate impact on noise. Using modernized low noise machines should be used if possible. Noise impact to employees shall be minimized by providing earmuffs and ear plugs to those working near the noisy machines.

During the decommissioning phases, temporary noise pollution can be controlled by planning regular maintenance for decommissioning vehicles and machines. Moreover, construction and decommissioning activities should not be worked during nighttime.

5.8. MITIGATION MEASURES OF IMPACT ON HUMAN

5.8.1. Mitigation Measures on Fire Hazard

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 45900 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.

5.8.2. Mitigation Measure for Occupational Health and Safety

The Occupational Safety and Health Administration (OSHA) have recommended permissible noise exposure limit for industrial workers, which is based on 90 dB (A) for 8 hours exposure a day with 5dB trading rates. The limits are mentioned in Table 5-5. According to OSHA, the maximum allowable noise level for workers is 90 dB (A) for 8 hours 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.

Table 5-5 Permissible exposure of noise limits

Total Time of Exposure Per Day in Hours	Noise Level dB(A)
8	90
6	92
4	95
3	97
5	100
1	105
½	110
¼	115

5.8.3. Mitigation Measure of Waste Generation

During the operation phase, the project proponent 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 houses: Non-hazardous Waste Production related house, Hazardous Waste Production related house, Non- Hazardous Waste Non-Production related house and Hazardous Waste Non-Production related house and final wastes will be disposed by using YCDC's service.

During the decommissioning phase, some of demolished solid wastes must be recycled and the other solid wastes should be stored in dedicated waste storage area in the project site and transferred to YCDC for final disposal.

5.8.4. Mitigation Measures for Waste Disposal

At WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED, manufacturing of Sports Shoes factory, waste categorization has been developed into at least four types of waste that includes

iron, compost waste, lubricant waste, recycle waste such as poly propylene Sports Shoes (PP) and cardboards etc.

All of production waste such as webbing polyester pieces, carton, cardboard, cotton, plastic string and other non-hazardous waste will be collected by designated garbage bins and then sent to the temporary storage areas of solid waste in the project site area, which include 4 compartments for different kinds of waste categories. In addition, pest control program has also implemented at the entrance of rodents and insects. William (Myanmar) Industrial also has an agreement services with Mingaladon Township Development Committee for waste disposal facilities to collect the all production waste, office waste and domestic waste. According to the waste management practice, WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED, Sports Shoes factory has provided the dedicated dustbins for paper waste, plastic waste, production waste and food waste for the proper disposal of waste. Appropriate recycling methods are in practice to dispose of the wastes in the environmentally friendly manner.



Figure 5-2 Solid waste management at WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED

5.8.5. Mitigation Measurement of Disasters During Construction and Operation

Disasters like earthquakes, floods, drought, landslides and cyclones for Management Plan should include Emergency Preparedness Plan, Emergency Response Team, Emergency Communication, Emergency Responsibilities, Emergency Facilities, and Emergency Actions.

The objective of the Industrial Disaster Management Plan is to make use of the combined resources of the plant and the outside services to achieve the following:

- Effect the rescue and medical treatment of casualties;
- Safeguard other people;
- Minimize damage to property and the environment;
- Initially contain and ultimately bring the incident under control;
- Identify any dead;
- Provide for the needs of relatives;
- Provide authoritative information to the news media;
- Secure the safe rehabilitation of affected area;

- Preserve relevant records and equipment for the subsequent inquiry into the cause and circumstances of the emergency.

It is attempted to plan and construct the buildings following all safety norms. However, it is not always possible to totally eliminate such eventualities and random failures of equipment or human errors. An essential part of major hazard control has therefore, to be concerned with mitigating the effects of such emergency and restoration of normalcy at the earliest. Detailed Table showing activities during construction and operation phases along with mitigation measures are given in Table.

Table 5-6 Activities during Construction and Operation along with Mitigation Measures

Hazards Associated with Activities	Control / Mitigation Measures
<p>Manual Handling Strains and sprains - incorrect lifting - too heavy loads -twisting - bending - repetitive movement - body vibration.</p>	<p>Exercise/ warm up-get help when needed control loads-rest breaks/ no exhaustion-no rapid movement/ twisting/bending/repetitive movement – good housekeeping.</p>
<p>Falls - Slips - Trips Falls on same level - falls to surfaces below - poor housekeeping- slippery surfaces uneven surfaces -poor access to work areas climbing on and off plant-unloading materials into excavations wind - falling objects.</p>	<p>Housekeeping - tidy workplace - guardrails, handholds, harnesses, hole cover, hoarding, no slippery floors/trip hazards - clear/ safe access to work areas-egress from work areas - dust/water controlled - PPE.</p>
<p>Fire Flammable liquids/Gases like LPG, Diesel Storage area and combustible building materials - poor housekeeping - grinding sparks – open flames, absence of Fire hydrant network.</p>	<p>Combustible/ flammable materials properly stored /used -good housekeeping-fire extinguishers made available & Fire hydrant Network with reserve Fire water (As per NFPA Code) - Emergency Plan in case of Fire or collapse of structure.</p>
<p>Absence of Personal Protective Equipment Lack of adequate footwear- head protection hearing/ eye protection - respiratory protection gloves-goggles.</p>	<p>Head / face- footwear- hearing / eye-skin respiratory protection provided - training maintenance.</p>
<p>Defective or wrong Hand Tools Wrong tool - defective tool - struck by flying debris- caught in or on -missing guards - carbon monoxide - strains and sprains - dust.</p>	<p>Right tool for the job - used properly – good condition/ maintenance guards- isolation eye/ face protection - flying debris controlled.</p>
<p>Electricity Electrocution – overhead / underground services - any leads damaged or poorly insulated temporary repairs -no testing and tagging circuits overloaded-non-use of protective devices.</p>	<p>Leads good condition and earthed – no temporary repairs - no exposed wires-good insulation-no overloading - use of protective devices - testing and tagging -no overhead/ underground services</p>
<p>Scaffolding Poor foundation-lack of ladder access insufficient planking-lack of guardrails and toe boards-insufficient ties or other means- all scaffolds incorrectly braced or stabilized to prevent overturning.</p>	<p>All scaffolds correctly braced and stabilized - 3:1 height to base ratio - firm foundation, plumb and level - ladder access provided and used - proper platform (3 planks/ 675 mm) - planks secured- guardrails and toe boards – 900 mm to 1100mm high, within 200 mm of working face, mid - rail.</p>

Hazards Associated with Activities	Control / Mitigation Measures
<p>Ladders Carrying loads - not secured against dislodgement - defective ladders- not sufficient length- wrong positions - incorrectly placed (angles, in access ways, vehicle movements.</p>	<p>Secured against movement or footed - ladders in good condition – regularly inspected - extend one (1 m) meter above platform - 4:1 angle - out of access ways, vehicle movements - climbing - no carrying loads - 3 points of contact - no higher than 3rd step down - use for access only, not working platforms.</p>
<p>Excavations Trench collapse - material falling in undetected underground services-falls-hazardous atmosphere struck by traffic and mobile plant.</p>	<p>Soil stability known-no water accumulation existing services known - material 600 mm from edge - clear of suspended loads hardhats/ PPE- ladders - public protection - atmospheric testing- traffic controls - Emergency Plan.</p>
<p>Gas Cutting and Welding Fire-welding flash, burns, fumes, electrocution in wet conditions- flashback in oxygen set, leaking cylinders, acetylene cylinders lying down-poorly maintained leads.</p>	<p>Welding flash and burns controlled with PPE and shields -fumes controlled with ventilation and PPE (in good condition and properly positioned), Gas cylinders be kept upright & secured position (properly tied) - combustible materials to be kept at secured place to avoid fire & Fire Extinguishers to be kept in fire prone area with training to people for its use.</p>
<p>Noise Unknown noise levels - known noise levels over 85 decibels</p>	<p>Levels below 85 decibels – proper protection.</p>
<p>Falling Material Fall during carrying/ Lifting materials dislodged tools and materials from overhead work areas.</p>	<p>Materials to be secured-kept away from edge- toe boards -Use of hard hats.</p>
<p>Carnage& Lifts Display of carrying capacity i. e load (No. of person) incorrectly slung, defective lifting equipment, unsecured loads, craning in close proximity to building people and plant-falls falling materials.</p>	<p>Periodic testing by competent authority correctly slung/ secured loads, lifting equipment good condition-use of proper hand signals - falls while unloading controlled.</p>
<p>Visitors Presence at site Falls -struck by - dropped materials-road accidents -insufficient hoarding or fencing pedestrian access past site-mechanical plant movement on and off site</p>	<p>Sufficient hoarding - fencing and barricades safe pedestrian access past site traffic management for loading and delivery construction separated from occupied areas of projects</p>

6. ENVIRONMENTAL MANAGEMENT ACTION

The EMP for William (Myanmar) Industrial Company Limited has been prepared to address potential issues based upon discussion with factory management, workers, local community view, stakeholder consultation and the site visit. The EMP is additional to and complements the factory's safety management system. The following environmental impact issues which require environmental management plans based upon the potential impacts activities of William (Myanmar) Industrial Company Limited are as follows:

6.1. AIR POLLUTION/ DUST MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To minimize the adverse impact to air quality caused by stack gas emission from generator and also dust management generated from vehicular movement. ➤ To comply with relevant government rules 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ National Environmental Quality (Emission) Guidelines (2015) ➤ Motor Vehicles Act, (2015) 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation 	
Management Action	<ul style="list-style-type: none"> ➤ Must be plant around the proposed project to reduce carbon emission ➤ Should be prohibited burning of waste material at the proposed project site ➤ Must be control air pollution, the vehicles, generators and machineries have to check and maintain regularly. ➤ The factory should use chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. ➤ Must be ensuring vehicles, compressor and generator are well maintained. 	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	Indoor and Outdoor of proposed project
	Parameters	PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂ , O ₃ , CO
Estimated cost	1,000,000 Kyats per year	
Responsibility	Management of the factory; <ul style="list-style-type: none"> • Head of maintenance -Total implementation of above of air pollution management plan • Production manager -Air quality in the production area is good enough • Manager -To hire organization/independent third-party testing air quality • EHS officer-Monitor the hygiene of ambient air quality in surrounding of the factory 	

6.2. WATER CONSUMPTION MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> • The water consumption management is aimed at minimizing ground water use
Performance Indicator:	<ul style="list-style-type: none"> • Prohibitions on accessing and using underground water without a license • Water consumption saving of general water use from groundwater

Relevant government law and rule	<ul style="list-style-type: none"> The Underground Water Act (1930)
Management Plan	<ul style="list-style-type: none"> Install water meter for internal control of water consumption All staff trains and makes aware conservation practices and proper methods of water use must be place in toilets and other areas of water consumption The contamination of water is avoided by suitable management of oil and fuel used in machineries and vehicles Trees plantation surrounding the factory
Monitoring & Reporting	<ul style="list-style-type: none"> Daily visual inspections
Time Frame	<ul style="list-style-type: none"> Once in a year throughout the factory life
Estimated cost	<ul style="list-style-type: none"> Approximately 5 million kyats (annually)
Responsibility	<p>Manager</p> <ul style="list-style-type: none"> Arrange audit on water usage controls environmental officer

6.3. WASTEWATER MANAGEMENT PLAN

Objectives:	➤ To implementation plan for the management of liquid waste from collection, through treatment and resource recovery, to residual disposal	
Relevant government law and rule	➤ Yangon City Development Committee Law (2018), National Environmental Quality (Emission) Guidelines (2015), Underground Water Act	
Time Frame	➤ Entire life spans of the factory operation	
Management Plan	➤ Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.	
Monitoring & Reporting	Frequency	Biannually
	Parameters	pH, Turbidity, Conductivity, Iron, Sulphate, TSS, TDS, Manganese, COD, BOD, Cyanide, Copper, Zinc, Carbonate
	Proper maintenance of drainage and sewerage system will be conducted periodically	
Estimated cost	800,000 Kyats per year	
Responsibility	Manager -To hire organization/independent third-party testing wastewater quality EHS officer-Monitor the condition of factory's drainage and sewerage system	

