SAKURA GARMENT CO., LTD.

Environmental Management Plan

Manufacturing of Garment

Prepared by

Myanwei Environmental Solutions Co., Ltd.

19-Sep-22

No, 49 (B), Inya Yeik Thar Street, Mayangone Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 95185776, Mobile: (+95) 9421137569; Website: www.myanweiconsulting .com

Commitment and Acknowledgement

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

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

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

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

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED
No.....
Date.....

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

SAKURA Garment Co.,Ltd.
No. 74, Phun Chet Wun U Shwe Owe Street, Industrial Zone (3), City of Industry, Hlaing Tharyar Tsp, Yangon, Myanmar.
Tel : 95-1-684 582 / 685 641 Fax : 95-1-684 590 E-mail : sakura.garment@mptmail.net.mm

ကတိကဝတ်

ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်တွင် ပါရှိသည့် ပတ်ဝန်းကျင် လျော့ပါးစေရေး လုပ်ငန်းများနှင့် စောင့်ကြပ်ကြည့်ရှုရေး လုပ်ငန်းများကို လုပ်ငန်းပိုင်ရှင်မှ အကောင်အထည်ဖော်မည် ဖြစ်ကြောင်း Sakura Garment Company Limited မှ အတည်ပြုဝန်ခံ လက်မှတ်ရေးထိုးပါသည်။

- ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်သည် တိကျခိုင်မာကြောင်းနှင့် ပြည့်စုံကြောင်း၊
- ဤ လုပ်ထုံးလုပ်နည်းအပါအဝင် သက်ဆိုင်ရာဥပဒေများကို တိကျစွာ လိုက်နာ၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် ကိုရေးဆွဲထားကြောင်း၊
- စီမံကိန်းသည် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်ပါ ကတိကဝတ်၊ ပတ်ဝန်းကျင်ထိခိုက်မှု လျော့ချရေး လုပ်ငန်းများ နှင့် အစီအစဉ်များကို အပြည့်အဝ အစဉ်အမြဲ လိုက်နာဆောင်ရွက်မည်ဖြစ်ကြောင်း၊
- လုပ်ငန်းလည်ပတ်ဆောင်ရွက်နေသည့် ကာလအတွင်းအတည်ပြုထားသည့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ် အား တိုးတက်နေသည့် နည်းပညာများ စနစ်များနှင့် လုပ်ငန်းလိုအပ်ချက်အပေါ် မူတည်၍ ပိုမိုကောင်းမွန်သည့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ် ဖြစ်စေရန်အတွက် ပြင်ဆင်ဖြည့် စွက်ရန် ညွှန်ကြားချက်ရှိလာပါက ဆောင်ရွက်မည်ဖြစ်ကြောင်း နှင့် လုပ်ငန်းဆောင်ရွက် သူမှ ပြင်ဆင်ဆောင်ရွက်မည်ဖြစ်ကြောင်း၊
- စက်ရုံ ပိတ်သိမ်းမည်ဆိုပါက ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာများ မထိခိုက်စေရန် အစီအစဉ်များ ချမှတ်ဆောင်ရွက်မည် ဖြစ်ကြောင်း၊

Chaw Su Hlaing
Deputy General Manager
Sakura Garment Co., Ltd.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Abbreviations

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	= Word Health Organization
20.	YCDC	= Yangon City Development Committee
21.	YESB	= Yangon City Electricity Supply Board

အစီရင်ခံစာအကျဉ်းချုပ်

(Sakura Garment Co., Ltd.) အထည်ချုပ်စက်ရုံသည် မြေတိုင်းရပ်ကွက်အမှတ် လှိုင်သာယာဇုန်(၃)၊ မြေကွက်အမှတ် (၇၄)၊ ပန်ချက်ဝန်ဦးရွှေအိုးလမ်း၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် တည်ရှိသည်။ အဆိုပြုစီမံကိန်းသည် (၁၀၀%) နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှုဖြစ်ပါသည်။ အဆိုပါစက်ရုံသည် အမျိုးသားဝတ်၊ အမျိုးသမီးဝတ်၊ ကလေးဝတ် အထည်အမျိုးမျိုးကို CMP စနစ်ဖြင့်ချုပ်လုပ်၍ ပြည်ပသို့တင်ပို့ခြင်းလုပ်ငန်းဖြစ်ပါသည်။ စီမံကိန်းဧရိယာသည် ၁.၈၂၆ ဧက ကျယ်ဝန်း၍ (၂၃၆ × ၁၁၈ ပေ) ပင်မအဆောက်အအုံတစ်လုံးနှင့် (၂၄၀ × ၅၀ ပေ) ကုန်ပစ္စည်း သိုလှောင်ရုံပါဝင်ပါသည်။

Sakura Garment Co., Ltd. သည် CMP စနစ်ဖြင့် အဝတ်အထည်အမျိုးမျိုးထုတ်လုပ်သည့် လုပ်ငန်းကို Japan နိုင်ငံမှ ရင်းနှီးမြှုပ်နှံသည့် လုပ်ငန်းဖြစ်ပါသည်။ ရင်းနှီးမြှုပ်နှံမှုလိုင်စင်ကို ၁၅ ရက်၊ အောက်တိုဘာလ၊ ၁၉၉၆ ခုနှစ်တွင် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်မှ အတည်ပြုမိန့်အမှတ် (၂၁၉/၉၆) ဖြင့်ရရှိပြီးဖြစ်ပါသည်။

မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်ခွင့်ပြုမိန့်၏ ပုဒ်မ ၁၉ အရ Sakura Garment Co., Ltd. သည် စီမံကိန်း နှင့် စီမံကိန်းပတ်ဝန်းကျင်ဆိုင်ရာ ကာကွယ်မှုများကို ဆောင်ရွက်ရပါမည်။ ထို့အပြင် သယံဇာတနှင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဝန်ကြီးဌာန လက်အောက်ရှိ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ လမ်းညွှန်ချက်အရ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အားဆောင်ရွက်ရမည် ဖြစ်ပါသည်။ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ ပေါ်လစီများ၊ ဥပဒေများ၊ နည်းဥပဒေများ နှင့် လုပ်ထုံးလုပ်နည်းများ အရ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အားဆောင်ရွက်ခြင်း၊ ပြင်ဆင်ခြင်း၊ တင်ပြခြင်းများလုပ်ဆောင်ရပါသည်။ Sakura Garment Co., Ltd.၏ အထည်ချုပ်စက်အတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်ကို Myanwei Environmental Solutions Co., Ltd. မှ စက်တင်ဘာ ၁၃ရက်၊ ၂၀၁၈ မှ စတင်ဆောင်ရွက်ပေးခဲ့ပါသည်။

လက်ရှိပတ်ဝန်းကျင်အနေအထားကို အကဲဖြတ်ရန် စက်တင်ဘာလ ၂၀၁၈ တွင် စက်ရုံသို့ ကွင်းဆင်းဆောင်ရွက်ခဲ့ပါသည်။ စီမံကိန်းဆိုင်ရာ အခြေခံစစ်တမ်းများ ကောက်ယူမှုကို စီမံကိန်း လည်ပတ်စဉ်အတွင်းတွင် ဆောင်ရွက်ခဲ့ပါသည်။ စစ်တမ်းကောက်ယူသည့် အဖွဲ့တွင် အကြံပေးပုဂ္ဂိုလ်များ၊ ပတ်ဝန်းကျင်အရည်အသွေးဆန်းစစ်သူများ ပါဝင်ပါသည်။ အခြေခံ ပတ်ဝန်းကျင်ဆိုင်ရာ စစ်တမ်းများကောက်ယူမှုကို အောက်ပါအတိုင်းခွဲခြား၍ ကောက်ယူခဲ့ပါသည်။ စက်ရုံ၏ ကုန်ထုတ်လုပ်သည့်နေရာတွင် လေထုအရေအသွေး၊ အသံဆူညံမှု၊ အလင်းရောင်ရရှိမှု အခြေအနေများကို တိုင်းတာခဲ့ပါသည်။

အမျိုးအစား	တိုင်းတာမှု
လေအရည်အသွေး	PM10 and PM2.5
ဆူညံမှု	စက်ရုံတွင်း ဆူညံသံ (LAeq)
အလင်းရောင်ရရှိမှု	အလင်းရောင်ရရှိမှု အခြေအနေ (Lux)

တိုင်းတာမှု ရလဒ်များအရ PM10 သည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ၏ သတ်မှတ် စံချိန်၊ စံညွှန်းများအောက်တွင်ရှိသည်ကို တွေ့ရှိရပါသည်။ PM 2.5 သည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ၏ သတ်မှတ် စံချိန်၊ စံညွှန်းများထက် အနည်းငယ် ကျော်လွန်နေပါသည်။ ကုန်ထုတ်လုပ်မှု ဧရိယာရှိ အသံဆူညံမှုသည်လည်း အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ၏ သတ်မှတ် စံချိန်၊ စံညွှန်းများအောက်တွင်ရှိသည်ကို တွေ့ရှိရပါသည်။ လုပ်ငန်းခွင်အတွင်းအလင်းရောင်ရရှိမှု အခြေအနေသည်လည်း သတ်မှတ် စံချိန်၊ စံညွှန်းများအောက်တွင်ရှိသည်ကို တွေ့ရှိခဲ့ရပါသည်။

လူမှုစီးပွားအခြေအနေ၊ ရုပ်ပတ်ဝန်းကျင်နှင့် ဇီဝပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များ၊ ရာသီဥတုအခြေအနေစသည့် လှိုင်သာယာမြို့နယ်ဆိုင်ရာ အစိုးရဌာနမှ တင်ပြထားသည့် အချက်အလက်များမှ ရယူ၍ ထည့်သွင်းထားပါသည်။ အဆိုပြုစီမံကိန်းမြေသည် စက်မှုဇုန်ဧရိယာအတွင်းတွင်တည်ရှိပါသည်။ စီမံကိန်းအနီးတွင် လှိုင်မြစ်တည်ရှိ၍ ၁ မိတာ ကွာဝေးပါသည်။ ၂၀၁၉ခုနှစ် စစ်တမ်းအရ လှိုင်သာယာမြို့နယ်၏ လူဦးရေမှာ ၄၄၀၉၄၉ ဖြစ်ပါသည်။

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

အုပ်စုများ	သက်ရောက်မှု အရင်းအမြစ်	လျော့ချရေးနည်းလမ်းများ
လေအရည်အသွေး	ကုန်ကြမ်းပစ္စည်းများ၊ ကုန်ချောပစ္စည်းများသယ်ဆောင်သော ယာဉ်များမှ ဖုန်မှုန့်များ၊ ဖန်လုံအိမ်အာနိသင်ဖြစ်စေသော	လေညစ်ညမ်းမှုများကိုထိန်းချုပ်ခြင်း၊ ယာဉ်များ၊ မီးစက်များ၊ စက်ပစ္စည်းများကို ပုံမှန်စစ်ဆေးခြင်း။ စက်ရုံမှ ဘွိုင်လာရေနွေးငွေ့နှင့် မီးစက်များမှ ဓာတ်ငွေ့များထုတ်ရန် မီးခိုးခေါင်းတိုင်တပ်ဆင်ခြင်း နှင့် ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့နည်းစေရန် မီးခိုးများကို စစ်၍ ထုတ်လွှတ်စေခြင်း ယာဉ်များ၊ ကွန်ပရက်ဆာ၊ မီးစက်များကို