6.4. NOISE MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To avoid nuisance noise to nearby residents generated from generator and other machineries. ➤ To comply with noise standard of National Environmental Quality (Emission) Guideline 	
Relevant government law and rule	➤ National Environmental Quality (Emission) Guidelines (2015)	
Time Frame	➤ Throughout the project life	
Management Plan	<ul style="list-style-type: none"> ➤ Building noise insulated generator room and ensure satisfactory maintenance of relevant equipment ➤ Impose speed limit to track and vehicles at the transportation route. ➤ Provide sufficient personal protective equipment (PPE) at the work place ➤ All the related personnel will be provided proper training about the relevant issues and ensure PPE wear during working in noisy area. 	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	Two points in operation area (especially cutting and sewing)
	Parameters	Sound Decibel
Estimated cost	100,000 Kyats per year	
Responsibility	HSE Manager or Environmental Management Team of William (Myanmar) Industrial Company Limited	

6.5. SOLID WASTE MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To minimize waste generation by developing strategies for the management and disposal of all waste in a manner that is sustainable and sensitive to the environment ➤ To comply government waste management policy
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), National Waste Management Strategy and Action Plan (Draft 2018)
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation
Management Plan	<ul style="list-style-type: none"> ➤ Must be 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.
Monitoring & Reporting	<ul style="list-style-type: none"> ➤ Daily wastes have to be collected and hand over to YCDC waste collector ➤ The inventory record of waste disposal will be maintained as proof for proper management as designed
Estimated cost	50,000 Kyats per month
Responsibility	Manager (HR) <ul style="list-style-type: none"> ➤ Responsible for overall site cleanliness and waste management ➤ Regular waste collection to minimize excessive waste storage

6.6. FIRE MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To ensure that fire control practices are implemented on site to minimise the risk of fire from site operations and bush fires
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Myanmar Fire Brigade Law 2015
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of proposed project operation
Management Plan	<ul style="list-style-type: none"> ➤ Must be provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. ➤ Must be indicated the emergency exit and assembly point in public area. ➤ 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.
Monitoring & Reporting	To check monthly Visual inspection, Firefighting equipment (fire extinguish, firefighting hose, portable fire pumps, fire hose reels, fire monitor and firefighting nozzles)

Estimated cost	1,200,000 Kyats per year
Responsibility	HSE Manager, Operation Manager or Environmental Management Team of William (Myanmar) Industrial Company Limited

6.7. OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT PLAN

Objective	<ul style="list-style-type: none"> ➤ To provide a broad framework for improving standards of workplace health and safety to reduce work-related injury and illness.
Relevant Government Law and Rule	<ul style="list-style-type: none"> • Public Health Law (1972), Prevention and Control of Communicable Diseases Law 1995 (Amendment 2011), Occupational Safety and Health Law (2019)
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of proposed project
Management Action	<ul style="list-style-type: none"> ➤ First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. ➤ According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. ➤ Personal Protective Equipment (PPE) 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. ➤ Manage the drainage systems of the factory to prevent health risk of the workers. ➤ The maximum allowable noise level for workers is 90dB(A) for 8hours exposure a day. Thus, adequate protective noise impact measures in the form of ear muffs/ear plugs to the workers working in high noise areas.
Monitoring and Reporting	<ul style="list-style-type: none"> ➤ Weekly check fire extinguishers and water hydrant in position ➤ Daily inspect that all fire exist are open ➤ Servicing fire extinguisher and records accidents
Estimated Cost	500,000 Kyats per year
Responsible Person	HSE Manager, Operation Manager or Environmental Management Team of William (Myanmar) Industrial Company Limited

6.8. ENERGY MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To improve energy efficiency, reduce cost, optimize capital investment, reduce environmental and greenhouse gas emissions, and conserve natural resources
Relevant government law and rule	<ul style="list-style-type: none"> ➤ National Energy Management Committee (Myanmar Energy Master Plan 2015)
Time Frame	Once in a year throughout the factory life

Management Plan	<ul style="list-style-type: none"> ➤ Installation of timers and thermostats to control heating and cooling ➤ Energy saving light installed in different area of the factory for saving energy ➤ Used of energy saving devices must be installed ➤ Ensure that good housekeeping measures such as turning off equipment and lights when not in use
Monitoring & Reporting	Conduct annual energy efficiency of adult to find out the scope for energy saving
Estimated cost	Approximately 100,000 Kyats per year
Responsibility	<p>Manager</p> <ul style="list-style-type: none"> ➤ To arrange energy audit technical personnel ➤ To monitor and record electricity consumption, other related energy issues and take necessary actions if any problem arises

6.9. EMERGENCY RESPONSE AND MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To reduce the harmful effects of all hazards, including disasters. The World Health Organization defines an emergency as the state in which normal procedures are interrupted, and immediate measures (management) need to be taken to prevent it from becoming a disaster, which is even harder to recover from.
Relevant government law and rule	<ul style="list-style-type: none"> ➤ The Employment and Skill Development Law (August 2013), ILO guide to Myanmar Labour Law (2017)
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation
Management Plan	<ul style="list-style-type: none"> ➤ The factory management has taken proper measures to handle any emergency situation like fire, earthquake, flood and storm ➤ Provision and inspection of firefighting equipment and fire hydrant system in all the sections ➤ A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers ➤ Periodic inspection of safety relief valve provided with pressure vessels and equipment, preventive maintenance; aware the workers about electric shock by necessary training. ➤ Regular fire drill operation is conducted ➤ Workers are informed about what to do in earthquake like stay in a safe place such as under table of desk, not to try move outside during earthquake, workers who will be outside during earthquake shall remain stay out of the building, trees, lump post, etc. Other relevant safety instruction of emergency situation it informed to workers by training ➤ Workers are aware of dangers from physical hazards such as obstacles covered by floodwater (storm debris, drainage opening, ground erosion) and from displaced reptiles (Snake) or other animals. ➤ A medical team has been prepared for primary treatment (First Aid)

	<ul style="list-style-type: none"> ➤ Prepare an emergency contact directory consisting contact numbers of nearest fire service, local police station, hospitals, etc. and display it in a place that everybody can see it easy. ➤ Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management ➤ Ensure proper training of the employees about the disaster management, fire safety as well as occupational health and safety
Monitoring & Reporting	Weekly check fire extinguishers and water hydrant in position Daily inspect that all fire exist are open Servicing fire extinguisher and records accidents,
Estimated cost	Approximately 1,500,000 Kyats per year
Responsibility	Manager and EHS officer <ul style="list-style-type: none"> ➤ Arrange firefighting training after every 3 months ➤ Responsible for fire control and response ➤ Monitoring daily danger warning and bans

6.10. 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. **Error! Reference source not found.** is provided the environmental monitoring schedule for William (Myanmar) Industrial factory. 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 6-1 Environmental monitoring schedule for William (Myanmar) Industrial Company Limited

Issues	Parameter	Frequency	Area to be monitored	Monitoring cost	Responsible Organization
Operation Phase					
Common	Monitoring of mitigation measures	Yearly (3 years after operation)	The project	2500,000 Kyats	Environmental Management Team's William (Myanmar) Industrial Company Limited
Air quality	PM 2.5, PM 10, SO ₂ , NO ₂ , O ₃ , CO	Biannually monitoring and reporting to ECD (first 3 years after operation)	Outdoor and Indoor of proposed project	800,000 Kyats	Environmental Management Team's William (Myanmar) Industrial Company Limited
Waste Generation	Solid waste, Liquid waste	weekly	Recycle house and waste house	50,000 Kyats	Environmental Management

Issues	Parameter	Frequency	Area to be monitored	Monitoring cost	Responsible Organization
	and Hazardous waste		and at the factory office		Team's William (Myanmar) Industrial Company Limited
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	At the factory	500000 Kyats	Environmental Management Team's William (Myanmar) Industrial Company Limited
Light intensity	Illuminance	Monthly	At the production line (especially cutting and QC)	20,000 Kyats	Environmental Management Team's William (Myanmar) Industrial Company Limited
Decommissioning Phase					
Air quality	PM 2.5, PM 10, SO2, NO2, O3, CO	One time during this phase	One point in the production area	1000000 Kyats	Land Owner
Noise	Noise level in decibel (dBA)	One time during this phase	One points in demolishing area	1000000 Kyats	Land Owner
Rehabilitation	Recovering and Revegetation		All decommissioning area		Land Owner

6.11. CAPACITY BUILDING AND TRAINING PLAN

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

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

6.11.1. 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.

6.11.2. 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

6.11.3. 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

6.11.4. 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 spread 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

6.11.5. Fire Protection Equipment

1. Explosion Suppression Systems: Explosion suppression systems should be used in unusually hazardous areas such as elevator legs, boots and head, or in areas such as bins, distributors and tanks.
2. Portable Fire Extinguishers: All buildings within a facility must have fully charged and operable portable fire extinguishers. If employees are expected to use portable extinguishers or other firefighting equipment against incipient fires, they must be trained to use the equipment. Training must include the following:
 - Correct type of extinguisher to use on different classes of fire
 - Proper techniques for use of the equipment to extinguish a fire
3. Standpipes and Hoses: All areas within a facility that are above 75 feet from ground level and in which combustible materials other than grain are stored should have wet or dry standpipes and hoses installed.
4. Automatic Sprinkler Systems: Automatic sprinkler systems are recommended in areas containing combustible materials.
5. Fire Hydrants: All grain and feed mill facilities should have adequate public or private fire hydrants on site. Each fire hydrant should have an adequate water supply.

6.11.6. Fire Safety and Evacuation Plan

Fire Evacuation plans should include the following information

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

Fire Safety Plans should include the following information:

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

- Fire alarm annunciators and controls

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

Table 6-2 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.

6.11.7. Site Fire Control

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

6.11.8. 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 of chemical materials

6.11.9. Health and Safety Training Plan for Worker

Health and Safety Training plan currently used and provided in William (Myanmar) Industrial Company Limited to all employees and workers by trainings internally and externally. Specific trainings are recommended and conducted according to the health and safety guidelines to enhance worker's health and to prevent all potential risks and hazards might occur in the factory. All required trainings related to health and the respective departments propose safety or operational parts, top management makes decision and HR organizes and conducts the trainings.

Table 6-3 Training Plan Used in William (Myanmar) Industrial Company Limited

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

6.12. 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 through Grievance Committee, which includes the responsible persons of William (Myanmar) Industrial Company Limited representative from Hlaing Thar Yar Industrial Zone and representative from General Administration Department

(Hlaing Thar Yar 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 show steps of Grievance Redress Mechanism of Proposed Factory Project.