	ဓာတ်ငွေ့များထွက်ရှိခြင်း ရေနွေးငွေ့သုံးဘွိုင်လာမှ အခိုးအငွေ့များထွက်ခြင်း အရေးပေါ်မီးစက်များနှင့် ယာဉ်အသွားအလာမှ ထွက်သော မီးခိုးများ	ကောင်းမွန်စွာထိန်းသိမ်းခြင်း
ရေအရည်အသွေး	ထုတ်လုပ်ရေးလုပ်ငန်းများ	ထိခိုက်မှုလျော့ချရန်မလိုပါ။
မြေအရည်အသွေး	အင်ဂျင်ဆီများ၊ ဒီဇယ်ဆီများသိုလှောင်ခြင်းနှင့် ဖိတ်ယိုခြင်း	ထိခိုက်မှုလျော့ချရန်မလိုပါ။
ဆူညံသံနှင့် တုန်ခါမှု	ကုန်ပစ္စည်းထုတ်လုပ်သည့် လုပ်ငန်းများမှ စက်ပစ္စည်းများမှ ဆူညံသံများထွက်ခြင်း	ထိခိုက်မှုလျော့ချရန်မလိုပါ။
ကုန်းနေ အပင်နှင့် သတ္တဝါများ၊ ရေနေသတ္တဝါများ	အထည်ချုပ်လုပ်ငန်းလုပ်ဆောင်ခြင်း	ထိခိုက်မှုလျော့ချရန်မလိုပါ။
မီးဘေးအန္တရာယ်	လျှပ်စစ်တပ်ဆင်ရာတွင် စနစ်တကျတပ်ဆင်မှုမရှိခြင်း ကုန်ကြမ်းပစ္စည်းစွန့်ပစ်ခြင်း၊ ဓာတုပစ္စည်းသိုလှောင်ခြင်း။	စက်ရုံ၏မီးဘေးအန္တရာယ်ကာကွယ်ရန်အတွက် မီးသတ်ပူး၊ မီးသတ်ပိုက်၊ မီးသတ်ခေါင်း များထားရှိခြင်း။ မီးသတ်ဆိုင်ရာစက်ပစ္စည်းကိရိယာများကိုပုံမှန်စစ်ဆေးခြင်း၊အရေးပေါ်အခြေနေအတွက် မီးသတ်ရေကန်အဆင်သင့်ထားရှိခြင်း။ စက်ရုံအတွင်းအရေးပေါ်အချက်ပေးစနစ်များထားရှိခြင်း။ အရေးပေါ်ထွက်ပေါက်များတွင်တစ်လျှောက်တွင် ကုန်ပစ္စည်းများပိတ်ဆိုခြင်းမရှိအောင်ရှင်းလင်းထားရှိခြင်း။

လုပ်ငန်းခွင်ဘေးအန္တရာယ်	စက်ပစ္စည်းများလည်ပတ်ခြင်းကြောင့် မတော်တဆထိခိုက်မှုများဖြစ်ပေါ်နိုင်ခြင်း။ ပစ္စည်းတင်ချပြုလုပ်ခြင်း၊ ဖြတ်တောက်ခြင်း၊ ရောနှောခြင်း၊ ဖိနှိပ်ခြင်း၊ ထုတ်ပိုးခြင်း။ ရေနွေးငွေ့သုံးမီးပူများကြောင့် မတော်တဆထိခိုက်မှုများဖြစ်ပေါ်နိုင်ခြင်း။	အရေးပေါ်အခြေအနေများအတွက် စက်ပစ္စည်းကိုင်တွယ်မှုသင်တန်းပေးခြင်း၊ ကြက်ခြေနီသင်တန်းပေးခြင်း၊ မီးသတ်သင်တန်းပေးခြင်း။ လုပ်ငန်းခွင်တွင်း အလုပ်သမားများ အလင်းရောင်ကောင်စွာရရှိစေရန်နှင့် အမြင်အာရုံမထိခိုက်စေရန် အလင်းရောင်များကို လုံလောက်စွာထားရှိခြင်း။ အလုပ်သမားများအတွက်တစ်ကိုယ်ရေကာကွယ်ရေးသုံးပစ္စည်းများဖြစ်သည့် နားကြပ်၊ လက်အိတ်၊ ဦးထုတ်၊ မျက်မှန် များ အသုံးပြုစေခြင်း။ လျှပ်စစ်အန္တရာယ်မဖြစ်စေရန် နှင့် ပြုပြင်ထိန်းသိမ်းမှုများ ပြုလုပ်ရန်အတွက် ဝန်ထမ်းထားရှိ၍ ပုံမှန်စစ်ဆေးခြင်း။
ကျန်းမာရေး	အရေးပေါ် မီးစက်များမှ ဆူညံသံများထွက်ပေါ်လာခြင်း။	လုပ်သားများအတွက်ကျန်းမာရေးမထိခိုက်စေရန် ရေမြောင်းများကိုစနစ်တကျထားရှိခြင်း။ လုပ်သားများအတွက် ရှစ်နာရီအတွင်းလက်ခံနိုင်သည့်အာမြင့်ဆုံး ဆူညံမှု နှုန်းမှာ 90dB(A) ဖြစ်သည်။ အသံဆူညံမှုအမြင့်ဆုံးနေရာများတွင် နားကြပ်များ တပ်ဆင်စေခြင်း။
စွန့်ပစ်အစိုင်အခဲများ	ကုန်ထုတ်လုပ်သည့်နေရာမှ ထွက်ရှိသော ပိတ်အပိုင်းအစများ။ ကုန်ပစ္စည်းထုတ်ပိုးခြင်းမှထွက် ရှိသော အပိုင်းအစများ။ မီးဖိုချောင် လူနေဆောင်ရုံးခန်းမှတွက်ရှိသောအမှိုက်	စက်ရုံအတွင်း အမှိုက်ပုံးများထားရှိခြင်း။ သတ်မှတ်ထားသောနေရာတွင် အမှိုက်စို၊ အမှိုက်ခြောက်များခွဲခြားစွန့်ပစ်ခြင်း။ အမှိုက်များကို ရန်ကုန်စည်ပင်သာယာရေးကော်မတီနှင့် ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။
စွန့်ပစ်အရည်	မိလ္လာစနစ်ထားရှိခြင်း။	ဆီကန်၊ မိလ္လာကန်များ ကိုပုံမှန်စစ်ဆေးခြင်း၊ သန့်စင်ခြင်းများပြုလုပ်ခြင်းဖြင့် စွန့်ပစ်အရည်များ

	ရုံးခန်း၊ မီးဖိုချောင်နှင့် လူနေဆောင်များမှ စွန့်ပစ်အရည်များတွက်ရှိခြင်း။	စိမ့်ဝင်မှုများကိုလျော့ကျစေနိုင်ခြင်း။
အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများ	မော်တော်ယာဉ်များ စက်ပစ္စည်းများ ပြုပြင်ထိန်းသိမ်းခြင်းမှ ဆီများတွက်ရှိခြင်း။	အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများသိုလှောင်မှု အားထိန်းသိမ်းခြင်း စစ်ဆေးခြင်း။ လုပ်ငန်းခွင်ကျန်းမာရေး လုံခြုံမှုနှင့်ပတ်ဝန်းကျင်ဆိုင်ရာ လိုအပ်ချက်များ နှင့်ကိုက်ညီမှုရှိစေရန် ဓာတုပစ္စည်းများကို စနစ်တကျစွန့်ပစ်ခြင်း။ ဓာတုပစ္စည်းသိုလှောင်သည့် ပုံးခွန်များကို စနစ်တကျပြန်လည်အသုံးပြုခြင်း (သို့မဟုတ်) စနစ်တကျစွန့်ပစ်ခြင်း။ အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်မြို့တော်စည်ပင်သာယာရေး ကော်မတီ (သို့မဟုတ်) လိုင်စင်ရ အမှိုက်စွန့်ပစ်ရေးဆိုင်ရာအဖွဲ့အစည်းများ (ဥပမာ DOWA (သို့) YCDC နှင့်ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။

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

စီမံကိန်းဖော်ဆောင်သည့်အချိန်အတွင်း ပတ်ဝန်းကျင်အပေါ်သက်ရောက်မှုများ၊ လျော့ချရေးနည်းလမ်းများ၊ အစီအစဉ်များ၊ တိုင်းတာမှုများ စသည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်များကို လုပ်ဆောင်ရပါသည်။ Sakura Garment Co., Ltd. မှ စက်ရုံတွင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် အဖွဲ့အစည်းဖွဲ့စည်းခြင်း၊ ပုံမှန်ဆန်းစစ်လေ့လာခြင်းများ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ ပတ်ဝန်းကျင် လေထုအရည်အသွေး၊ မိလ္လာစနစ်၊ စွန့်ပစ်အစိုင်အခဲ စွန့်ပစ်မှုများကို စက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်

အဖွဲ့အစည်းမှ ဆန်းစစ်သွားမည်ဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်းမှ လူထုအကျိုးပြုလုပ်ငန်းများ နှင့် အရေးပေါ်ဆောင်ရွက်ချက်များ၊ ဒေသဆိုင်ရာ အကျိုးပြုလုပ်ငန်းများကို လုပ်ဆောင်သွားမည်ဖြစ်ပါသည်။

စီမံကိန်းသည် သာဓုကန်စက်မှုဇုန်၊ ရွှေပြည်သာမြို့နယ်တွင်တည်ရှိသည်။ စီမံကိန်းကြောင့် ပတ်ဝန်းကျင်အပေါ်သက်ရောက်မှုများမရှိပါ။ စီမံကိန်းဆိုင်ရာ သတင်းအချက်အလက်များ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်များကို အောက်ပါ ဝပ်ဆိုက်များမှတစ်ဆင့် လေ့လာနိုင်ပါသည်။

Myanwei website www.myanweiconsulting.com

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

EXECUTIVE SUMMARY

Sakura Garment factory is located at Plot No. 74, Phen Chet Wun U Shwe Owe Street, Hlaing Tharyar Industrial Zone (3), Hlaing Tharyar Township, Yangon region. The purpose of the investment is to manufacture various kinds of labor dress through Cutting-Making-Packaging (CMP) System and to export the products fully. The project utilizes 1.826 acre of land and consist of main factory and warehouse of which is comprised by two buildings included one story RC production building (236' × 118') and one-story RC warehouse building (240" × 50') at project site.

Sakura Garment Co., Ltd. is an investment for manufacturing of Garment (CMP basic) company from Japan. The project approved for the investment permit from the Myanmar Investment Commission (MIC) Permit No. 219/96) on 15, October 1996**.**

According to the MIC permit, which confidential was issued in Section 19, Sakura garment factory shall responsible for the preservation of the environment and around the area of the project site. In addition to this, it shall carry out as per instructions made by Ministry of the Natural Resources and Environmental Conservation (MONREC) under Environmental Conservation Department (ECD) in which to conduct an Environmental Management Plan (EMP). It has to prepare, submit, perform activities in accordance with this EMP, and abide by the environmental policy, Environmental Conservation Law and other environmental related rules and procedures. EMP for garment factory to be implemented by Sakura Garment Co., Ltd. has been started by Myanwei Environmental Solutions Co., Ltd. (Myanwei) in 13 September, 2018.

To determine the existing baseline environmental quality within the project site on September 2018. On-site measurement includes indoor air quality, noise level and operation light condition at the factory.

Item	Parameter
Air quality	PM10 and PM2.5
Noise level	Indoor sound level (LAeq)
Light Level	Industry light condition (Lux)

The contents of particulate matter (PM_{10}, $PM_{2.5}$) are within the National Environmental Quality (Emission) Guideline. Noise in the workshop area is acceptable when compared with National Environmental Quality (Emission) Guideline. The result of light measurement at operation area (inside the production sector) is good condition to the acceptable level of standard.

Moreover, secondary data collection of proposed project site area such as socio-economic condition, physical/ biological environment, weather data where be received from official township data was reference by Regional Data of Hlaing Tharyar Township. The field observation for determining the environmental baseline of the proposed project area was undertaken during operation period. The survey team consists of the senior consultant and environmental quality team. The baseline data collected regarding the environmental condition of the project area was conducted in the following section. The proposed project site is primarily agricultural land, but now is initiated into the industrial zone area. The nearest sensitive water body is about 2 km far from the Pan Hlaing River and about 3 km from Pan Hlaing river. In 2017, there are about people 414,209 in Hlaing Tharyar Township.

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:

Categories	Source of Impact	Mitigation Measure
Air	• Dust and GHGs emission from vehicles used for transporting raw materials and final products • Emission of smoke from steam boiler • Emission from emergency diesel generator and vehicle movement	• To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. • The factory uses chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. • Ensuring vehicles, compressor and generator are well maintained.
Water	• Production process	• No Mitigation Measure
Soil	• Engine oil leaks, spills at diesel storage and during fuel refueling.	• No Mitigation Measure
Noise and Vibration	• Generating noise from the production machinery	• No Mitigation Measure
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, mixing, cutting, pressing and packaging activities. • Accidental cases of thermic fluid heater	• First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. • According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. • Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and

Categories	Source of Impact	Mitigation Measure
		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 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
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 YCDC's service.
Liquid Waste	• Septic system and sewage. • Domestic liquid waste disposal from office, kitchen and dormitory.	• Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Waste	• Used oil and lubricant discharged from the maintenance of vehicles and machines.	• Proper inspection and maintenance in storage of hazardous waste. • Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. • The empty chemical containers will hand over to suppliers for recycle or appropriate disposal • The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (eg., DOWA and YCDC)

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

The Environmental Management Plan (EMP) formulated with the anticipated impacts, mitigation measures, management and monitoring plans during all phases are implemented. Sakura Garment Co., Ltd. has organized Environmental Management Team to accomplish these plans and to review EMP regularly for improvements and modifications. Ambient air quality, noise, water quality, sewage and solid waste disposal are monitored by Team Leaders of Committee. The project proponent has performed Corporate Social Responsibility (CSR) plan and Emergency Preparedness for the benefits of residents and local community.

The project is located in Hlaing Tharyar Industrial Zone 3, Hlaing Tharyar Township and there are no local people affected by project. The project information and this EMP will be accessible to public and stakeholders via

Myanwei website www.myanweiconsulting.com

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

1. INTRODUCTION

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

1.1. PROJECT BACKGROUND

Sakura Garment Co., Ltd. is an investment for manufacturing of Garment (CMP basic) company from Japan. The project approved for the investment permit from the Myanmar Investment Commission (MIC) Permit No. 219/96) on 15, October 1996**.**

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), they said project requires an Environmental Management Plan (EMP) to meet the environmental assessment requirements of Notification No. YaKa-1/3/4 (EIA) (1594/2018) on 19, November 2018. Therefore, Sakura Garment Co., Ltd. commissioned Myanwei Environmental Solutions Co., Ltd. (Myanwei) for EMP report study.

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

1.1.1. Project Proponent Profile

This is the information of proponent from the registration of MIC permit No. 219/96 on 15, October 1996, which is described in below Table 1-1. The estimated authorized capital investment is about 6,000,000 US Dollar (Table 1-1).

Table 1-1 Salient Features of the Project

Type of Proposed Business	Manufacture of Garment (CMP)
Type of investment	100% foreign investment
Type of Share	Ordinary Share
Type of land	Industrial Land

Total land area	1.826 acres
Total building area	(236' × 118') Main production building (240' × 50') Warehouse building
Address of Sakura Garment factory	Plot No. 74, Phen Chet Wun U Shwe Owe Street, Hlaing Tharyar Industrial Zone (3), Hlaing Tharyar Township, Yangon region.
Contact person	Chaw Su Hlaing Deputy General Manager Ph: 01 3685641

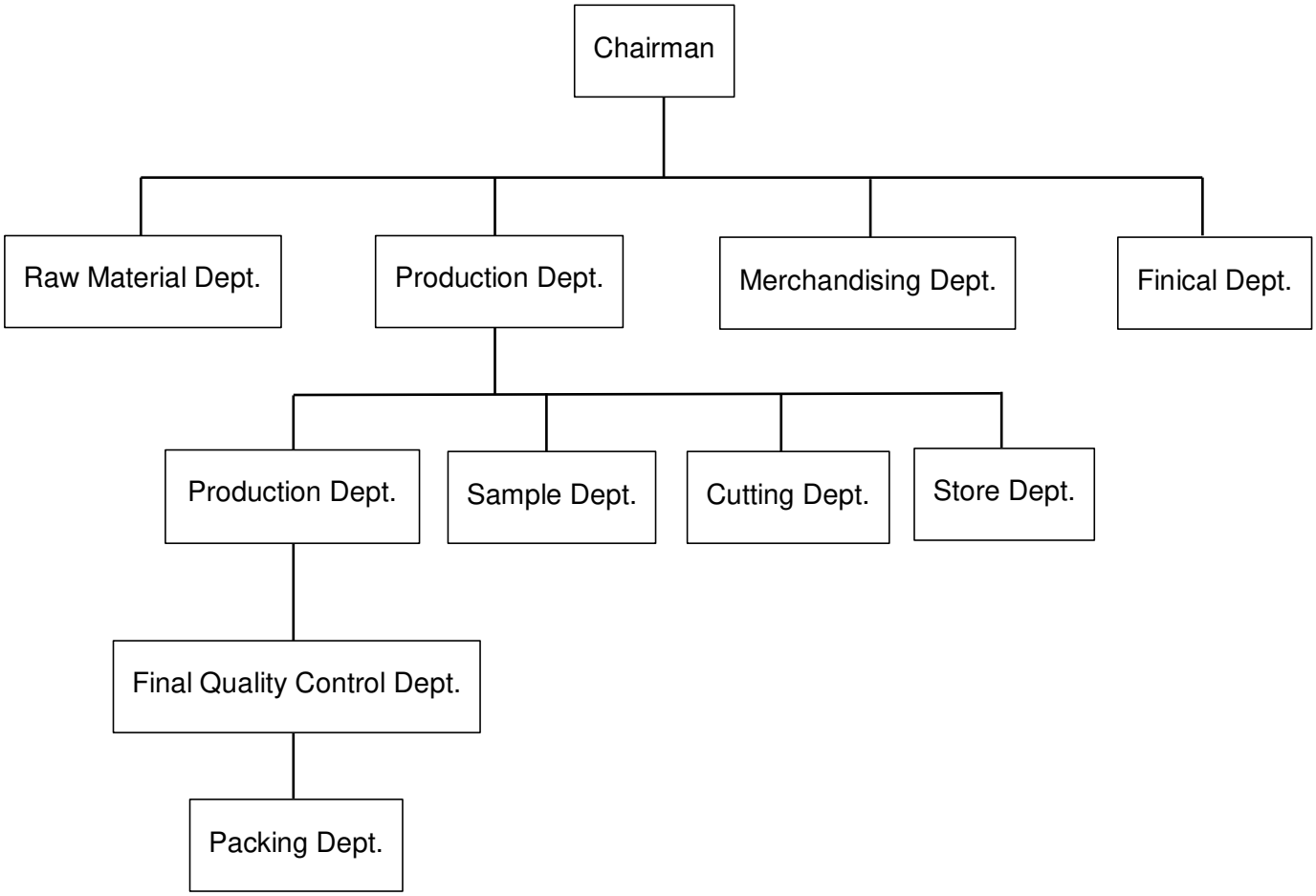


Figure 1-1 Organization Chart of Sakura Garment Co., Ltd.

1.1.2. Environmental Consultant Profile

Myanwei Environmental Solutions Company Limited prepares the EMP for the proposed project. The field studies were carried out by MYANWEI having experiences in conducting environmental assessments for various types of projects in Myanmar. The MYANWEI team conducted field survey, assessment activities, and prepared the report. A reconnaissance study was performed on the proposed project site and baseline environmental data were also collected from possible sources using the appropriate measuring devices. Data interpretation and analysis were made based on those collected data for the present and potential future conditions. Suitable measures

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

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

Table 1-2 Member of EMP Study Team

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

Mr. Myat Ko Ko	B.Sc (Hons) Geology M.Sc. Geology (Economic and Mining) Certificate of Environment Management Certificate of Geotechnical Engineering (Myanmar Geoscience Society)	Junior Environmental Consultant, monitoring measure, document administration
Mr. Htoo Nanda Aung	B.Sc (Forestry)	Junior Environmental Consultant, monitoring measure, document administration
Mr. Si Yan Hein	B.Sc (Geology) Certificate of Geotechnical Engineering (Myanmar Geoscience Society)	Junior Environmental Consultant, monitoring measure, document administration
Mr. Kaung Sett Lwin	B.Sc (Hons) Geology Certificate of Geotechnical Engineering (Myanmar Geoscience Society)	Junior Environmental Consultant, monitoring measure, document administration

1.2. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

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

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

1.2.1. **This EMP Documents Aims**

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

2. POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

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

2.1. MYANMAR REGULATORY FRAMWORK

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

2.1.1. Laws and Regulations Related to Environmental and Social Considerations

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

Table 2-1 List of Myanmar's Law Relating to Environmental Management

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

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

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

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

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

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

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

Rule18	The relevant government department or organization shall obtain the opinion of the Fire Services Department for the purpose of fire precaution and prevention, when laying down plans for construction for town, village and downtown or village development plans
The Electricity Law (2014)	
In 2014, the new Electricity Law, a comprehensive piece of legislation covering licensing, a new regulatory commission, standards, inspection, tariff, and restrictions, replaced the Electricity Law of 1984. The Electricity Law divides projects into “small” (up to 10 MW), “medium” (between 10 MW to 30 MW) and large (upwards of 30 MW); the states and regions can issue permits for small and medium power plants. In case these plants are not connected to the national grid, the Union Government Ministry is not the primary authority involved. The authorities have a legal right to use land for the purpose of power plants under the Electricity Law, and have the right to expand and maintain their facilities. The law also provides that the authorities can build transmission lines in accordance with existing laws.	
Boiler Law (2015)	
Chapter (2) Objective	The objectives of this law are as follows: (a) To obtain boilers in compliance with Myanmar Standards or International Standards (b) To prevent the country and citizens from hazards caused by boiler accidents (c) To use boilers in compliance with Myanmar Standards or International Standards within the country (d) To develop boiler technology and to produce experts capable of manufacturing, handling, repair, and maintenance of boilers (e) To optimize the use of boilers through effective utilization of fuel energy (f) To reduce the environmental, social and health impacts through long-lasting use of boilers.
Chapter (3) 4. With the permission of the Ministry, the inspector general can:	Notify the inspection methods and instructions according to the national or international standards for safe operations of boilers in line with this law, procedures and instructions Only the results obtained from the prescribed boiler standards and inspection methods will be approved.
Chapter (4). Boiler Registration	5. Anybody who would like to use a boiler in any kind of business should be registered. 6. Boiler should be manufactured according to Myanmar Standards or International Standards. 7. Those who would like to apply for boiler registration according to Section 5 should apply to the inspector with the application, documents and vouchers related to boiler 8. If the application regarding registration of boiler according to Section 7, the Registration Officer should conduct necessary inspection and submit results of the findings to the Inspector General. 9. The Inspector General should assess and inspect the submission of the Registration Officer according to Section 8 and could allow or reject for registration of the boiler. 10. The Inspector General shall define boiler size according to heated surface area in accordance with adopted procedures.
Chapter (13) Prohibitions	59. According to Section 21, nobody must alter, change, deface, deform or make embossed registration unnoticeable illegitimately. 60. Nobody is allowed to repair a boiler without boiler repair certificate. 61. Nobody is allowed to maintain a boiler without boiler maintenance certificate. 62. Nobody must alter safety relief valve in order to exceed the allowable

	pressure due to his consent or direction given by the owner. 63. Nobody must manufacture boilers against Section 25, Subsection 25 (a) and (b) enacted.
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
The Pyidaungsu Hluttaw hereby enacts this Law for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly.	
The Social Security Law (2012)	
The Social Security Law, enacted in 2012, was amended the Social Security Act in 1954. It stipulates the formation and implementation of social security systems.	
Section 53(a)	The employers and workers shall co-ordinate with the Social Security Board or insurance agency in respect of keeping plans for safety and health in order to prevent employment injury, contracting disease and decease owing to occupation and in addition to safety and educational work of the workers and accident at the establishment;
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
This law was enacted for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. It stipulates that employer in which more than 30 workers are employed shall form the workplace coordinating committee consisting of the representatives of workers and the representatives of employer.	
Section 23	A party, employer or worker, may complain individual dispute relating to his grievance to the Conciliation Body and if he is not satisfied with the conciliation of such body in accord with stipulated manners, may apply to the competent court in person or by the legal representative.
Section 24	The relevant Conciliation Body shall, in respect of the collective dispute known or received by the complaint of either party, employer or worker, in respect of the dispute; information sent by the Minister or the Region or State Government or any other means, carry out as follows: (a) conciliating so as to be settled within three days, not including the official holidays, from the day of knowing or receipt of such dispute; (b) concluding mutual agreement if the settlement is reached in conciliating under sub-section (a), before the Conciliation Body.
Section 25	The Conciliation Body shall refer the collective dispute which does not reach settlement to the relevant Arbitration Body and inform the persons relating to the dispute.
Section 38	No employer shall fail to negotiate and coordinate in respect of the complaint within the prescribed period without sufficient cause.
Section 39	No employer shall alter the conditions of service relating to workers concerned in such dispute at the consecutive period before commencing the dispute within the period under investigation of the dispute before the Arbitration Body or Tribunal, to affect the interest of such workers immediately.
Section 40	The project proponent has to not close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal
Section 51	The project proponent has to pay the compensation decided by Tribunal f violates any act or any emission to omission to damage the interest of labour by reducing of product without efficient cause.
Section 46	Any employer who violates any prohibition contained in sections 38 and 39 shall, on conviction, be punished with a fine for a minimum of one-lakh kyats.