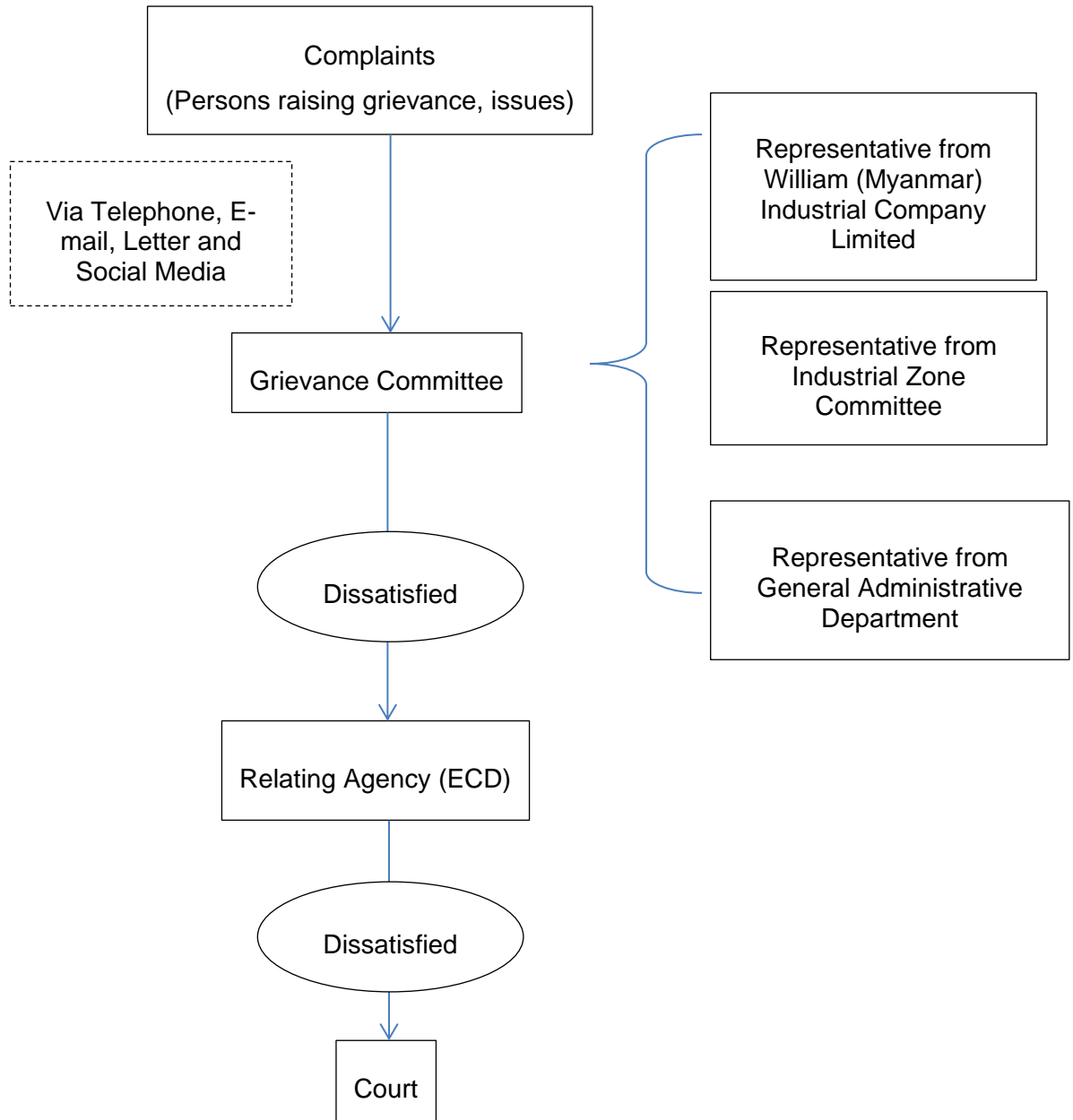


Figure 6-1 Grievance Redress Mechanism Flow Diagram

6.13. 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 William (Myanmar) Industrial Company Limited consists of three main sectors; Health, Education and Communities Development Sector. CSR activities are conducted in compliance with MIC's guideline for implementation of CSR program.

William (Myanmar) Industrial Company Limited has a plan to implement and donate 2 percent of the profit per year for Corporate Social Responsibility (CSR) and Employee Welfare Arrangement.

Table 6-4 CSR Plan at William (Myanmar) Industrial Company Limited

Area	Priority item	Contribution (%)	Estimated Cost (Kyats)	Detail targets
Health	Healthcare for employees and their family	1.5 %	7,000,000	One of our main concerns is the well-being of our employees. We will contribute 0.6 % of our net profit for the healthcare which includes medical checkup for the employees and providing health education to our workers.
Education	Raising awareness education level and human right	1 %	5,000,000	We will contribute 0.6 % 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.
Community Development	Donation to local community	0.5%	3,000,000	<ul style="list-style-type: none"> • Donate to local charities with a worthy cause • Actively participate in community events • Encourage staff to participate, and to form a community engagement team to actively support community events • Embedding understanding and consciousness about human rights issues among the employees • Development of sexual harassment and power harassment (workplace bullying & harassment) prevention efforts

7. PUBLIC CONSULTATION AND DISCLOSURE

7.1. PUBLIC CONSULTATION PROCESS

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

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

- 1) Information the stakeholders about the Project, environmental and social issues related to project construction and operation, and mitigation measures to minimize environmental and social impacts;
- 2) Considering the views, concerns, and perceptions of stakeholders, communities and individuals that could be affected by the project or who otherwise have an interest in the project;
- 3) Participation and partnership where issues and needs are jointly discussed and assessed.

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

During the preparation of this report, the second wave of Covid-19 disease becomes serious in Yangon. The Ministry of Health and Support declared to avoid gathering more than 5 people to avoid close contact and to prevent spreading of disease. Thus, the project condition, the present environmental condition and the management plan are through the social media of Myanwei Environmental Solution Company Limited Facebook page -

(https://drive.google.com/file/d/157sdurR-AP_RaVMy_fwR0gbO_R4KtCpe/view?usp=drivesdk)

declared in 2nd August, 2022 due to current situation. The suggestion, complain and comments from the public, organization and stakeholder are warmly welcome and accept via mailing, comment, telephoning and messengers.

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

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



Figure 7-1 Announcement Post of Proposed Project at Social Media

8. CONCLUSION AND RECOMMENDATION

8.1. CONCLUSION

IEE has been prepared for WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED which is located at Plot No. A-8, Mingaladon Industrial Zone, Mingaladon Township, Yangon Region. The main objective of the study is focused specially on the required environmental management measures or creating environmentally friendly workplace. An IEE has been carried out for the factory according to the requirement of the proponent as it has been made for manufacturing of various kinds Sports Shoes on CMP basis.

WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED is using ground water for both industrial and household purpose, which is supplied by deep tube well. The factory also has generators for electricity generation. The fuel used in the industry is Diesel. The sanitary liquid waste of the factory is stored in septic tank.

The major pollution caused by the factory's operation are water pollution by discharging liquid waste generated in wet process i.e. air pollution by generator's effluent gas emission, noise pollution created during the operation of generator and other machines.

Solid wastes (recycle waste) such as broken machine parts, paper box, fabric scraps, etc. are hand over to local waste buyer. Although the factory causes some pollution but also has a positive side and that is the factory has created employment for many people, due to this factory local community has built up daily.

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

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 IEE 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 IEE will provide adequate opportunities to address any residual impacts during the operation phase.

In conclusion, it has been figured out that, the proposed Sports Shoes 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. RECOMMENDATION

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 PPE during factory operation area.
- Daily, monthly and annual action plan shall be formulated based on this EMP (Chapter 8) 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 IEE report. Once concerned authorities approve IEE report, effective implementation of IEE by the project proponent is essential. The proponent should abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

APPENDIX A
Company Registration of WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED



ကုမ္ပဏီမှတ်ပုံတင်လက်မှတ်
Certificate of Incorporation

ဝီလီယံ (မြန်မာ) အင်ဒတ်စထရီရယ် ကုမ္ပဏီ လီမိတက်
WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED
Company Registration No. 103502136

မြန်မာနိုင်ငံကုမ္ပဏီများအက်ဥပဒေ ၁၉၁၄ ခုနှစ် အရ
ဝီလီယံ (မြန်မာ) အင်ဒတ်စထရီရယ် ကုမ္ပဏီ လီမိတက်
အား ၂၀၁၄ ခုနှစ် အောက်တိုဘာလ ၂၁ ရက်နေ့တွင်
အစုရှယ်ယာအားဖြင့် တာဝန်ကန့်သတ်ထား သည့် အများနှင့်မသက်ဆိုင်သောကုမ္ပဏီ
အဖြစ် ဖွဲ့စည်းမှတ်ပုံတင်ခွင့် ပြုလိုက်သည်။

This is to certify that
WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED
was incorporated under the Myanmar Companies Act 1914 on 21 October
2014 as a Private Company Limited by Shares.

ကုမ္ပဏီမှတ်ပုံတင်အရာရှိ
Registrar of Companies

ရင်းနှီးမြုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန
Directorate of Investment and Company Administration



APPENDIX B MIC Permit

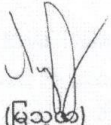



ပုံစံ(၂)
ပူးတွဲ-၁

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်

၂၀၁၄ ခုနှစ် မေလ ၂၈ ရက်နေ့ ရက်စွဲပါ ခွင့်ပြုမိန့်အမှတ် ၇၃၀/၂၀၁၄ တွင် ပြင်ဆင်ချက် ၂၀၁၆ ခုနှစ် ဒီဇင်ဘာလ ၁ ရက်နေ့တွင် ကျင်းပခဲ့သော မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်၏ ၂၂/၂၀၁၆ ကြိမ်မြောက် အစည်းအဝေးဆုံးဖြတ်ချက်အရ William (Myanmar) Industrial Co., Ltd. ၏ နိုင်ငံခြားမတည်ငွေရင်းပမာဏ နှင့် စုစုပေါင်းမတည်ငွေရင်းပမာဏအား “အမေရိကန်ဒေါ်လာ ၅ သန်း” မှ “အမေရိကန်ဒေါ်လာ ၅.၉၁၅ သန်း” သို့ တိုးမြှင့်ပြင်ဆင်ခွင့်၊ ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစားအား “CMP စနစ်ဖြင့် ဇာပန်းထိုး၊ သတို့သမီးဝတ်စုံနှင့် အသုံးအဆောင်ပစ္စည်းများ ထုတ်လုပ်ခြင်းလုပ်ငန်း” အစား “CMP စနစ်ဖြင့် အားကစားအဝတ်အထည်များ ထုတ်လုပ်ခြင်းလုပ်ငန်း” နှင့် “CMP စနစ်ဖြင့် အားကစားဖိနပ် ထုတ်လုပ်ခြင်းလုပ်ငန်း” သို့ ပြောင်းလဲပြင်ဆင်လိုက်သည်။

- (၁) နိုင်ငံခြားမတည်ငွေရင်းပမာဏ အမေရိကန်ဒေါ်လာ ၅.၉၁၅ သန်း
- (၂) စုစုပေါင်းမတည်ငွေရင်းပမာဏ(ကျပ်) အမေရိကန်ဒေါ်လာ ၅.၉၁၅ သန်းနှင့်
ညီမျှသော မြန်မာကျပ်ငွေ
- (၈) ရင်းနှီးမြှုပ်နှံသည့် လုပ်ငန်းအမျိုးအစား CMP စနစ်ဖြင့် အားကစား
အဝတ်အထည်များထုတ်လုပ်ခြင်းလုပ်ငန်း နှင့် CMP စနစ်ဖြင့် အားကစားဖိနပ်
ထုတ်လုပ်ခြင်းလုပ်ငန်း


 (မြသူဇာ)
 တွဲဖက်အတွင်းရေးမှူး


ရက်စွဲ၊ ၂၀၁၇ ခုနှစ် ဖေဖော်ဝါရီလ ၂၃ ရက်
နေရာ၊ ရန်ကုန်မြို့

၇၄၇
၂၃.၂.၂၀၁၇


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

Amendment on Permit No. 730/2014 dated 28th May, 2014

The Myanmar Investment Commission, at its meeting 22/2016 held on 1st December 2016, had approved that the amount of foreign capital and the total amount of capital of William (Myanmar) Industrial Co., Ltd. be increased from US\$ 5 million (United States Dollar five million) to US\$ 5.915 million (United States Dollar five million, nine hundred and fifteen thousand only) and also approved that the type of business be amended from "Manufacturing of Embroidery, Bridal Dress and Accessories on CMP Basis" to "Manufacturing of Sports Wears on CMP Basis" and "Manufacturing of Sports Shoes on CMP Basis."