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

	sanitation measures; - Indoor, outdoor sanitation or inside the fence outside the fence sanitation; Well, ponds and drainage sanitation; Proper disposal refuse and destruction there of by fire; Construction and use of sanitary latrines; Other necessary environmental sanitation measures.
Occupational Safety and Health Law (2019)	
Purpose:	To effectively implement measures related to safety and health in every industry and to set occupational safety and health standards;
Section-26 Sub-section (e)	The project proponent has to provide adequate and relevant personal protective equipment to workers free of charge and make them wear it during work so as not to expose workers to any serious occupational diseases or hazards.
Section-26 Sub-section (1)	The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards.
Section-30 Sub-section (a)	The worker shall wear or use at all times any protective clothes, equipment and tools provided by the employer for the purpose of safety and health.
Section-30 Sub-section (d)	The worker shall proper and systematic use any equipment and tools, machines, any parts of the machines, vehicles, electricity and other substances being used at the workplace.
Section-30 Sub-section (e)	The worker shall take reasonable care for the safety and health of himself/ herself and of other persons who may be affected by his/ her acts or omissions at work.
The law on Standardization	
Objectives	The Objectives of this Law are as follows: to enable to determine Myanmar Standard to enable to support export promotion by enhancing quality of production organizations and their product, production processes and services to enable to protect the consumers and user by guaranteeing imports and products are not lower than prescribed standard, and safe from health hazards to enable to support protection of environment related to products, production process and services from impact, and conservation of natural resources to enable to protect manufacturing, distributing and importing the disqualified goods which do not meet the prescribed standard and those which are not safe and endangered to the environment to support on establishing the ASEAN Free Trade Area and to enable to reduce technical barriers to trade to facilitate technological transfer and innovation by using the standards for the development of national economic and social activities in accordance with the national development programme.
Chapter 7 Taking Action by Committee No. 19	The committee may, if it is found out that holder of certificate of certification violates any term or condition contained in the relevant recommendation, pass any of the following administrative order: warning suspending the certificate of certification for limited period cancelling the certificate of certification

လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သောဥတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ (၂၀၁၈)	
ရည်ရွယ်ချက်	လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဥတ္ထုပစ္စည်းများကို စနစ်တကျပြုလုပ်ခြင်း၊ တင်သွင်းခြင်း၊ သယ်ယူခြင်း၊ သိုလှောင်ခြင်းနှင်း သုံးစွဲခြင်းတို့ပြုနိုင်ရန်၊ ယမ်းဘီလူးနှင့် ဆက်စပ်သုံးပစ္စည်းများ အသုံးပြုသည့် လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်း၍ လုံခြုံမှုရှိစေရန်၊ လုပ်ငန်းခွင်သုံး ပေါက်ကွဲစေတက်သော ဥတ္ထုပစ္စည်းများ 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 ဥတ္ထုပစ္စည်းများကို ဖျက်ဆီးခြင်းမပြုရ။
အမှတ် ၁၉ (ဂ)	ဤဥပဒေအရ ထုတ်ပြန်သည့် နည်းဥပဒေ၊ စည်းမျဉ်း၊ စည်းကမ်း၊ အမိန့်ကြော်ငြာစာ၊ အမိန့်နှင့် ညွှန်ကြားချက်များနှင့်အညီ ဆောင်ရွက်ရန် ပျက်ကွက်ခြင်း မရှိစေရ။
The Motor Vehicles Law (2015)	
Objectives	When the constructions periods and if it is needed in operation and production period for all vehicles • The project proponent has to promise to abide by the nearly all provisions of said law and rules, especially the provisions related to air pollution, noise pollution and life safety.
The Conservation of Water Resources and Rivers Law (2006)	
Aims	The aims of this Law are as follows: to conserve and protect the water resources and rivers system for beneficial utilization by the public; to smooth and safety waterways navigation along rivers and creeks; to contribute to the development of State economy through improving water resources and river system; to protect environmental impact.
Chapter 5 Prohibitions No. 8	No person shall: (a) carry out any act or channel shifting with the aim to ruin the water resources and rivers and creeks. (b) cause the wastage of water resources wilfully.
No. 10	No person shall anchor the vessels where vessels are prohibited from anchoring in the rivers and creeks.
No.11 (a)	No person shall: dispose of engine oil, chemical, poisonous material and other materials which may cause environmental damage, or dispose of explosives from the bank or from a vessel which is plying, vessel which has berthed, anchored, stranded or sunk.
No. 12	No person shall carry out growing of garden, digging, filling, silt trapping, closing pond, dyke building or erecting spur in the river-creek boundary, bank boundary and waterfront boundary without the permission of the relevant government department and organization.
No. 15	No person shall carry out the construction of switchback, dockyard, wet dockyard, water-tight dockyard, building of jetty, pier, landing stage or

	vessel landing by drainage in the river-creek boundary, bank boundary and waterfront boundary without the permission of the Directorate.
The Commercial Tax Law (1990) Amended 2014	
Chapter 5 Registration and Intimation of Commencement of Enterprise 11 (b)	Any Person who commences operation of a goods production enterprise or service enterprise shall furnish letter of intimidation on the commencement of the operation as such to the relevant Township Revenue Officer as stipulated by regulations.
Chapter 6 Monthly Payment of Tax and Sending of Three-Monthly Return 12 (a)	Any person who has taxable proceed of sale or receipt from service within a year, shall pay due monthly tax within ten days after the end of the relevant month. Moreover, a three-monthly return shall be furnished to the relevant Township Revenue Officer within one month after the end of relevant three-month.
12 (b)	The Township Revenue Officer may intimate any person to pay due monthly tax and send three-monthly return if there is cause to consider that he has taxable proceed of sale or receipt from service within a year.
12 (c)	If it is failed to pay tax under sub-section (a) or (b), or if there is cause to consider that the tax paid is less than the tax payable, the Township Revenue Officer may, based on the information received, estimate and claim the tax payable or the additional tax payable.
12 (d)	The tax paid under sub-section (a), (b) or (c) shall be set-off from the tax due in the assessment.
12 (e)	The tax payable on goods imported under sub-section (c) of section 4 of the Law shall be collected together with the customs duties by the Customs Department in accord with the manner of collecting customs duties.

2.2. INTERNATIONAL GUIDELINES

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

2.3. COMMITMENT OF SAKURA GARMENT CO., LTD.

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

Sakura Garment Co., Ltd. shall be responsible for the environmental assessment of factory development as follows:

- Monitoring the factory area operations according to EMP and Environmental Monitoring Plan (EMoP)
- Submitting environmental monitoring reports to ECD

- Planning and implementation of CSR activities
- To set up welfare plan such as staff medical checkup, training program and Public talk for getting knowledge, risk prevention, bonus and social security services
- To carry out fire safety assessment and ensure adequate and appropriate fire safety measures for employees.

3. PROJECT DESCRIPTION

3.1. LOCATION

Sakura Garment factory is located at Plot No. 74, Phen Chet Wun U Shwe Owe Street, Hlaing Tharyar Industrial Zone (3), Hlaing Tharyar Township, Yangon region. The location point of proposed project is between latitude of 16°51'30.15"N and longitude of 96° 4'18.55"E. Location map is shown in Figure 3-1.

3.1.1. Project implementation

The project approved for the investment permit from the Myanmar Investment Commission (MIC) Permit No. 219/96) on 15, October 1996. The Myanmar Investment Commission, at its meeting 19/2007 held on 27th June 2007 approved the place and name of investment of Sakura Garment Company Limited to be changed from Myanmar Guston Molinel Company Limited. Therefore, during started the EMP process the project factory already operated garment production. We cannot think for construction phase of the project implementation, only focus on operation phase.

Decommissioning phase; The proposed project investment duration is 20 years and they will close and return to land owner.

3.1.2. Adjacent condition of project site

Industrial road (Phan Chet Wun U Shwe Oh Street) was situated at the front of the factory, Mingyi Mahar Min Gaung street is north site of the factory compound, Di Pe Yinn Wun Htaut U Myel street is south site of the factory and Min Theikdi Kyaw Swar street was situated the west of factory compound. List and map of adjacent condition of project site is shown in Figure 3-2. The nearest sensitive water body is about 2 km far from the Pan Hlaing River and about 3 km from Pan Hlaing river.

3.1.3. Site Description

The total area of project site is 1.826 acre. There is comprised by two buildings included one story RC production building (236’ × 118’) and one-story RC warehouse building (240” × 50’) at project site. The project layout plan can be seen in Figure 3-3. Main production building is designed into office, cutting line, ironing, sewing lines, packing section and inspection room. Other facilities like generator room, fuel tank, canteen, water tank and clinic are segregated building in the project compound.