- (h) **Amount of foreign capital** **US\$ 5.915 MILLION**
(j) **Total amount of capital (kyat)** **EQUIVALENT IN KYAT OF
US\$ 5.915 MILLION**
(f) **Type of business in which investment is to be made**
MANUFACTURING OF SPORTS WEARS ON CMP BASIS AND
MANUFACTURING OF SPORTS SHOES ON CMP BASIS

Date: 23 February 2017
Location: Yangon


(Mya Thuza)
Joint Secretary

APPENDIX C

Consultant Registration Certificate



THE REPUBLIC OF THE UNION OF MYANMAR
 Ministry of Natural Resources and Environmental Conservation
 Environmental Conservation Department



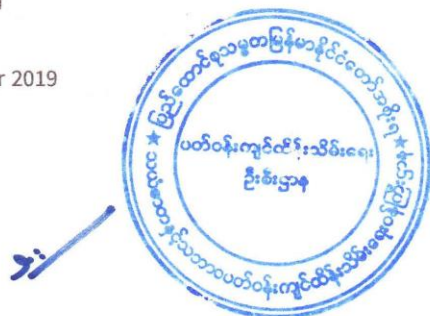
CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION
 (ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 10068 Date 24 MAY 2019

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

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

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



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

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

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



EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
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 တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
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) ရက်နေ့မှ (၃၀-၆-၂၀၂၁) ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
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) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၁) ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးမြှင့်ခြင်း)
The VALIDITY of this certificate is extended for one year from (1.1.2022) to (31.12.2022)
ဤလက်မှတ်အား (၁-၁-၂၀၂၂) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၂) ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department



REPUBLIC OF THE UNION OF MYANMAR
 Ministry of Natural Resources and Environmental Conservation
 CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION
 (ကြားကာလအကြိမ်းပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)



No. 0048 Date 31 March 2018

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

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

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

EXTENSION
 သက်တမ်းတိုးမြှင့်ခြင်း
 The VALIDITY of this certificate is extended
 for one year from (1.4.2018) to (31.3.2019)
 ဤလက်မှတ်အား (၀-၄-၂၀၁၈) ရက်နေ့မှ (၃၁-၃-၂၀၁၉)
 ရက်နေ့အထိ တစ်နှစ်သက်တမ်း တိုးမြှင့်သည်။
 For Director General
 (Soe Naing, Director)
 Environmental Conservation Department

(Handwritten signature in purple ink)

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)
ဤလက်မှတ်အား (၁-၁-၂၀၂၁) ရက်နေ့မှ (၃၀-၆-၂၀၂၁) ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
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) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၁) ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးမြှင့်ခြင်း)
The VALIDITY of this certificate is extended for one year from (1.1.2022) to (31.12.2022)
ဤလက်မှတ်အား (၁-၁-၂၀၂၂) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၂) ရက်နေ့အထိ တစ်နှစ် သက်တမ်းတိုးမြှင့်သည်။
Soe Naing 2022
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for nine months from (1.4.2019) to (31.12.2019)
ဤလက်မှတ်အား (၁-၄-၂၀၁၉) ရက်နေ့မှ (၃၁-၁၂-၂၀၁၉) ရက်နေ့အထိ (၉)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
10.6.2019
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
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 တစ်နှစ် သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
16.1.2020
For Director General
(Soe Naing, Director)
Environmental Conservation Department

APPENDIX D

Environmental Monitoring Quality Result

Noise result



Plot No. (36, 38), Room No. 5A, 3rd floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 524574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	William (Myanmar) Industrial Co., Ltd.
Project Location:	Plot No. A-8, Mingaladon Industrial Zone, Mingaladon Township, Yangon Region.
Sampling Date:	May 5, 2022
Sampling Time:	9:00 AM to 5:00 PM
Condition:	
Sampling By:	Environmental Team Represented by Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
BENETECH (Digital Sound Level Meter)	GM 1356 USB	30 -130 dB	Operation Area

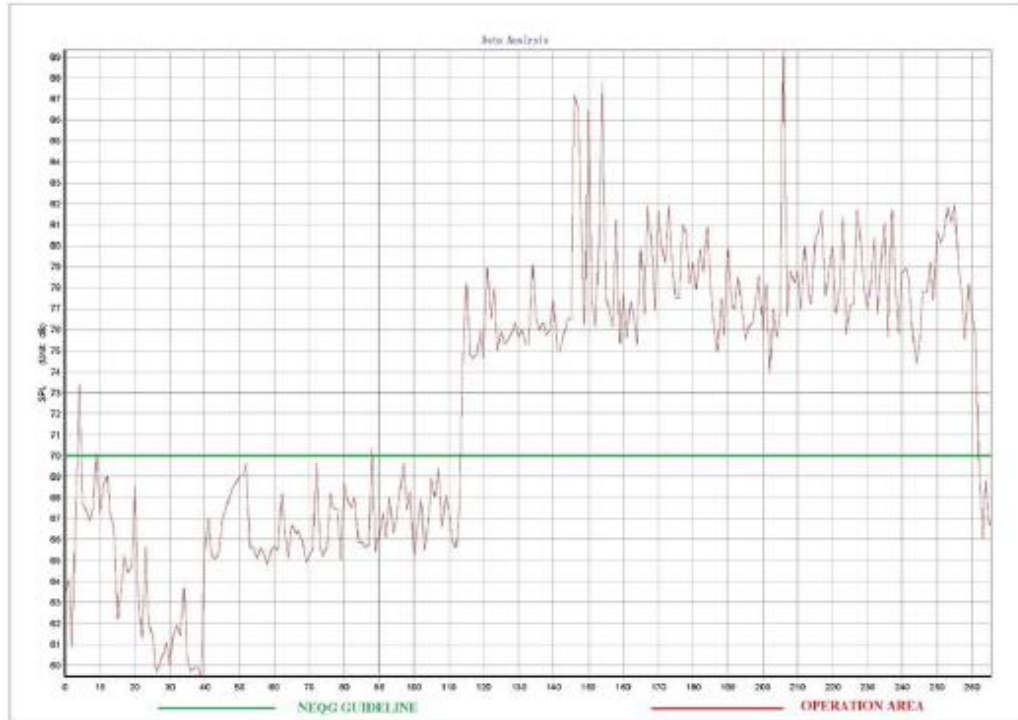
No	Place	Unit	Result	Standard	Remark
1	Operation Area	dBA	72.63	70 dBA	Above the limit

National Environmental Quality (Emission) Guideline

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

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Monitoring Graph



Air Quality Result



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) 9775403118, 9792528677, 9449231888; Website: www.myanweiconsulting.com

Project Name:	William (Myanmar) Industrial Co., Ltd.
Project Location:	Plot No. A-8, Mingaladon Industrial Zone, Mingaladon Township, Yangon Region.
Sampling Date:	May 5, 2022
Sampling Time:	9:00 AM to 5:00 PM
Sampling Condition:	
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
OCEANUS-AQM-09	PM, O ₃ , NO ₂ , SO ₂ , CO, CO ₂ Detector	0-999.9 (µg/m ³)	Operation Area (Outdoor)

National Environmental Quality (Emission) Guideline

Parameter	Averaging Period	Guideline Value	Unit
PM ₁₀ ^a	1-year	20	(µg/m ³)
	24-hour	50	
PM _{2.5} ^a	1-year	10	(µg/m ³)
	24-hour	25	
O ₃ ^a	8-hour	100	(µg/m ³)
NO ₂ ^a	1-year	40	(µg/m ³)
	1-hour	200	
SO ₂ ^a	24-hour	20	(µg/m ³)
	10-min	500	

a. Values from air quality guidelines-global update 2005: particulate matter, ozone, nitrogen dioxide and sulfur dioxide.

Monitoring Result

Parameters	Observed Value	Guideline Value	Unit	Organization	Period
PM ₁₀	29.23	50	µg/m ³	NEQG	8 hours
PM _{2.5}	25.52	25	µg/m ³	NEQG	8 hours
SO ₂	4.9	20	µg/m ³	NEQG	8 hours
NO ₂	11	200	µg/m ³	NEQG	8 hours

O ₃	3	100	µg/m ³	NEQG	8 hours
CO	0.3	NG	ppm	NEQG	8 hours
CO ₂	1	NG	ppm	NEQG	8 hours



LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Light Result



Plot No. (36, 38), Room No. 5A, 3rd 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:	William (Myanmar) Industrial Co., Ltd.
Project Location:	Plot No. A-8, Mingaladon Industrial Zone, Mingaladon Township, Yangon Region.
Sampling Date:	May 5, 2022
Sampling Time:	9:00 AM to 5:00 PM
Sampling Condition:	
Sampling By:	Environmental Team Represented by Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
Uni-T (Luminometer)	UT380 Series	100 times/second	16°85'93.18"N 96°05'55.14"E

No	Measure area	Unit	Result	Standard	Remark
1	Warehouse	Lux	350	300	
2	Cutting Department	Lux	950	1000	
3	Stitching Department	Lux	950	1000	
4	Lasting Department	Lux	585	600	
5	Packing Department	Lux	590	600	

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.

Water Result



Goshu-A1 Eco Business Company Limited

Plot No.19, 2nd Street, Yangon Industrial Zone, Mingalardon Township, Yangon,

Ph: +959-253685274

Wastewater Analysis Report

Customer name: William (Myanmar) Industrial Co.,Ltd.
Project: Mingalardon Industrial Park
Sample Name: William Myanmar Wastewater
Receiving Date: 01/11/2021
Reporting Date: 11/11/2021

Sample No: 110101
Sampling Date: 01/11/2021
Analytical Date: 01-11/11/2021
Report No: ARWW 211101
Job No: MMA 211101

No.	Item	Result	Method	Detection Limit
1	pH	6.8	*SM 2012:4500 H ⁺ B Electrometric	-
2	Total Dissolved Solid (mg/L)	107	*SM 2012:2540C Dried at 180°C	100
3	Suspended Solid (mg/L)	32	*SM 2012:2540D Dried at 103°-105°C	10
4	COD _{Cr} (mg/L)	64.5	*SM 2012:5220D Close Reflux, Colorimetric	10
5	BOD (mg/L)	40.8	*SM 2012:5210B 5-Day BOD Test	1
6	Nitrate-Nitrogen (mg/L as NO ₃ ⁻ -N)	<0.1	EPA, Brucine Colorimetric	0.1
7	Dissolved Oxygen (mg/L)	6.0	*SM 2012: 4500-OG Membrane Electrode	-

*Based on Standard Methods for the Examination of Water and Wastewater (SM), APHA,AWWA, WEF

**JIS Handbook

Analyzed by: 

Aung Kyaw Khine
Laboratory Technician
Goshu-A1 Laboratory

Approved by: 


KOJI NAKAHASHI
MANAGING DIRECTOR
GOSHU-A1 ECO BUSINESS CO.,LTD.

REPORT RESULT IS ONLY OF THE SAMPLE SUBMITTED FOR ANALYSIS.
THIS ANALYSIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT WRITTEN APPROVAL OF THE LABORATORY OF
GOSHU-A1 ECO BUSINESS CO. LTD.