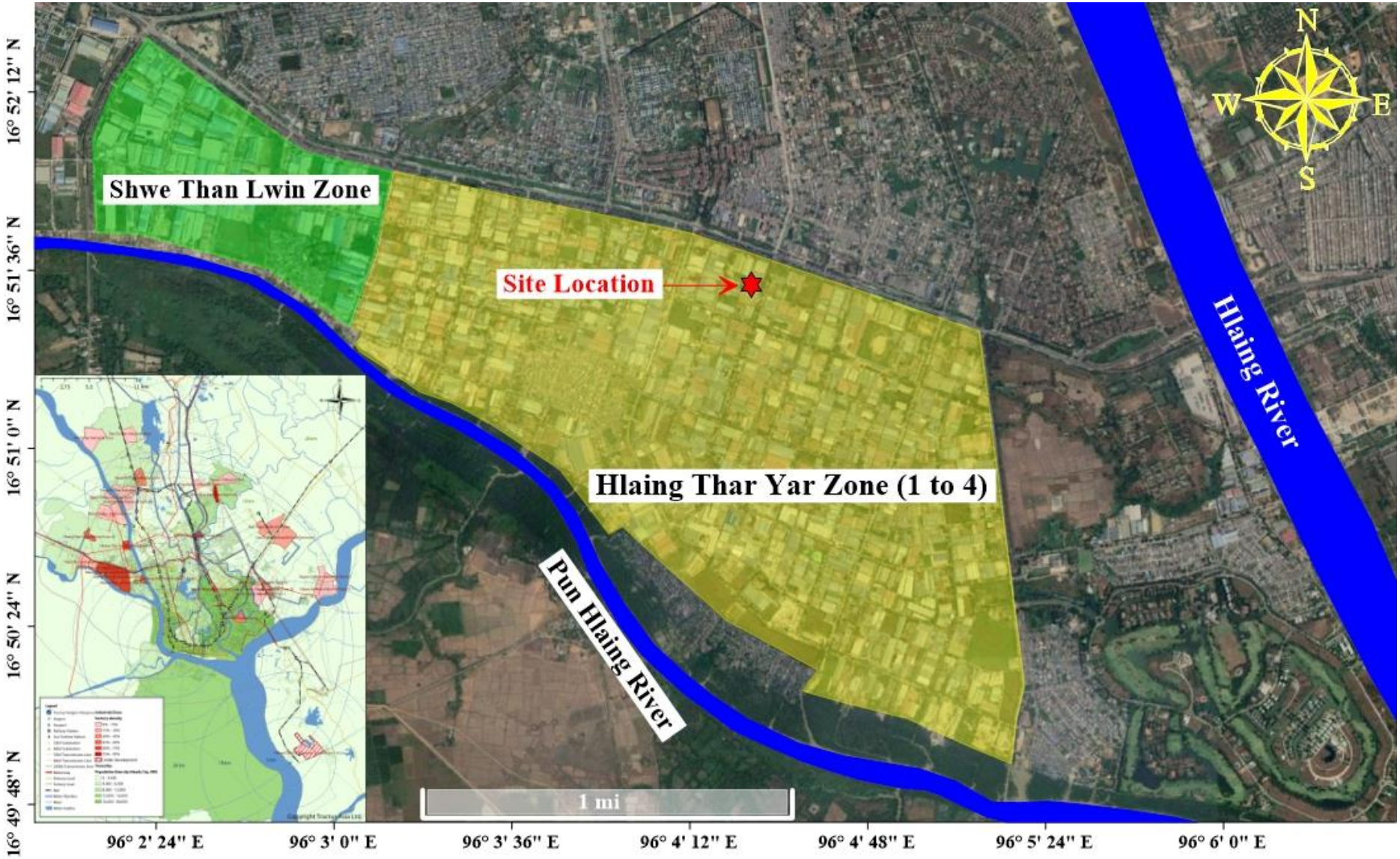


Figure 3-1 Location Map of Sakura Garment factory

Figure 3-2 Adjacent Condition Map of Sakura factory

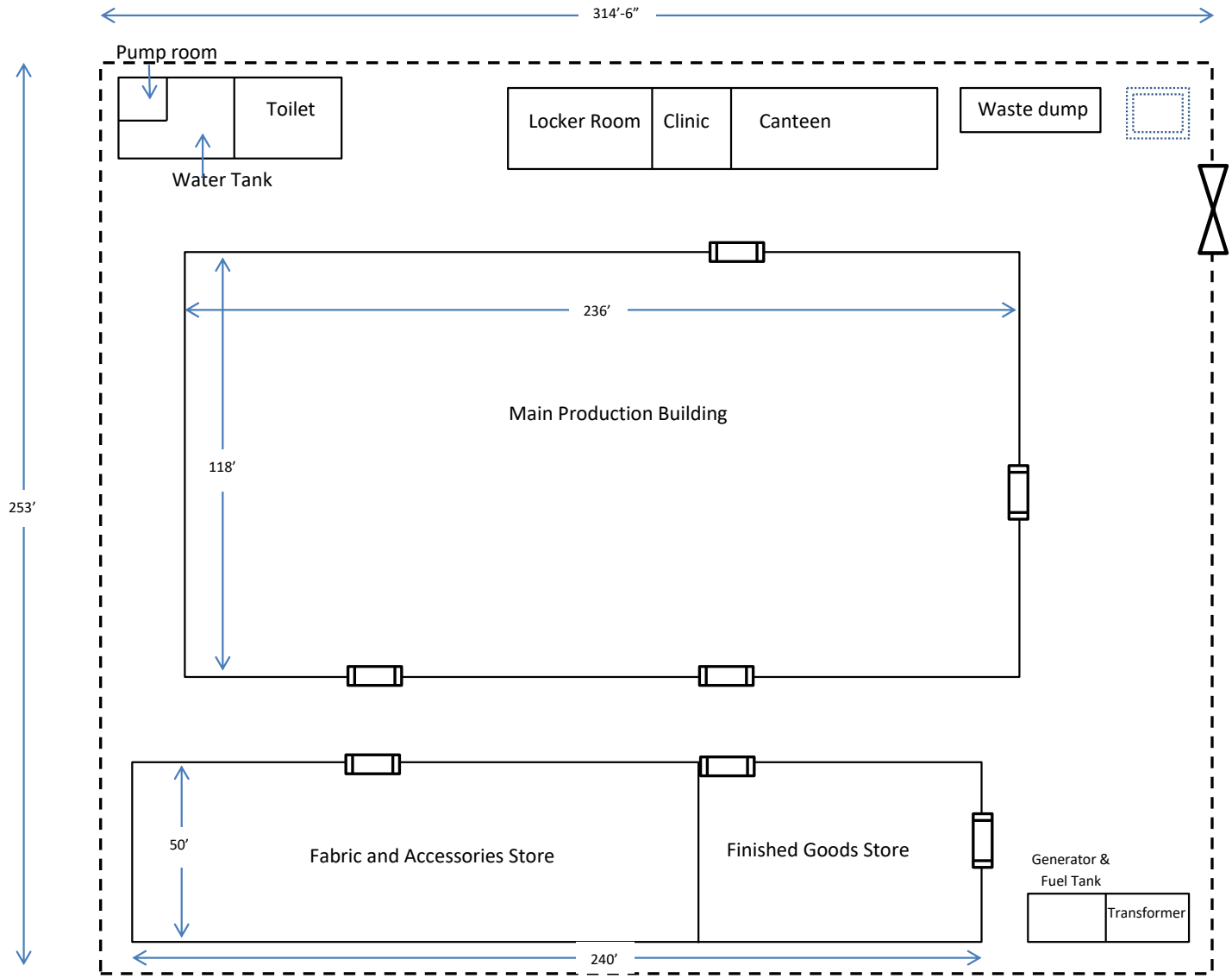


Figure 3-3 Project Site Layout

3.2. PRODUCTION PROCESS

Cutting-Making-Packaging (CMP) is a production system in which raw materials including fixtures and chemicals are imported and then processed into finished product, packaged and exported. The CMP system is a form of production on consignment in which the main raw materials (fabrics, ancillary materials, etc.) are provided by overseas buyers and imported free of charge, then cut, sewn and packed in the domestic factories, after which all of the finished products are exported". The operation of garment factories with CMP system includes production costs covering wages, electricity and diesel, transportation, communication, factory and office rental, maintenance and repair of sewing machines, and administrative expenses. Steps of production process of proposed bag factory are described in Figure 3-4.

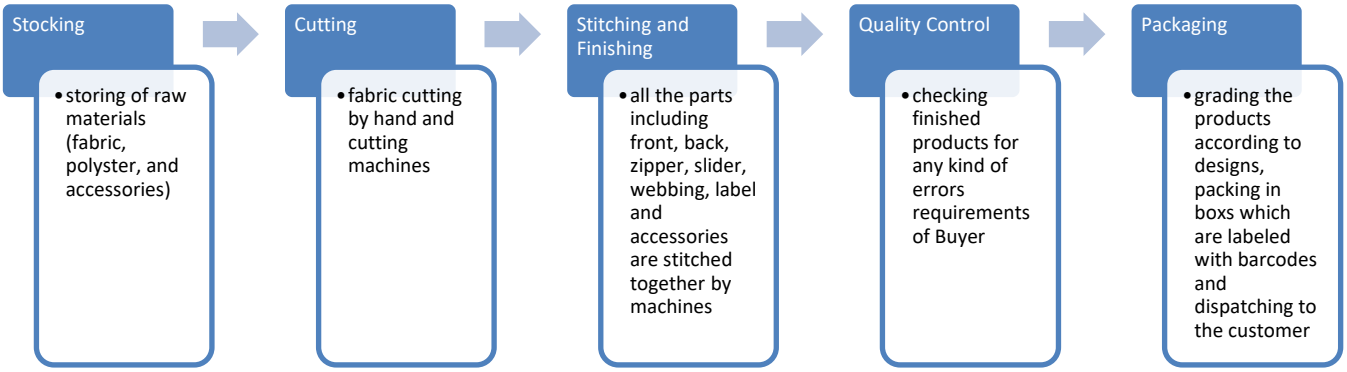


Figure 3-4 Process Flow Diagram

3.2.1. Description of Production Process

3.2.2. Description of Garment Manufacturing

- **Design:** the buyer provides Design. After placing an order buyer send the technical sheet and art-work of an order to the merchandiser. Both do this process manually or by using computer.
- **Pattern Making:** By following technical sheet and artwork, pattern of each garment style should be made. Both do it manually and by using computerized method.
- **Fit Sample Making:** The main target of making a fit sample is to follow the details instruction about that garments style. After making, it has sent to the buyer to rectify. It's done by manually.
- **Production Pattern Making:** For bulk production, allowance added here with net dimension. Both do production Pattern Making manually and by using computer.
- **Grading:** During an order confirmation, the buyer suggests about the size ratio of that order. So that order should be graded according to the buyer's instruction. Grading is done by manually or by using computer.
- **Marker Making:** Marker is a very thin paper, which contains all the parts of a particular garment. To make the cutting process easy, it's must be needed. Both can do marker-making process manually and by using computer.

- **Fabric Spreading:** To cut the fabric properly fabric is spread in lay form. Fabric Spreading is done by manually or by using computerized method.
- **Fabric Cutting:** Fabrics have to cut here according to marker of garments. Fabric Cutting process is done by using manual method or computerized method.
- **Cutting Parts Sorting or Bundling:** Here, cutting parts have to sort out or make bundling to send these easily into the next process. This process is done by manually.
- **Sewing:** All the parts of a garment are joined here to make a complete garment. Sewing process is done by manually.
- **Garments Inspection:** After completing sewing, inspection should be done here to make fault free garments. Garments Inspection is done by using manual method.
- **Garments Ironing and Finishing:** Here, garments are treated by steam; also required finishing should be completed here. This process is done by using manual method.
- **Final Inspection:** Finally, the complete garments are inspected here according to the buyer's specification. Final Inspection is done by manual method.
- **Garments Packing:** Complete garments are packed here by using buyers instructed poly bag. Garments packing are done by using manual method.
- **Cartoning:** To minimize the damages of garments, all the garments have to cartoon by maintaining buyers' instruction. This process is done by manually.
- **Shipment:** After completing all the required processes it's finally send to the buyer.

Fabric and Accessories Store

Cutting section

Sewing section

Ironing section

Needle Inspection (QC)

Packing

Figure 3-5 Operation Process Photo at Sakura Garment Factory

3.2.3. **Products**

Labor suits are the only main product of the factory (product photo as shown in Figure 3-6). The main products are imported to the only Japan. Annual production rate is presented in Table 3-1.


Figure 3-6 Product Photo

Table 3-1 Annual Production at Sakura Garment factory

Description	A/U	Year-2	Year-3	Year-4	Year-5	Year 6-11
Labour Suit	PCS	182,500	255,500	328,500	401,500	474,500

3.3. UTILITIES

3.3.1. Raw Material

Raw Materials, which include silk, fabric, threads and ornamental fabrics, are imported from Japan and carried to the Sakura's Factory by the containers. After quantity verification, these raw materials are stored properly in specified area as per their varieties i.e. cotton and polyester are stored on the shelves; zipper, label and accessories are stored in open cabinets with labels. Annual raw material requires for production process are provided in Table 3-2. Moreover, lubricants, paint and glue are also imported and they are stored in designated area called as chemical room.

Table 3-2 List of Annual Raw Material

No	Particular	A/U	Year 1	Year 2	Year 3	Year 4	Year 5-9	Year 10
1	Fabric	m	875	1,225	1,575	1,925	2,275	19,250
2	Trimming	m	875	1,225	1,575	1,925	2,275	19,250

3.3.2. Machinery and equipment

Lists of machinery and equipment required for the Sakura's factory is listed in Table 3-3.

Table 3-3 List of Machinery

Stage	Machinery Name	Asset	Quantity
Pre-preparation and cutting	Marker making	set	1
	Straight knife	set	8
	Band knife	set	2
	Drill in cutting	set	3

Stage	Machinery Name	Asset	Quantity
	Spreading m/c	set	3
	Cutting table	set	3
	Folding table	set	4
	Strapping m/c	set	2
	End cutter	set	3
	Fabric testing equipment	set	1
Stitching and sewing	One needle m/c	set	50
	Two needle m/c	set	42
	Button hole m/c	set	5
	Eyelet button hole m/c	set	2
	Button Fixing m/c	set	1
	Button set m/c	set	7
	Snap button fastener	set	5
	Press button set m/c	set	3
	Overlock m/c	set	30
	Zic Zag m/c	set	1
	Bar-track m/c	set	7
	Feed off arm m/c	set	5
	Hemming m/c	set	7
	Belt loop m/c	set	2
	Waistband m/c	set	5
	Collar turner m/c	set	2
	Fusing m/c	set	1
	Press folder	set	1
Finishing	Vacuum board	set	12
	Boiler	set	6
	Iron	set	12
	Water Softener	set	1
	Cleaning gun	set	1
	Washing m/c	set	1
	Thread winder	set	1

3.3.3. **Work Force**

Human resource required by only local persons for administrative and production process (Table 3-4).