APPENDIX E
Fire Safety Certificate



ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ပြည်ထဲရေးဝန်ကြီးဌာန
မီးသတ်ဦးစီးဌာန



မီးဘေးလုံခြုံရေးစစ်ဆေးထောက်ခံချက်

အမှတ်စဉ်(၁၉၇၈)

ရက်စွဲ၊ ၂၀၁၉ခုနှစ်၊ ဇန်နဝါရီလ ၇ ရက်

၁။ ရန်ကုန် တိုင်းဒေသကြီး/ပြည်နယ်၊ မင်္ဂလာဒုံ မြို့နယ်၊ မင်္ဂလာဒုံစက်မှုဇုန် ရပ်ကွက်/
ကျေးရွာ - လမ်းအမှတ် (A-8) ပိုင်ရှင်ဦး/ဒေါ် William (Myanmar) Industrial Co., Ltd
RCC(၃)ထပ်Office+(အထည်ချုပ်+မိနပ်)စက်ရုံ+RCC(၂)ထပ်(Guard House)(၂)လုံး+RCC(၁)ထပ်
Electrical Room+RCC(၃)ထပ်(၂)လုံး+(၂)ထပ်(၂)လုံး(အလုပ်သမားအိပ်ခန်း)+RCC(၂)ထပ်Canteen

အဆောက်အဦအတွက်ဤဌာန၏(၅-၁၁-၂၀၁၈)ရက်စွဲပါစာအမှတ်၊ ၈၁၉၊ ၈၂၀၊ ၈၂၁၊ ၈၂၂၊ ၈၂၃/၁၀၀/ ၅၂/ဦးခ
ဖြင့်သတ်မှတ်ပေးထားသည့် မီးဘေးလုံခြုံရေးဆိုင်ရာပြဌာန်းချက်များအား(၂၃-၁၂-၂၀၁၈)ရက်နေ့တွင်
စစ်ဆေးသည့်အခါပြည့်စုံစွာ ဆောင်ရွက်ထားကြောင်း စစ်ဆေးတွေ့ရှိရသည်။

- ၂။ ဤထောက်ခံချက်သည် စစ်ဆေးသည့်နေ့မှစ၍ (၃)နှစ်အထိသာ အကျိုးဝင်သည်။
- ၃။ ထို့ပြင် မီးသတ်ဦးစီးဌာနမှ အခါအားလျော်စွာ ထပ်မံစစ်ဆေးချိန်တွင် မီးဘေးလုံခြုံရေးဆိုင်ရာ
ပြဌာန်းချက်များကို လိုက်နာဆောင်ရွက်ခြင်းမရှိပါက ဤထောက်ခံချက်ကို ပြန်လည်ရုတ်သိမ်းသွားမည်ဖြစ်ပြီး
အဆောက်အဦအားအသုံးပြုသူ(သို့မဟုတ်)ပိုင်ရှင်သည် မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ ဥပဒေအရ အရေးယူခြင်းခံရမည်။

မှတ်ချက်။ ဤထောက်ခံချက်အား လွှဲပြောင်းသုံးစွဲခြင်းမပြုရ။ အဆောက်အဦအား မူလရည်ရွယ်ချက်မှ
ပြောင်းလဲအသုံးပြုပါက ထောက်ခံချက်အသစ် ထပ်မံလျှောက်ထားရမည်။


ညွှန်ကြားရေးမှူးချုပ်(ကိုယ်စား)
(ကျော်သူရ၊ ညွှန်ကြားရေးမှူး)

စက်ရုံ/ အလုပ်ရုံများတွင် တပ်ဆင်ထားရှိသည့် မီးဘေးလုံခြုံရေးဆိုင်ရာစနစ်များအပေါ်
စစ်ဆေးတွေ့ရှိ အစီရင်ခံစာ

- ၁။ ပိုင်ရှင်အမည် William Myanmar Industrial Co.,Ltd
- ၂။ လိပ်စာ အမှတ်(A-8)၊ မင်္ဂလာဒုံစက်မှုဇုန်၊ မင်္ဂလာဒုံမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး
- ၃။ အဆောက်အဦအမျိုးအစားနှင့်အသုံးပြုမှု RCC(၃)ထပ် (အထည်ချုပ်+ဖိနပ်)စက်ရုံ
- ၄။ အဆောက်အဦအရေအတွက် (၉)လုံး
- ၅။ လုပ်ငန်းအမည်နှင့် အမျိုးအစား William Myanmar Industrial Co.,Ltd (ဖိနပ်စက်ရုံ)
- ၆။ ဝန်ထမ်းအရေအတွက် ကျား(၈၉)ဦး၊ မ(၂၇၄)ဦး၊ ပေါင်း(၃၆၃)ဦး
- ၇။ စစ်ဆေးသည့်ရက်စွဲ ၇.၈.၂၀၂၀
- ၈။ Fire Safety Certificate ထုတ်ပေးရက်စွဲ ၃.၁၂.၁၉
- ၉။ Fire Safety Manager ရှိ/ မရှိ မရှိပါ(သင်တန်းတက်ရောက်ရန်လျာထား/သီးခြားတာဝန်ပေးထား)

စဉ်	တပ်ဆင်ထားသည့် မီးဘေးလုံခြုံရေးပစ္စည်းအမျိုးအစား	အရေအတွက်/ပမာဏ	ကိုက်ညီမှုရှိ/ မရှိ စစ်ဆေးတွေ့ရှိချက်			မှတ်ချက်
			ကောင်း	သင့်	ပျက်	
၁	မီးသတ်ယာဉ်ပတ်လမ်း (Fire Engine Access Road)ရှိ/မရှိ		√			
၂	မီးသတ်ယာဉ်ရပ်ရန်နေရာ (Fire Engine Accessway)		√			
၃	Exit Door	၂၂ ခု	√			
၄	Exit Sign	၃၈ ခု	√			
၅	Emergency Lighting	၇၂ ခု	√			
၆	Fire Alarm Bell/ Manual Call Point	၃၆ ခု	√			
၇	Fire Extinguisher	၁၀၂ ခု	√			
၈	Smoke Detector	၁၃၄ ခု	√			
၉	Heat Detector	၉ ခု	√			
၁၀	Beam Detector		-			
၁၁	အဆောက်အဦအတွင်း လေဝင်/ လေထွက် ကောင်းမွန်မှု ရှိ/မရှိ		√			
၁၂	Standby Generator		-			
၁၃	Hose Reel	၃၀ ခု	√			

စဉ်	တပ်ဆင်ထားသည့် မီးဘေးလုံခြုံရေးပစ္စည်းအမျိုးအစား	အရေအတွက်/ ပမာဏ	ကိုက်ညီမှုရှိ/ မရှိ စစ်ဆေးတွေ့ရှိချက်			မှတ်ချက်
			ကောင်း	သင့်	ပျက်	
၁၄	Hydrant	၅ ခု	√			
၁၅	Sprinkler	၆၆၄ ခု	√			
၁၆	Water Monitor		-			
၁၇	Breeching Inlet	2 Ways	√			
၁၈	Water Capacity	၄၀၀၀၀ဂါလံ				
၁၉	Fire Pump Control Panel					ရှိ
၂၀	Pump System					
	Jockey Pump (Electric)	3 Hp	√			
	Duty Pump (Electric)	50 Hp	√			
	Standby Pump (Diesel)	50 Hp	√			
	Pump Control Panel		√			
၂၁	Fire Alarm Panel		√			ရှိ
၂၂	မီးသတ်ပစ္စည်းကိရိယာများအပေါ် စစ်ဆေးမှုနှင့် Drill ပြုလုပ်မှု					
	နေ့စဉ်					မရှိ
	အပတ်စဉ်					ရှိ
	လစဉ်					ရှိ
၂၃	စီမံချက်ရေးဆွဲပြုစုထားရှိမှု					ရှိ
၂၄	သီးသန့်မီးသတ်တပ်ဖွဲ့ ဖွဲ့စည်းထားရှိမှု	၁၆ ဦး				ရှိ

၁၀။ စစ်ဆေးတွေ့ရှိချက်။ တပ်ဆင်ထားသည့် မီးသတ်ပစ္စည်းကိရိယာများ... Functionပြည့်မီမှုရှိခြင်းနှင့် (FireSafetyManager) (၁)ဦးသင်တန်းတက်ရောက်ရန်လျာထားပြီး (သီးခြားတာဝန်ပေးထား) သည်ကို စစ်ဆေးတွေ့ရှိရပါသည်။

၁၁။ အကဲဖြတ်တွေ့ရှိချက်။ William Myanmar Industrial Co.,Ltd RCC(၃)ထပ် (အထည်ချုပ်ဖိနပ်)စက်ရုံသည် A Group အဆင့်ရှိသည်ကို စစ်ဆေးတွေ့ရှိရပါသည်။

၁၂။ အကြံပြုချက်။ မီးငြိမ်းသတ်ရေးပစ္စည်းကိရိယာများကို နေ့စဉ်၊ အပတ်စဉ်၊ လစဉ် သတ်မှတ်ချက်နှင့် အညီ ထိန်းသိမ်းစောင့်ရှောက်သွားရန်။

၁၃။ တင်ပြချက်။ ရန်ကုန်တိုင်းဒေသကြီး၊ မင်္ဂလာဒုံမြို့နယ်၊ မင်္ဂလာဒုံစက်မှုဇုန်၊ အမှတ် (A-8) ရှိ William Myanmar Industrial Co.,Ltd RCC(၃)ထပ် (အထည်ချုပ်ဖိနပ်)စက်ရုံတွင် တပ်ဆင်ထားသော မီးသတ်ပစ္စည်း ကိရိယာများသည် Function ပြည့်မီမှုရှိပြီး ပိုင်ရှင်နှင့် တာဝန်ရှိသူများမှ စက်ရုံမီးဘေးလုံခြုံရေးနှင့် ပတ်သက်၍ အလေးထားဆောင်ရွက်မှုရှိသည်ကို တင်ပြအပ်ပါသည်။

အဖွဲ့ခေါင်းဆောင်
ဦးမြင့်ဦး၊ လက်ထောက်ညွှန်ကြားရေးမှူး

အဖွဲ့ဝင်
ဦးကျော်ဇင်ဟိန်း
ဒုမီးသတ်ဦးစီးမှူး

အဖွဲ့ဝင်
ဦးမြင့်ခိုင်
ဦးစီးအရာရှိ

အဖွဲ့ဝင်
ဦးမင်းဇော်ဦး
ဦးစီးအရာရှိ

အဖွဲ့ဝင်
ဒေါ်ခင်ပပလှိုင်
လ/ထမီးသတ်ဦးစီးမှူး

စစ်ဆေးသည့်ရက်စွဲ/အချိန် ၇.၈.၂၀၂၀ (၀၉.၁၅)နံနက်အချိန်



မြို့နယ် မီး သတ် ဦး စီး မှူး ရုံး
ရန်ကုန်တိုင်းဒေသကြီး၊ မင်္ဂလာဒုံမြို့နယ်
စာအမှတ်၊ ၇၅၅ / ၁၀ / ၁ / ဦး - ၁
ရက် စွဲ၊ ၂၀၁၉ခုနှစ်၊ ဇူလိုင်လ (၁၈) ရက်

သို့

သက်ဆိုင်ရာ

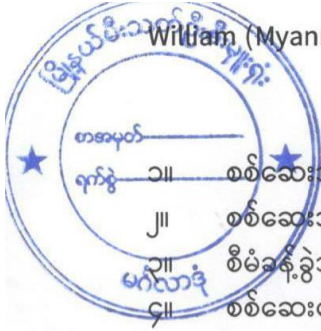
အကြောင်းအရာ။ ထောက်ခံချက်ပေးပို့ခြင်း

ရန်ကုန်တိုင်းဒေသကြီး၊ မြောက်ပိုင်းခရိုင်၊ မင်္ဂလာဒုံမြို့နယ်၊ အမှတ် (A-8)၊ မင်္ဂလာဒုံစက်မှုဇုန်ရှိ William (Myanmar) ဖိနပ်စက်ရုံသည် မြို့နယ်မီးသတ်ဦးစီးဌာနနှင့်ပူးပေါင်း၍ ၁၆. ၁၁ . ၂၀၁၉ ရက်နေ့တွင် စက်ရုံရှိ ဝန်ထမ်းများအား မီးဘေးကြိုတင်ကာကွယ်ရေးအတွက် ဟောပြောခြင်း၊ မီးသတ်ပစ္စည်းကိရိယာများ အသုံးပြု၍ လက်တွေ့မီးငြိမ်းသတ်လေ့ကျင့်ခြင်းများ ဆောင်ရွက်ခဲ့သည်မှာ မှန်ကန်ပါကြောင်းထောက်ခံ အပ်ပါသည်။

မြို့နယ်မီးသတ်ဦးစီးမှူး
မြင့်နိုင်၊ ဦးစီးအရာရှိ
မင်္ဂလာဒုံမြို့နယ်

မိတ္တူ

ရုံးလက်ခံ



William (Myanmar) CO., Ltd (ဖိနပ်စက်ရုံ)

လုပ်ငန်းအား ကွင်းဆင်းဆောင်ရွက်တွေ့ရှိချက်

13.8.2019

William (Myanmar) CO., Ltd

မင်္ဂလာဒုံစက်မှုဇုန်

ဒေါ်ခင်ဌေးလင်း

ဒုမီးသတ်ဦးစီးမှူး

ဦးညီညီအောင်

တပ်ကြပ်ကြီး

အောင်ဇော်စိုး

တပ်ကြပ်

သိပ်ညွှန်အောင်

၅။ စစ်ဆေးတွေ့ရှိချက်

Fire Safety Certificate ရယူထားကြောင်းတွေ့ရှိ။

Fire Safety Managerထားရှိခြင်းမရှိပါ။

သီးသန့်မီးသတ်တပ်ဖွဲ့ဖွဲ့စည်းထားခြင်းမရှိကြောင်းတွေ့ရှိ။
မီးဘေးလုံခြုံရေးစီမံချက် ရေးဆွဲထားခြင်းမရှိကြောင်းတွေ့
ရှိ။

ဝါယာကြိုးများအား ယာယီသွယ်တန်း၍ အသုံးပြုထား
ကြောင်းတွေ့ရှိ။

၆။ သုံးသပ်ချက်

Fire Safety Certificate ရရှိပြီးဖြစ်ပါ၍ မီးဘေးအန္တရာယ်
ကြိုတင်ကာကွယ်ပြီးဖြစ်ပါကြောင်းသုံးသပ်ရပါသည်။

၇။ အကြံပြုချက်

Fire Safety Managerထားရှိရန်လိုအပ်ပါသည်။

မီးသတ်ဆေးဘူးများ ထပ်မံဖြည့်တင်းထားရန်။

ဝါယာကြိုးများအား ယာယီသွယ်တန်း၍ အသုံးမပြုရန်။

မြို့နယ်မီးသတ်ဦးစီးဌာနနှင့် ဆက်သွယ်၍ (၆)လလျှင်
(၁)ကြိမ် မီးဘေးကြိုတင်ကာကွယ်ရေး ဇာတ်တိုက်
လေ့ကျင့်မှုများ ဆောင်ရွက်ထားရှိရန်။

မင်္ဂလာဒုံမြို့နယ်မီးသတ်ဦးစီးဌာန၏ တယ်လီဖုန်းနံပါတ်
၀၁ ၇၄၃၇၁၇၈ နှင့်မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ဌာနချုပ်၏
အရေးပေါ်ဖုန်းနံပါတ် ၁၉၁ တို့အားမြင်သာသောနေရာများ
တွင်ထားရှိရန်။

မီးဘေးလုံခြုံရေးစီမံချက်ရေးဆွဲ၍နှစ်စဉ် မြို့နယ်မီးသတ်
ဦးစီးမှူးရုံးသို့ ပေးပို့ရန်။

မြို့နယ်မီးသတ်ဦးစီးမှူး
မြင့်ခိုင်၊ ဦးစီးအရာရှိ
မင်္ဂလာဒုံမြို့နယ်

APPENDIX F
Fire Fighting Training Photos



APPENDIX G

Power Point Presentation Slides

8/2/2022

WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED ၏ ဖိနပ်ထုတ်လုပ်ခြင်းလုပ်ငန်း

တနင်္ငူမြို့ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအတွက်
ထွေးခွေစာရွက်

ပြင်ဆင်သူ: ဦးကျော်မင်း
Prepared By:
Myanmar Environmental Solutions Co., Ltd

အစည်းအဝေး အကြောင်းအရာ

- ၀။ William (Myanmar) Industrial Company Limited အား မိတ်ဆက်ခြင်း
- ၂။ တနင်္ငူမြို့ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း နှင့် ပတ်သက်သော အကြောင်းအရာများအား မိတ်ဆက်ခြင်း
- ၃။ ထုတ်လုပ်မှုဆန်းစစ်ခြင်း စုလုပ်မှုနှင့် ငါးပိုက်များဆိုင်ထုတ်လုပ်မှုများ
- ၄။ ပတ်ဝန်းကျင်အထိ သက်ရောက်မှုများနှင့် မြေသလွှာအမျှညှစ်လုပ်ငန်းများ
- ၅။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် နှင့်
- ၆။ စက်ရုံ၏ပတ်ဝန်းကျင်များ

William (Myanmar) Industrial Company Limited စက်ရုံတည်နေရာ

WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED ၏ ခွဲစည်ခုံ

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    graph TD
      SD[Stitching Department] --> M1[Henry Tin]
      LD[Leasing Department] --> M2[Mr. Zin Oo, Mr. Chit Khin, Mr. Myo Zin]
      OD[Other Department] --> M3[Min Mye Lynn]
      M1 --> L1[Line-1]
      M1 --> L2[Line-2]
      M1 --> L3[Line-3]
      L1 --> C1[Chk]
      L2 --> C2[Chk]
      L3 --> C3[Chk]
      M2 --> L4[Leasing Line 1]
      M2 --> L5[Leasing Line 2]
      M2 --> L6[Leasing Line 3]
      M2 --> L7[Leasing]
      M2 --> L8[QC Leader]
      M2 --> L9[Chk Lead]
      M2 --> L10[Warehouse Leader]
  
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WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED	
လုပ်ငန်းအမျိုးအစား	ပီနပ်ချွပ်လုပ်ငြင်းလုပ်ငန်း
စွင်ပြင်မိန့်အမှတ်	(စွင်ပြင်မိန့်အမှတ်- ၇၃၀/၂၀၁၄) ၂၀၁၄ ခုနှစ် ၊ မေလ ၊ ၂၈ ရက်
ရင်းနှီးမြှုပ်နှံမှု	၁၀၀ ရာခိုင်နှုန်း နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု
ပြေစရိတ်	ပြေစရိတ်ထုတ်ပေးခြင်း = ၂,၅၀၂ ဧက (၁၀၁၂၇ စတုရန်းမီတာ)
ရင်းနှီးမြှုပ်နှံသည့်ကာလ	၃၄ နှစ်
စက်ရုံလိပ်စာ	မြေကွက်အမှတ်- အေ (၈) မင်္ဂလာဒုံစက်မှုဇုန် ၊ မင်္ဂလာဒုံမြို့နယ်၊ ရန်ကင်းတိုင်းဒေသကြီး

လုပ်ငန်းလည်ပတ်ရန်အခြေခံလိုအပ်ချက်များ	
ခရီးဆင်းပြင်ဆင်ရေး	
ခရီးဆင်းအပြင်	အင်္ဂါစက်ရုံ (၁ တွင်း)
အဓိကလိုအပ်ချက်	
လက်ရှိလူဦးရေ	နိုင်ငံခြားသားလုပ်သား (၃) ဦး နှင့် နိုင်ငံသား (ပြည်တွင်း) လုပ်သား (၁၂၉) ဦး
အဓိကကုန်ကြမ်း	သားရေ ဖိုင်းဘာ၊ PVC /PE ၊ ကော် နှင့် ဆက်စပ်ပစ္စည်းများ
နှစ်စဉ်ထွက်ကုန်ပစ္စည်းပမာဏ	နှစ်စဉ် ပျမ်းမျှအရေအတွက် ပထမနှစ်မှ ၁၀နှစ်အတွင်း ၂၄၀၀၀၀ မှ ၃၅၀၂၅၂၉ အထိ



WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED ၏ ထုတ်လုပ်ပုံများ



ပစ္စည်းသိုလှောင်ခြင်း စိတ်ဖြတ်ခြင်း

ထွဲ့ထက်ခြင်း ထပ်ဆင့်ခြင်း

WILLIAM (MYANMAR) INDUSTRIAL COMPANY LIMITED ၏ ထုတ်လုပ်ပုံများ

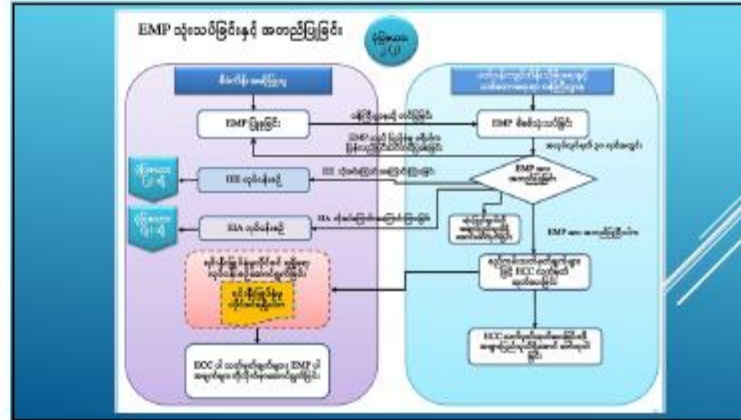


စစ်ဆေးခြင်း ထုတ်ပို့ခြင်း

William (Myanmar) Industrial Company Limited ၏ ထုတ်ကုန်ပစ္စည်းများ



ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အား မိတ်ဆက်ခြင်း



သက်ရောက်မှုဆန်းစစ်ခြင်းရလဒ်များနှင့် ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ

ပီပံကိန်းပတ်ဝန်းကျင်အနေအထား

ရပ်	အခြေအနေအထား	မတင်ပြချက်
၀၁	တိုင်းပတ်အမှတ်	မြောက်လတ္တီကျု 16°56'42" နှင့် အရှေ့လောင်ဂျီကျု 96°06'18"
၂	ရာထီဥက္ကဋ္ဌအခြေအနေ	မင်္ဂလာတိုင်းနယ်၊ နယ်လမ်းအမှတ် 397-C၊ အမှတ် 15/15၊ ဝန်ထမ်းအရပ်၊ 2581 လက်မ
၃	စက်ရုံအခြေအနေ	စက်ရုံလုပ်ငန်းနှင့်ဆက်သွယ်ထားသော အခြေအနေအထား (စက်ရုံအနီး)
၄	လမ်းပန်းအခြေအနေ	အမှတ် (၂) လမ်းမကြီး
၅	အနီးအဝေးအခြေအနေ	မရှိ
၆	သစ်တောအခြေအနေ	မရှိ
၇	ကန့်သတ်ကာကွယ်ထားသော ဓာတ်အား	မရှိ
၀၂	တိုင်းပတ်အခြေအနေ	<input type="checkbox"/> ဆူညံသံ တိုင်းပတ်ခြား <input type="checkbox"/> အလင်းရောင် တိုင်းပတ်ခြား <input type="checkbox"/> အလေ့အထအခြေအနေ တိုင်းပတ်ခြား <input type="checkbox"/> အပူချိန် နှင့် စိုက်ပျိုးမှု အခြေအနေ တိုင်းပတ်ခြား