Table 3-4 Annual Human Resource Requirement

General Manager	1
Factory Manager	2
Accountant	1
Supervisor	10
Forman	10
Skilled Worker	350
General Worker	120
Staff	10
Total	**504**

3.3.4. Water Requirement

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. 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 treated by oxidation tower, chlorine dosing system, de-iron filter (FRP), carbon filter, and cartridge filter (see in photo). Annual water requirement is 7,000 m3. Main source of water supply will be provided by tube well water (ground water) in which ground water will be pumped to the overhead water tank (3000 gal) for domestic general use and ground water tank for firefighting.

3,000 Gallons Overhead tank

Ground Tank for Firefighting

Figure 3-7 Water Requirement of Sakura Garment Co., Ltd.

3.3.5. Electricity and Fuel Requirement

The proposed project is intended to get required electricity supply form Yangon City Electricity Supply Board (YESB) and distributed by 400 kVA transformer. Another source of energy 550 kVA generator (ENGGA) will also be kept as the emergency generator if normal electricity supply could not

provide for the proposed project. Estimate electricity usage is 2.5 Mega Watt hour per month (MW.hr/day) (six working days per week). According to the MIC proposal, an annual fuel requirement for proposed Factory is 22,680 litters and annual electricity consumption is 675,600 kWh.

400 KVA Transformer

Generator house

Chimney for Generator

Diesel Fuel Tank

Figure 3-8 Electricity Usage of Sakura Garment Co., Ltd.

3.3.6. Electronic Stream Boiler

18 kg per hour and 36 kg per hour of two electric steam boilers are a type of boiler where the steam is generated using electricity for garment ironing (Figure 3-9). **(Certificate of boiler is presented in Appendix C)**

36 kg/hr Boiler 18 kg/hr Boiler

Figure 3-9 Electronic Steam Boiler at Sakura Garment factory

3.4. FACILITIES

3.4.1. 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 12,000 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 3-10.

Figure 3-10 Firefighting System

3.4.2. Liquid Waste Control Facility

Water discharge from the factory site will be treated by silts track tank before discharging. The factory plan has kitchen, canteen and toilet facilities attached in various buildings of the factory. In the kitchen, separated drainage lines are provided to flow wastewater from the activities washing and cooking, etc. And around the compound area of the project area, drainages are also provided and maintain to flow storm water (rain water, snow and surface water). The compound area of the factory is paved with concrete and the drainages are covered and holes are there to flow the storm water. The existing drainage at the project area can be seen in Figure 3-11. 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 3-11 Drainage and Toilet Facility

3.4.3. Solid Waste Management Facility

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

Figure 3-12 Waste Storage Photo

3.4.4. Medical and Health Facility for Employments

The factory has a clinic and full-time nurse-aid has been employed to treat employees for minor injuries, sickness and emergency medical care. Medicines and first aid kits are provided in this clinic. Moreover, these medicines and first aid kits are provided for emergency cases of workers. First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for workers. According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for relevant department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.

Figure 3-13 First Aids and Medical Room Photo

3.5. WASTE GENERATION

The project will be generated solid waste, liquid waste and hazardous waste from the operation of the Sakura's 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	8% a roll of fabric (kg)	Production line and cutting line
		Raw material cutting wastes	800 kg / month	
		Disposed packaging materials, paper or plastic wrapping	100 kg / month	Materials store and supply packaging
	Non re-usable	Food residues, domestic waste	196 kg / day*	Canteen, Kitchens, dormitory
Liquid waste		Sanitary discharge water	50 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

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

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

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 report preparation;

- Onsite Measurements and Analysis – Baseline parameters such as indoor temperature, humidity, noise and light condition was measured in the project operation area. 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 Hlaing Thar Yar Township, Yangon Region.

4.2. ENVIRONMENTAL BASELINE STUDY

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

4.2.1. Site survey and Environmental Monitoring

The baseline environmental quality at the Project Site and its immediate surroundings was established by groundwater, wastewater, 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 November 2018.

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

Table 4-1 Summary of Environmental Survey

Item	Parameter
Air quality	PM10 and PM2.5
Noise level	Indoor sound level (LAeq)
Light Level	Industry light condition (Lux)

4.2.2. Indoor Temperature and Humidity

The indoor temperature and humidity condition during 13 September 2018 shows the average temperature of 31.7 °C while the average humidity is 87.6 percent.

Figure 4-1 Humidity and Temperature Measure at Sakura Garment factory

4.2.3. Air Quality

To determine the existing baseline ambient air quality status within the cutting section on 13 September 2018, 8-hours of working period air pollutants level, which include dust (PM_{10} and $PM_{2.5}$). To determine the existing baseline ambient air quality status within the project site of working period air pollutants level, which include gases (CO, CO_2, SO_2, NO_2, O_3, VOC) were measured at the selected site using the Oceanus 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°51'29.47"N and 96° 4'19.97"E. The detail monitoring results are shown in **Error! Reference source not found.** and Table 4-3. Air Quality monitoring point is shown in Figure 4-2.

Figure 4-2 Air Quality Monitoring Point

Table 4-2 Indoor Air Quality Results

Parameters	Observed value	Guideline value	Unit	Organization	Period
PM_{10}	41.3	50	$\mu g/m^3$	NEQG	8 hrs
$PM_{2.5}$	32.5	25	$\mu g/m^3$	NEQG	8 hrs

Table 4-3 Outdoor Air Quality Results

Parameters	Observed value	Guideline value	Unit	Organization	Period
Outdoor Air Quality					
CO	0.35	NG	ppb	-	8 hrs
CO_2	2.57	NG	ppm	-	8 hrs
SO_2	0.18	20	$\mu g/m^3$	NEQG	8 hrs
NO_2	15.34	200	$\mu g/m^3$	NEQG	8 hrs
O_3	3.00	100	$\mu g/m^3$	NEQG	8 hrs
VOC	0.01	NG	ppm	-	8 hrs

Figure 4-3 Indoor and Outdoor Air Monitoring Photo

4.2.3.1. Summary of air quality result

It was observed that the air quality of particulate matter (PM10, PM2.5) and gases (CO, CO2, SO2, NO2, O3, VOC) are within the National Environmental Quality (Emission) Guideline.

4.2.4. **Noise**

The Noise level was measured by using Digital Sound Level Meter for working hours on 13 September 2018 (Figure 4-4). The average noise level in the project site area is 70.12 dB. Receptor (nearby production area at project site) noise level of measurement are within the comfortable range of 60-70 decibel.

Figure 4-4 Noise Level Measurement In The Factory

4.2.4.1. Summary of noise result

However, according to the Noise source monitoring at operation area (inside the production sector) of noise level is acceptable level of National Environmental Quality (Emission) Guideline. However, personal protective equipment cover provision of noise impact measures will be provided for employees, workers.

4.2.5. Light

Activities of the workers in the garment factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in the garment factory is presented in Figure 4-5. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in garments factory is provided in Table 4-4.

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

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

Source: Koenigsberger, et al. 1975

Light measure at sewing line

Light measure at cutting line

Figure 4-5 Light Quality Measurement in Sakura Garment Co., Ltd.

Table 4-5 Light Measurement in Garment factory

No	Location	Measure value(Lux)	Standard*
1	Sewing Line A-1	738	600
2	Sewing Line A-2	325	600
3	Sewing Line B-1	395	600
4	Sewing Line B-2	423	600
5	Sewing Line C	338	600
6	Sewing Line D	387	600
7	Scrap gluing area	277	200
8	Cutting	462	400

8	Quality Control	574	900
10	Packing	124	100

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

4.2.5.1. Summary of light result

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

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

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 convergenceon the Yangon and Bago River region about 34km away from the Gulf of Martaban. The proposed project area is situated at Shwe Pyi Thar Township, and its topographic condition is flat. The proposed project site is primarily agricultural land, but now is initiated into the industrial zone area.

4.3.2. **Geology**

In Yangon area mainly composed of Pegu Group, Irrawaddy Formation and Alluvium. Alluvial deposits (Pliestocene to Recent), the non-marine fluvialtile sediments of Irrawady formation (Pliocene), and hard, massive sandstone of Pegu series (early-late Miocene) underlie the Yangon area. Alluvial deposits are composed of gravel, clay, silts, sands and laterite which lie upon the eroded surface of the Irrawaddy formation at 3-4.6 m above mean sea level (MSL). The rock type in Yangon is mainly soft rocks, which consist of sandstone, shale, limestones and conglomerate. Geological map of Yangon Regional area is shown in Figure 4-6.

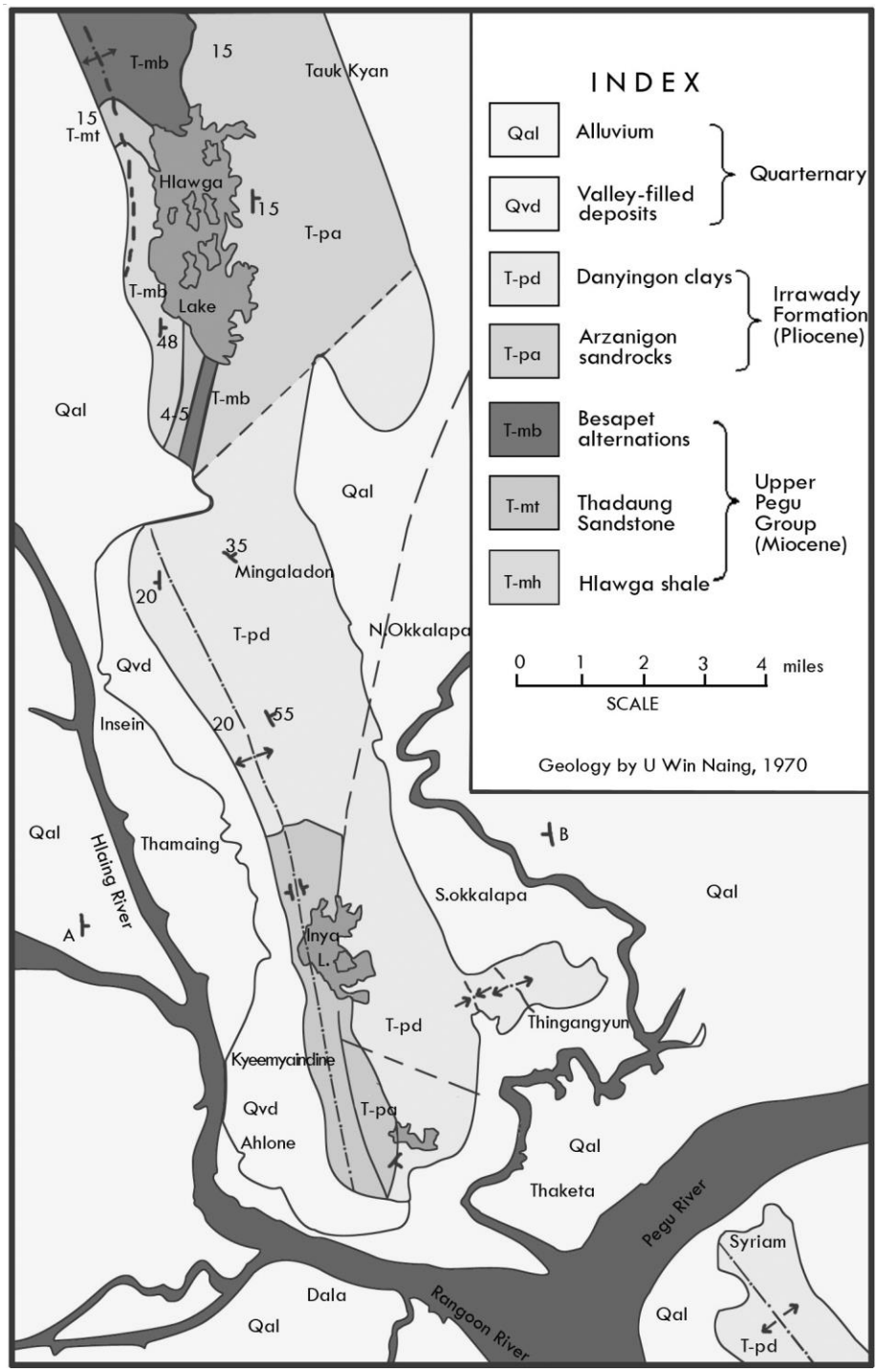


Figure 4-6 Geological Map of Yangon Region

4.3.3. **Tectonics**

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

4.3.4. Soil

The underlying soil type at the Project Site and its surroundings is characterized as the Meadow and Meadow Alluvial Soil. Meadow Soil is soil, which occurs near the river plains exposed to occasional tidal floods, is non-carbonate and usually contains a large amount of salt. Both materials mainly comprise salty 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 could accommodate the construction of the Project.

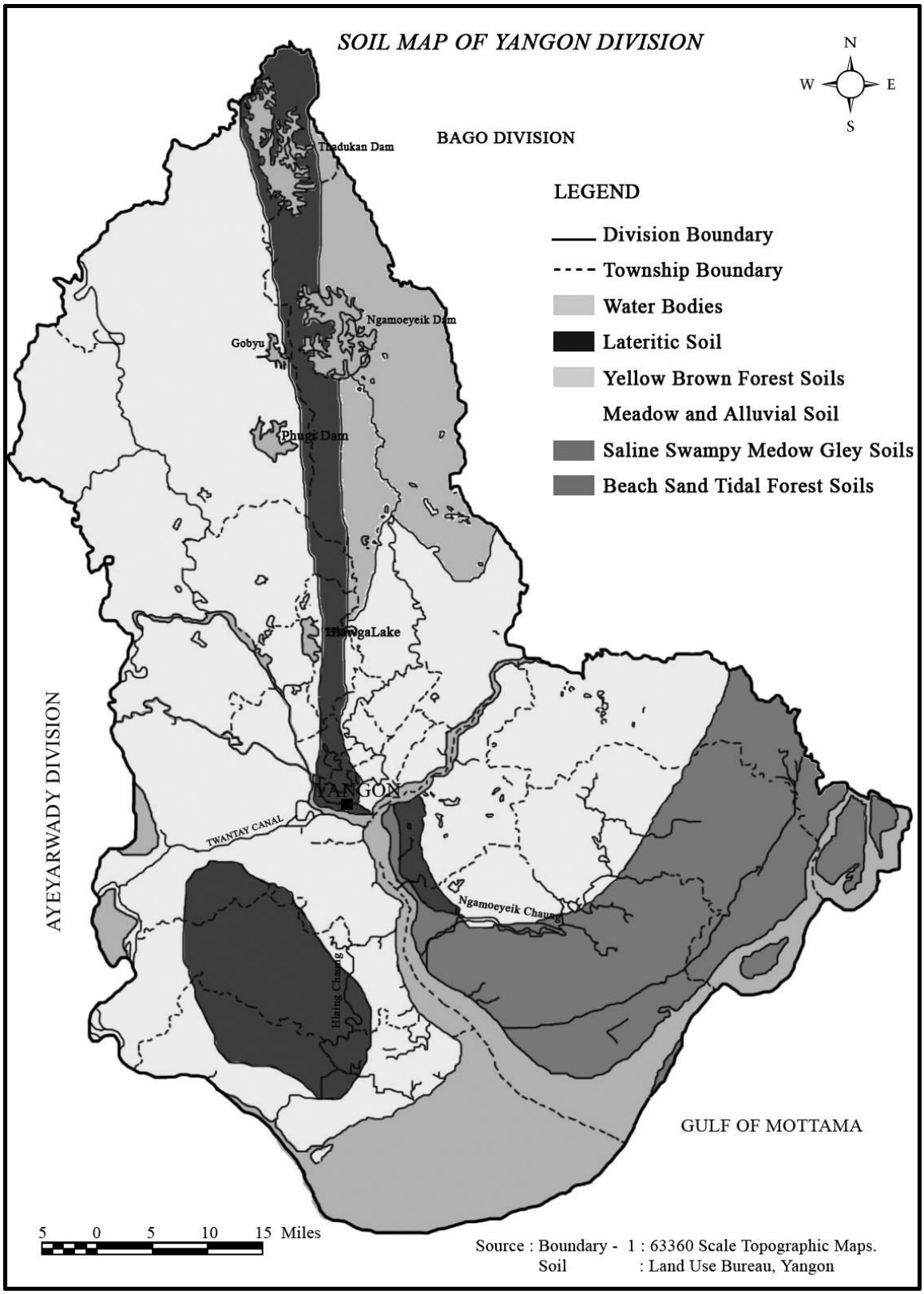


Figure 4-7 Soil Map of Yangon (Source: Land Use of Bureau of Yangon)

4.3.5. **Hydrogeology**

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

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

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

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

4.3.6. **Climate and Meteorology**

4.3.6.1. Average weather in Yangon

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

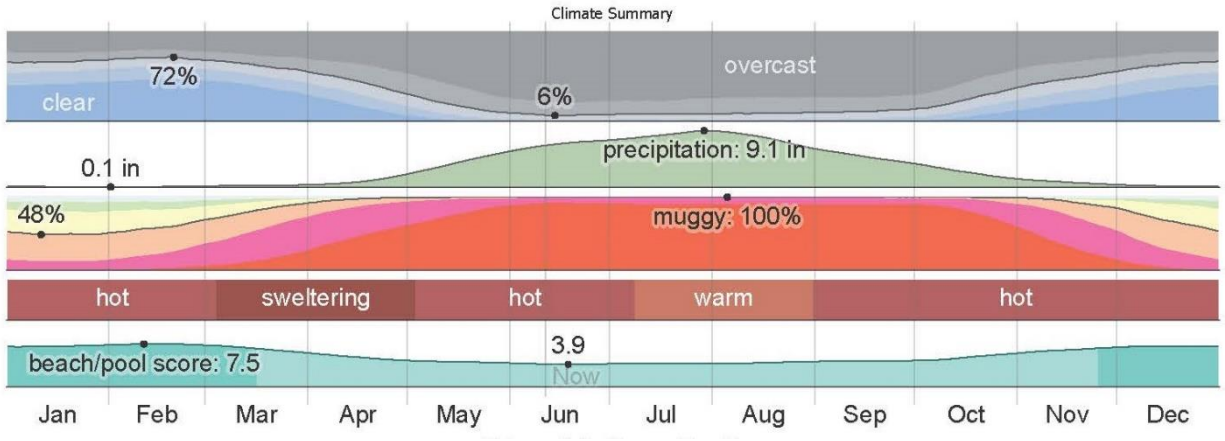


Figure 4-8 Climate Summary of Yangon Region

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.

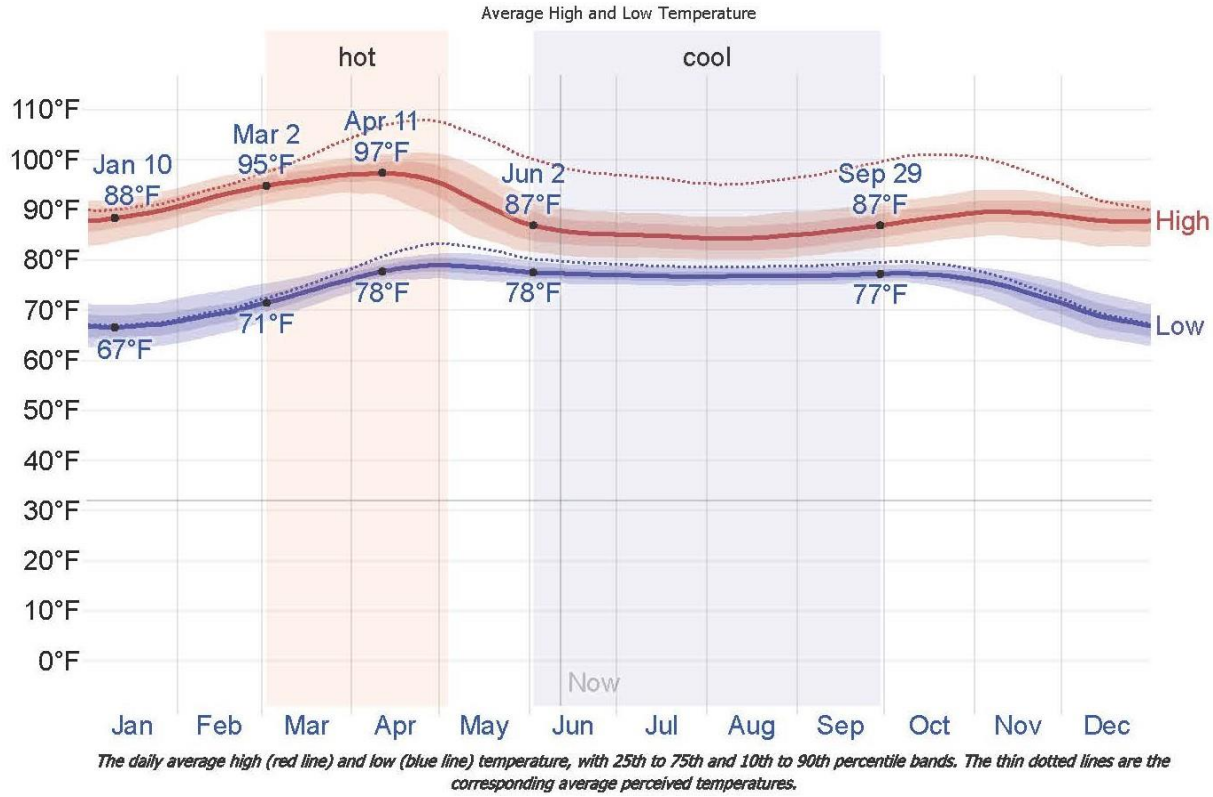


Figure 4-9 Average Temperature of Yangon Region

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.

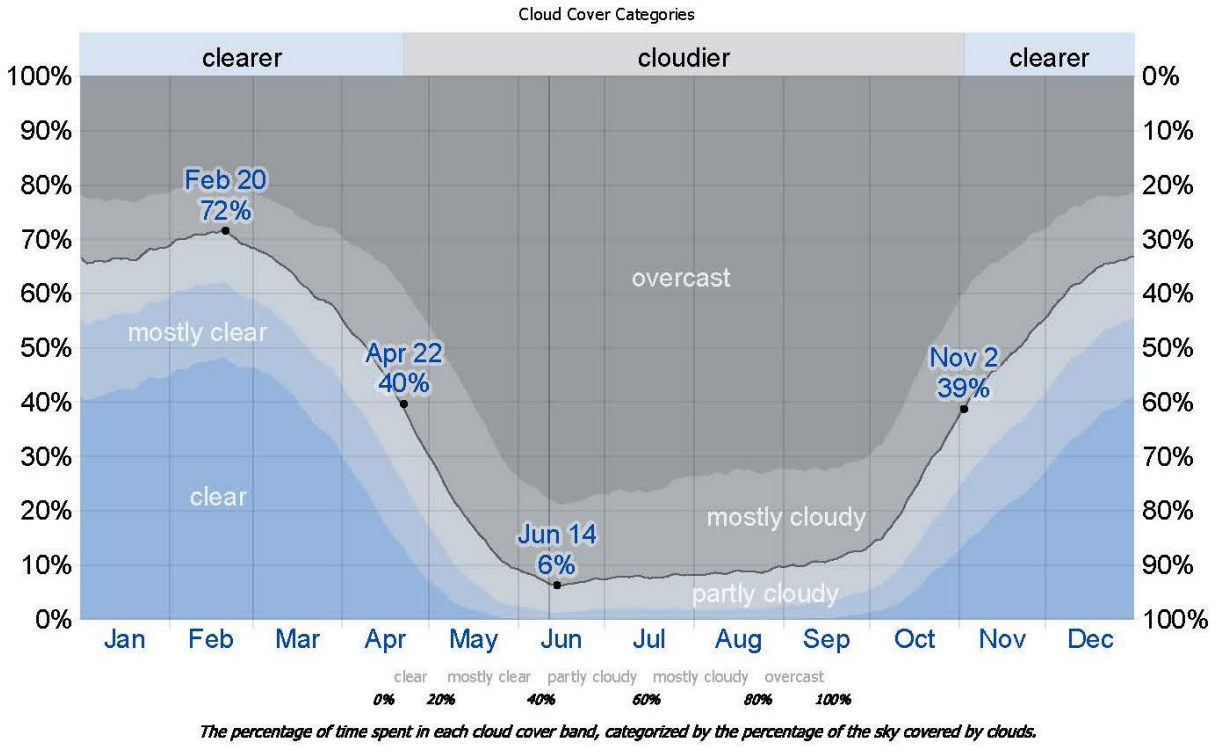


Figure 4-10 Cloud Cover Categories

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.