ဆူညံသံတိုင်းတာမှု

Date and Time	Location	GFS value	Result value	NEQ Guideline
5 May 2022 (9:00 am to 5:00 pm)	Operation Area	16°56'40.31"N 96°9'16.77"E	72.63	70 dBA

အထက်ဖော်ပြပါ ဆူညံသံတိုင်းတာမှုရလဒ်များအရ William (Myanmar) Industrial Company Limited ၏ဆူညံသံများမှာ National Emission Quality Guideline ထက် အနည်းငယ် ကျော်လွန်နေသည်ကို ဆန်းစစ်တွေ့ရှိရပါသည်။



လုပ်ငန်းခွင်အလင်းရောင်တိုင်းတာမှု

Visual task	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, hokey mending, gauging very small parts)	1,300-2,000	13-16

လုပ်ငန်းခွင်အတွင်းအလင်းရောင်တိုင်းတာမှု



ပတ်ဝန်းကျင်ဓာတ်ထုတိုင်းတာမှု

Parameter	Observed value	Guideline value	Unit	Organization	Averaging period
PM ₁₀	25.52	10 25	µg/m ³	NEQO	24 hrs 1 year
PM _{2.5}	29.23	50 20	µg/m ³	NEQO	24 hrs 1 year
SO ₂	4.9	500 20	µg/m ³	NEQO	10 minutes 24 hrs
NO ₂	11	200 40	µg/m ³	NEQO	1 hrs 1 year
O ₃	3	100	ppm	NAAQS	8 hrs maximum
CO	0.3	10	ppm	ACGIH	24 hrs
CO ₂	1	400	ppm	EPA	24 hrs

ပတ်ဝန်းကျင်ဓာတ်ထုတိုင်းတာမှု

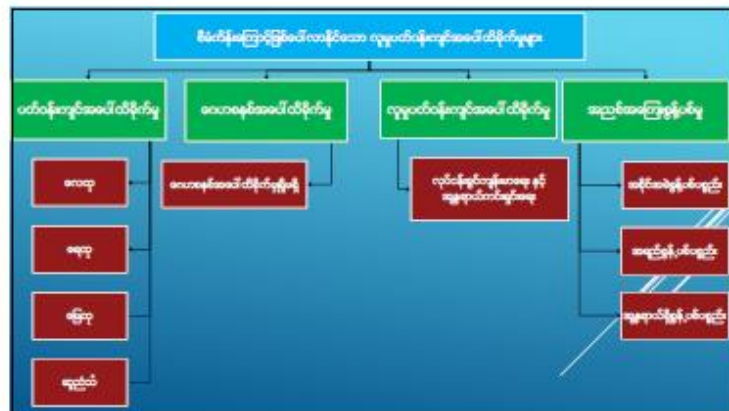


အပူချိန်တိုင်းတာမှု




Yangon Nadia-Pacific Clothing Company Limited ၏ လုပ်ငန်းခွင်ပျမ်းမျှပူအပူချိန် ၃၆.၀% နှင့် အပူချိန်တိုင်းတာမှုမှာ ၄၀.၇°C ရှိပါသည်။

ပတ်ဝန်းကျင်အပူချိန် သက်ရောက်မှုများနှင့် မြေလျှော့ရေးနည်းလမ်းများ



ပတ်ဝန်းကျင်	စီမံကိန်းအခြေခံပြုစီမံကိန်း	မြေလျှော့ရေး အစီအစဉ်အခြေခံ
ရေထုတ်	<ul style="list-style-type: none"> - စီမံကိန်း အပူချိန်တိုင်းတာမှုနှင့် အပူချိန်တိုင်းတာမှု အသုံးပြုမှုများကို ပတ်ဝန်းကျင်အပူချိန်တိုင်းတာမှု 	<ul style="list-style-type: none"> - အညွှန်းအခြေခံပြုစီမံကိန်းအစီအစဉ်အခြေခံ - စီမံကိန်းအပူချိန်တိုင်းတာမှု FPE အခြေခံအစီအစဉ်အခြေခံ
စီမံကိန်းအခြေခံ	<ul style="list-style-type: none"> - ကျွန်ုပ်တို့၏လုပ်ငန်းခွင်နှင့် လုပ်ငန်းခွင်အပူချိန်တိုင်းတာမှု 	<ul style="list-style-type: none"> - ကျွန်ုပ်တို့၏လုပ်ငန်းခွင်အပူချိန်တိုင်းတာမှု - လုပ်ငန်းခွင်အပူချိန်တိုင်းတာမှု အစီအစဉ်အခြေခံ
ရေထုတ်အပူချိန်	<ul style="list-style-type: none"> - လုပ်ငန်းခွင်အပူချိန်တိုင်းတာမှု အစီအစဉ်အခြေခံ - လုပ်ငန်းခွင်အပူချိန်တိုင်းတာမှု အစီအစဉ်အခြေခံ 	<ul style="list-style-type: none"> - ရေထုတ်အပူချိန်တိုင်းတာမှု အစီအစဉ်အခြေခံ - ရေထုတ်အပူချိန်တိုင်းတာမှု အစီအစဉ်အခြေခံ
ရေထုတ်အပူချိန်	<ul style="list-style-type: none"> - ရေထုတ်အပူချိန်တိုင်းတာမှု အစီအစဉ်အခြေခံ - ရေထုတ်အပူချိန်တိုင်းတာမှု အစီအစဉ်အခြေခံ 	<ul style="list-style-type: none"> - ရေထုတ်အပူချိန်တိုင်းတာမှု အစီအစဉ်အခြေခံ - ရေထုတ်အပူချိန်တိုင်းတာမှု အစီအစဉ်အခြေခံ

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်

ခလတုညစ်ညမ်းမှုလျှော့ချရေး	
ရည်ရွယ်ချက်	စီမံကိန်းကြောင့် စက်ရုံမှ ထွက်သော ဓာတ်ငွေ့များနှင့် စီးစက်များမှ ထွက်ရှိသော ဓာတ်ငွေ့များကြောင့် ခလတုညစ်ညမ်းမှုကို လျှော့ချရန်
လိုက်နာရမည့် စည်းကမ်း	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအစည်းအဝေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှု အစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံအတွင်းနှင့် အနာရန်းတွင်းတွင် သစ်ပင်ပန်းပုစိုက်ပျိုးခြင်း စက်ရုံအတွင်း မည်သည့်ရှုပ်ပစ်ပစ္စည်းများအား နီရှီ ဖျက်စီးခြင်း၊ မပြုလုပ်ခြင်း လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ်သော အကာအကွယ်ပစ္စည်းများဖြစ်သည့် ခလတုကာ/ခနုကာမျက်မှန်များ၊ နှာခေါင်းစည်း၊ Helmets စသည်တို့အားစတင်ပေးခြင်း၊ အဝတ်ပညာပေး သင်တန်းများ ပေးခြင်း
တာဝန်ယူရမည့် ပုဂ္ဂိုလ်	<ul style="list-style-type: none"> ပြုပြင်ထိန်းသိမ်းရေးအဖွဲ့ - ခလတုညစ်ညမ်းမှုလျှော့ချရေးမူဝါဒလမ်းညွှန်များ ပတ်ဝန်းကျင်ရေးရာဌာန - လုပ်ငန်းရှင်/လုပ်သားရုံးရှင်အဖွဲ့ မန်နေဂျာ - ပတ်ဝန်းကျင်လေအစဉ်အတွေ့တိုင်တာဝန် (Third Party) ဖြစ်သည့်အထောက်အကူ

ဆူညံသံလျှော့ချရေး	
ရည်ရွယ်ချက်	ခလတုပတ်ဝန်းကျင်ဆူညံမှုပုံစံဖြင့် ခလတုနှင့် စက်ရုံရှိ စီးစက်နှင့် အခြားစက်ပစ္စည်းများ ကြောင့် လုပ်သားများအပေါ် ထိခိုက်မှု လျှော့ချရန်
လိုက်နာရမည့် စည်းကမ်း	<ul style="list-style-type: none"> ပတ်ဝန်းကျင်ထိခိုက်မှုအစီအစဉ်ဆိုင်ရာထုတ်လွှတ်ချက် (၂၀၁၅) အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအစည်းအဝေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> စီမံခန့်ခွဲမှုအစီအစဉ်ကို ဆူညံသံထိခိုက်မှုမရှိနိုင်သော ခန်းခွဲ၊ ဆူညံချိတ် တည်ဆောက်ထားခြင်း လုပ်ငန်းသုံးယာဉ်များကိုဆူညံသံလျှော့ချရန်သတ်မှတ်ဆီလီကွန်တိနယ်များပေးပို့ပေးခြင်း လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ်သော အကာအကွယ်ပစ္စည်းများဖြစ်သည့် ခလတုကာ/ခနုကာမျက်မှန်များ၊ နှာခေါင်းစည်း၊ Helmets စသည်တို့အား စတင်ပေးခြင်း၊ အဝတ်ပညာပေး သင်တန်းများ ပေးခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - ဆူညံသံတိုင်တာဝန် (Third Party) ဖြစ်သည့်အထောက်အကူ

အပိုင်အမိစ္ဆာရှုစွဲပစ်မှတ် ထိန်းသိမ်းရေး	
ရည်ရွယ်ချက်	ရွှန်ပစ်အပိုင်ထုတ်လွှတ်မှုလျှော့ချရန် ရွှန်ပစ်အပိုင်ကြောင့် ပတ်ဝန်းကျင်ညစ်ညမ်းမှုကို လျှော့ချရန်
လိုက်နာရမည့်စည်းကမ်း	<ul style="list-style-type: none"> ပတ်ဝန်းကျင်ထိခိုက်မှုအစီအစဉ်ဆိုင်ရာထုတ်လွှတ်ချက် (၂၀၁၅) National Waste Management Strategy and Action Plan (Dewt 2018)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံမှ မည်သည့်ရှုပ်ပစ်ပစ္စည်းမှ မြစ်၊ ဓနုရင်း၊ အင်း၊ နိုင် အတွင်းသို့ မရွှန်ပစ်ရ စက်ရုံတွင် ရွှန်ပစ်ပစ္စည်းများကို ပြန်လည်အသုံးပြုနိုင်သောပစ္စည်း(ပစ္စည်းအစား အစားပေး ပတ်ဝန်းကျင်) များကို ဖြည့်လွှတ်ပေးပေးရမည် ဖြစ်ရမည်အစီအစဉ် ရွှန်ပစ်ပစ္စည်း(လုပ်သားများရွှန်ပစ်ပစ္စည်းနှင့်စီမံခန့်ခွဲမှုထုတ်လွှတ်ပစ္စည်း)ကို မြို့အတင်ပေးသောအခါအစဉ်အတွင်း ကို ခန့်ခွဲပေးမိ ပျက်စီး သိမ်းဆည်းခံရခြင်း အန္တရာယ်ရှိပစ္စည်း (စက်ဆီအစားအပေး၊ လွှတ်ပစ်ပစ္စည်းအစားအပေး၊ သံထည်ပစ္စည်း) များကို သယ်ယူပို့ဆောင်ခြင်းကို သိမ်းဆည်းခံရခြင်း စက်ရုံတွင် အပိုင်ရွှန်ပစ်ရန် အတွက် အပိုင်ရွှန်ပစ်ရန် စီမံထားခြင်း စက်ရုံရွှန်ပစ်အစားအပေးကို ခန့်ခွဲထားမှု အပိုင်ရွှန်ပစ်ရန် တိုးတက်ပေးဆောင်ထားခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	<ul style="list-style-type: none"> မန်နေဂျာ - စက်ရုံအတွင်းသို့ရွှန်ပစ်ပစ္စည်းအပိုင်ရွှန်ပစ်ရန်စီမံခန့်ခွဲခြင်း အပိုင်ရွှန်ပစ်မှု ပြုပြင်လုပ်ငန်းနှင့် ရွှန်ပစ်ပစ္စည်းသယ်ယူပို့ဆောင်မှုကို ပြုပြင်လုပ်ငန်း ထာဝန်ပေးဆောင်သူတို့ရန်