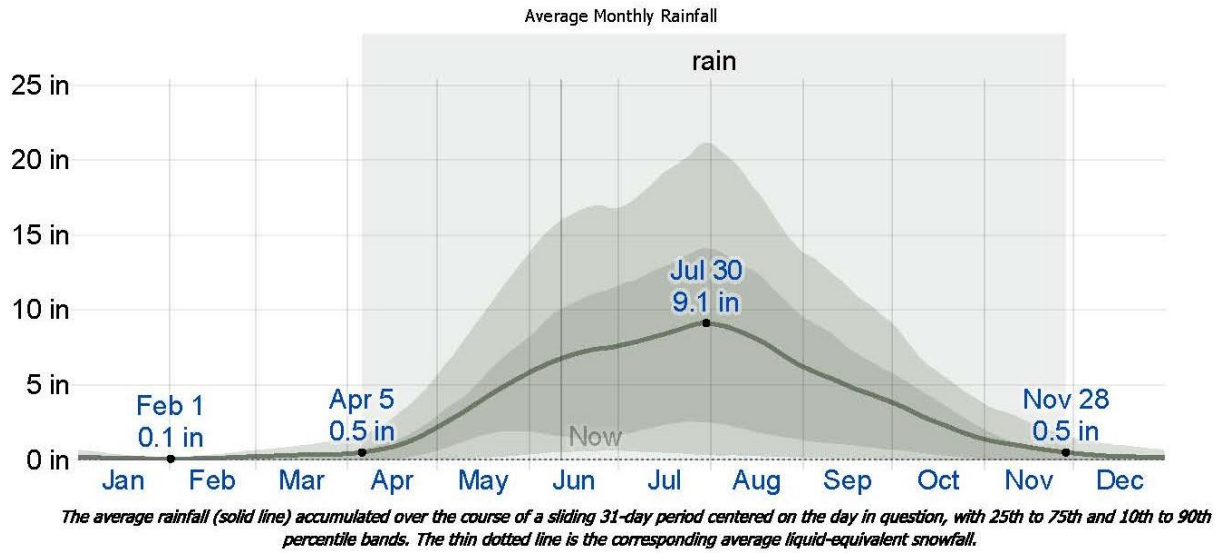


Figure 4-11 Average Monthly Rainfall at Yangon Region

Table 4-6 Annual rainfall and temperature

Year	Rainfall		Temperature	
	Raining day	Rainfall value (Inches)	Summer season Max (°C)	Winter season Min (°C)
2017-2018	102	105.4	41°C	27°C
2018-2019	88	84.8	40°C	26°C

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

4.3.6.5. Humidity

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

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

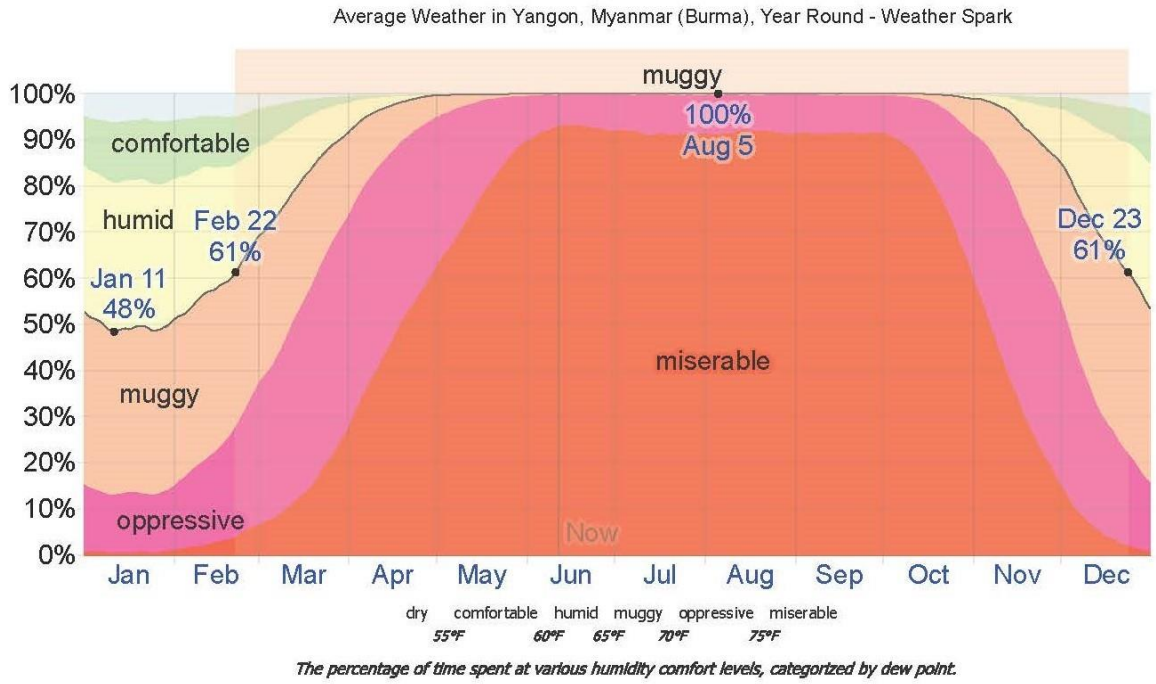


Figure 4-12 Humidity of Yangon

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 winder part of the year lasts for 4.1 months, from May 1 to September 4, with average wind speeds of more than 8.2 miles per hour. The windiest day of the year is June 24, with an average hourly wind speed of 10.6 miles per hour. The calmer time of year lasts for 7.9 months, from September 4 to May 1. The calmest day of the year is January 9, with an average hourly wind speed of 5.8 miles per hour.

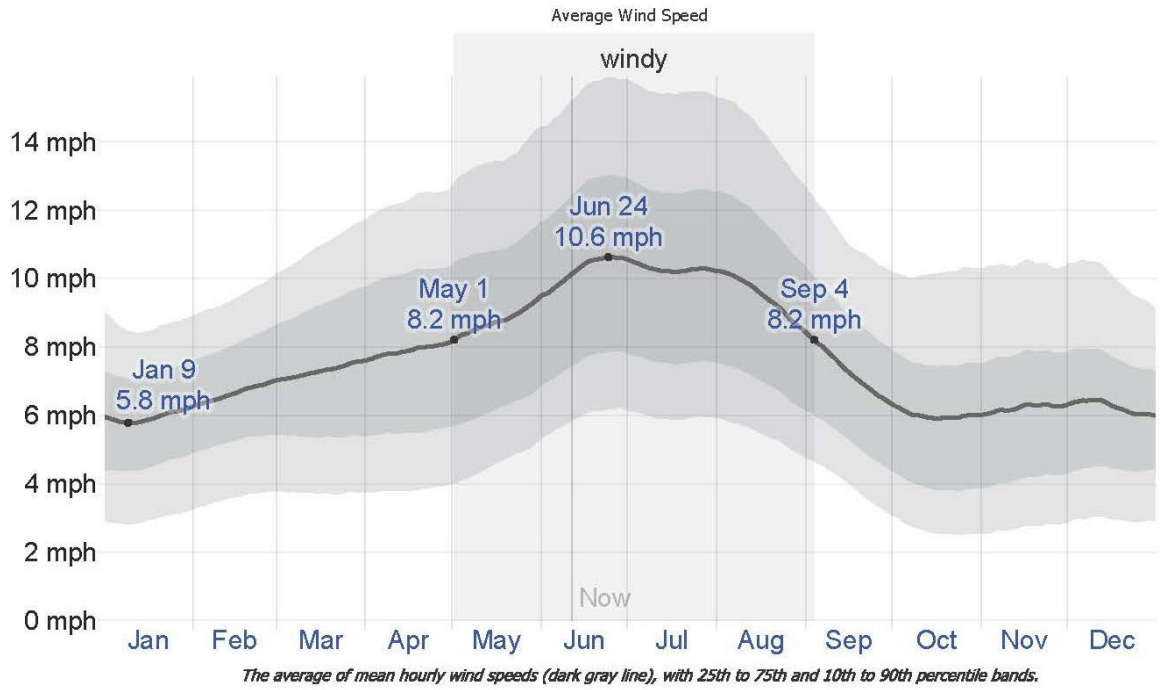


Figure 4-13 Average Wind Speed in Yangon

4.4. BIOLOGICAL COMPONENT (SECONDERY DATA)

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

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

4.5. SOCIO-ECONOMIC COMPONENT

4.5.1. Population

Sakura Garment Factory is located across Hlaing Thar Yar Township in Yangon Region. In 2019, the population of Hlaing Thar Yar Township is about 440,949 people as present in Table 4-7.

Table 4-7 Population of Males and Females at Hlaing Thar Yar Twonship (2019)

Item	Over 18 year			Under 18 year			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Urban	110193	125186	235379	49964	55193	105157	160157	180379	340536
Rural	34642	32707	67349	16488	16576	33065	51130	49283	100413
Total	144835	157893	302728	66452	71769	138221	211287	229662	440949

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

4.5.2. Religion

The different kinds of religion present Hlaing Tharyar townships are shown in Table 4-8. More than 90% of the people living in the township is Buddhists.

Table 4-8 Religion in Hlaing Thar Yar Township (2019)

Township	Buddhist	Christian	Hindu	Muslim	Total
Hlaing Thar Yar	422529	6400	8320	3700	440949

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

4.5.3. Local Economy

Among regional towns, Hlaing Tharyar 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 Hlaing Tharyar Township are railway, port, and car road as presented in Table 4-9.

Table 4-9 Transportation Route

Categories		Township			Miles
Water Route		From Pan Hlaing River and Hlaing confluence		To Ngwe Pin Lae Industrial	8
No.	**Township**	**Bus Stop**	**Transportation path**	**Type of Bus**	**No. of Bus**
1	Hlaing Thar Yar	16	11	YBS	125

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

4.5.4.2. Electricity

The electricity demand of Hlaing Thar Yar Township is higher and higher due to the normally increased in population and infrastructure.

4.5.4.3. Education

. Location of major schools was 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 West Yangon Technological University, in the Hlaing Tharyar Township. The name and the located village tract/ ward of schools are described in Table 4-10.

Table 4-10 List of major school in Hlaing Tharyar Township

No.	Name of School	Location
1	West Yangon Technological University	Apyin Padan Village Tract
2	BEHS (1)	No. (2) ward
3	BEHS (2)	No. (12) ward
4	BEHS (3)	No. (17). Ward
5	BEHS (4)	No. (5) ward
6	BEHS (5)	No. (7) ward
7	BEHS (6)	Yae Okken
8	BEHS(7)	No. (16) ward
9	BEHS (8)	No. (20) ward
10	BEMS (Branch) (1)	No. (6). Ward
11	BEMS (Branch) (2)	Nyaung Village Tract
12	BEMS (Branch) (3)	Dine Su, Nyaung Village
13	BEMS (Branch) (4)	No. (6) ward
14	BEMS (Branch) (5)	No. (1) ward
15	BEMS (Branch) (6)	No. (10) ward

No.	Name of School	Location
16	BEMS (Branch) (7)	Apyin Padan Village Tract
17	BEMS (Branch) (8)	No. (18) ward
18	BEMS (Branch) (9)	Shwe Lin Pan Village Tract
19	BEMS (Branch) (10)	No. (9) Ward
20	BEMS (Branch) (11)	No. (12) Ward
21	BEMS (Branch) (12)	No. (18) Ward
22	BEMS (Branch) (13)	No. (15) Ward
23	BEMS (Branch) (14)	No. (14) Ward
24	BEMS (Branch) (15)	No. (13) Ward
25	BEMS (Branch) (16)	No. (11) Ward
26	BEMS (Branch) (17)	No. (7) Ward
27	BEMS (Branch) (18)	No. (11) Ward
28	BEPS (1 to 32)	Hlaing Thar Yar
29	Pre School (1 to 6)	Hlaing Thar Yar

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

4.5.4.4. Health Status

The diseases of high prevalence reported in 2019 are Tuberculosis (TB), followed by Acute Respiratory Infection (ARI), Diarrhea, TB and snakebites. With reference to the Township Health Profile 2019 of Hlaing Thar Yar Township, no accidental work injuries reported to the township hospital in 2013. The common diseases are shown in Table 4-11 and Table 4-12.

Table 4-11 Common Diseases in the Project Area, 2019

Disease	Hlaing Thar Yar Township	
	