စွန့်ပစ်အရည် ထိန်းသိမ်းရေး	
ရည်ရွယ်ချက်	ပြေငယ်ရေးနှင့် ပြေးအောက်ရေး ညစ်ညမ်းမှုမဖြစ်စေရေး
လိုက်နာရမည့်စည်းကမ်း	<ul style="list-style-type: none"> ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(လုပ်ငန်းပုံစံ) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံအခြေပြားများနှင့်ပိလ္လာစနစ်ကို နေ့စဉ်ကျ သန့်ရှင်းအောင်ထားရှိခြင်း၊ လုံလောက်သည့်အတိုင်းအတာ ဖောက်ဖျက်ခြင်း ပိလ္လာစနစ်ကို ပုံမှန်စစ်ဆေးပြီး လိုအပ်သကဲ့သို့ ထိန်းသိမ်းပြုပြင်ခြင်း စက်ရုံအခြေပြားအတွင်းတွင် ပိတ်ဆို့မှုမရှိစေရန်နှင့် အနံ့ဆိုးများထွက်စေရန်စီမံခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - စွန့်ပစ်အရည်အသွေးတိုင်းတာရန် (Third Party) မြင့်ညှိနိုင်စေရန်

စွမ်းအင်သုံးစွဲမှု ထိန်းသိမ်းရေး	
ရည်ရွယ်ချက်	လျှပ်စစ်သုံးစွဲမှုလျော့စေရန်နှင့် လုပ်ငန်းခွင်အတွင်း လျှပ်စစ်သုံးစွဲမှုကြောင့် အန္တရာယ်မရှိစေရန်
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံတွင်း လျှပ်စစ်သုံးစွဲမှုများအတွက် စွမ်းအင်လျော့ချနိုင်သည့် စက်ကိရိယာများထပ်ဆင့်ခြင်း အသုံးမပြုလျှင် စက်ကိရိယာများပိတ်ဆင်ထားခြင်း စွမ်းအင်အသုံးနှုန်းမှုအသေးစား Lighting စနစ်ထပ်ဆင့်ခြင်း စက်ပစ္စည်းနှင့် Lighting အသုံးပြုမှုကို စောင့်ကြည့်ထိန်းသိမ်းရေးစနစ်ထားရှိခြင်း (ဥပမာ-အသုံးမပြုဘဲမီးရှို့ထားခြင်း၊ စက်ရုံထွက်ခြင်းမျိုး မရှိစေရန်)
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ

ပြေအောက်ရေးသုံးစွဲမှု	
ရည်ရွယ်ချက်	ရေးသုံးစွဲမှုလျော့စေရေး
လိုက်နာရမည့်စည်းကမ်း	The Underground Water Act (1930)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> ရေးသုံးစွဲမှု သိရှိနိုင်သော မီတာထပ်ဆင့်ခြင်း ဝန်ထမ်းများအားအသိပညာပေးခြင်းနှင့် လိုက်နာဆောင်ရွက်ရန် တိုက်တွန်းခြင်း စက်ရုံတာဝန်ရှိပုဂ္ဂိုလ်များအား (Third Party) နေပြည်တော်ပြေအောက်ရေးအသုံးစွဲစည်းကမ်းချက်နှင့်အညီ လမ်းညွှန်ထားခြင်း
တာဝန်ယူရမည့် ပုဂ္ဂိုလ်	မန်နေဂျာ <ul style="list-style-type: none"> ရေး အသုံးပြုမှုတရား စစ်ဆေးခြင်း ဝန်ထမ်းများလိုက်နာဆောင်ရွက်မှု စစ်ဆေးခြင်း

အရေးပေါ် အခြေအနေတုန်းပြန်မှု	
ရည်ရွယ်ချက်	မတင်ပေးထားသော အန္တရာယ်
လိုက်နာရမည့်စည်းကမ်း	အလုပ်အကိုင်နှင့် ကျွမ်းကျင်မှု ဖွဲ့စည်းထုတ်ဝေရေး (၂၀၀၃)၊ ILO guide to Myanmar Labour Law (2017)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> အရေးပေါ် အခြေအနေတုန်းပြန်စာ (Fire, earthquake, explosion) တို့အတွက် စက်ရုံတွင် စီမံခန့်ခွဲမှုရှိခြင်း စက်ရုံ၏ပိတ်ဆို့စနစ်များကို ပုံမှန်စစ်ဆေးခြင်း ရေးသုံးစွဲမှုအသေးစား အရေးပေါ် ထိန်းသိမ်းရေး အစီအစဉ်များကို ဝန်ထမ်းများ အား သိစေခြင်း စက်ရုံအတွင်းတွင် အန္တရာယ် လျှော့ချနိုင်ရန်အတွက် အစီအစဉ်များကို အစီအစဉ်မရှိစေခြင်း ပုံမှန်အသေးစားအန္တရာယ်များ ထုတ်လုပ်ထိခိုက်ခြင်း ကြိုတင်ကာကွယ်မှုများ ဝေခွဲခြားရေးနှင့် အခြေအနေတုန်းပြန်စာ အစီအစဉ်များ ဖြစ်ပေါ်စေရန် လိုအပ်သည့် အခြေအနေတုန်းပြန်စာ အစီအစဉ်များ ဖြစ်ပေါ်စေရန် အရေးပေါ် ထုတ်ခွယ်ရေး စနစ်ပုံစံ၊ လိပ်စာများ အများအပြားဖြစ်သော အန္တရာယ်အတွက် တပ်ထားခြင်း စက်ရုံတွင် မီးသတ်ဆေး ဝယ် အန္တရာယ်ကင်းရှင်းရေး စောင့်ကြည့်ရေးအဖွဲ့ဝင်များထားရှိပြီး လစဉ် အစွမ်းထက်စစ်ဆေးခြင်း ဖြစ်ပေါ်စေရန်
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	<ul style="list-style-type: none"> Manager and EHS officer မီးသတ်ဆေးထိန်းများ ၃ ငါးထောင်ရှိပြီး လိုလမ်းပေးခြင်း အရေးပေါ် အခြေအနေတုန်း ပြန်စာ အစီအစဉ်များ ဖြစ်ပေါ်စေရန် စောင့်ကြည့်စစ်ဆေးခြင်း

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု

အမျိုးအမည်	ဆန္ဒထုတ်ပေးသူ	ကြိုတင်ချက်	ရက်စွဲ	အကျဉ်းချုပ်
ပတ်ဝန်းကျင်ထိခိုက်မှု				
အသံ	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	William (Myanmar) Industrial Company Limited
ဓာတ်	pH, temperature, arsenic, chloride, iron, phosphate, iron, sulphate, boron	တစ်နှစ် ၂ကြိမ်	အောက်တိုဘာ	William (Myanmar) Industrial Company Limited
ရေညှိမှု	ရေညှိမှု စနစ်	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	William (Myanmar) Industrial Company Limited
ဆိုင်ခန်းစီမံခန့်ခွဲမှု	ဆိုင်ခန်းစီမံခန့်ခွဲမှု	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	William (Myanmar) Industrial Company Limited
အောက်ဆောက်လုပ်ဆောင်ရွက်မှု	အောက်ဆောက်လုပ်ဆောင်ရွက်မှု	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	William (Myanmar) Industrial Company Limited
ပတ်ဝန်းကျင်ထိခိုက်မှု				
အသံ	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	William (Myanmar) Industrial Company Limited
ဓာတ်	pH, temperature, arsenic, chloride, iron, phosphate, iron, sulphate, boron	တစ်နှစ် ၂ကြိမ်	အောက်တိုဘာ	William (Myanmar) Industrial Company Limited
ရေညှိမှု	ရေညှိမှု စနစ်	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	William (Myanmar) Industrial Company Limited
ဆိုင်ခန်းစီမံခန့်ခွဲမှု	ဆိုင်ခန်းစီမံခန့်ခွဲမှု	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	William (Myanmar) Industrial Company Limited
အောက်ဆောက်လုပ်ဆောင်ရွက်မှု	အောက်ဆောက်လုပ်ဆောင်ရွက်မှု	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	William (Myanmar) Industrial Company Limited

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု ခန့်မှန်းကုန်ကျစရိတ်

အမျိုးအမည်	ဆန္ဒထုတ်ပေးသူ	ကြိုတင်ချက်	ရက်စွဲ	စရိတ်ခန့်မှန်းချက်
ပတ်ဝန်းကျင်ထိခိုက်မှု				
အသံ	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	800000
ဓာတ်	pH, temperature, arsenic, chloride, iron, phosphate, iron, sulphate, boron	တစ်နှစ် ၂ကြိမ်	အောက်တိုဘာ	300000
ရေညှိမှု	ရေညှိမှု စနစ်	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	200000
ဆိုင်ခန်းစီမံခန့်ခွဲမှု	ဆိုင်ခန်းစီမံခန့်ခွဲမှု	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	50000
ပတ်ဝန်းကျင်ထိခိုက်မှု				
အသံ	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	1000000
ဓာတ်	pH, temperature, arsenic, chloride, iron, phosphate, iron, sulphate, boron	တစ်နှစ် ၂ကြိမ်	အောက်တိုဘာ	300000
ရေညှိမှု	ရေညှိမှု စနစ်	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	200000
ဆိုင်ခန်းစီမံခန့်ခွဲမှု	ဆိုင်ခန်းစီမံခန့်ခွဲမှု	တစ်နှစ် ၂ကြိမ်	ဇူလိုင်လ	50000

လူမှုအကျိုးတူပူးပေါင်း ပါဝင်မှု

ကုန်ဆောင်မှု	ဝန်ထမ်းများ ကုန်ဆောင်မှု စောင့်ရှောက်မှု	၀.၅ %
ပညာရေး	ပညာရေးကဏ္ဍ မြှင့်တင်ရေးနှင့် လူ့အခွင့်အရေး အသိပညာပေးခြင်း	၀.၅ %
နယ်မြေ ဖွံ့ဖြိုးတိုးတက်ရေး	ဒေသတွင်း လိုအပ်သကဲ့သို့ လူမှုဖွံ့ဖြိုးခြင်း	၁ %

William (Myanmar) Industrial Company Limited တွင် CSR အတွက် အမြတ်ငွေ၏ ၂% ကို ကုန်ဆောင်မှု ပညာရေးနှင့် နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေးအတွက် အသုံးပြုသွားမည် ဖြစ်ပါသည်။

ဝက်ဘ်ဆိုက်လမ်းညွှန်ချက်များ

William (Myanmar) Industrial Company Limited
ဝန်ထမ်းများအတွက် သုံးစေ့ပြင်ဆင်ထားရှိမှု



စက်မှုပစ္စည်းများအတွက် သောက်သုံးရေကို မြှင့်ယူ ထိန်းသောက်သုံးစေပါသည်။



William (Myanmar) Industrial Company Limited ၏
လျှပ်စစ်သုံးစွဲမှု



William (Myanmar) Industrial Company Limited ၏ မီးဘေးအန္တရာယ်အတွက်ထားရှိမှုများ



ဝန်ထမ်းများအတွက် လေအေးပေးစက်များ ထားရှိမှု အခြေအနေ

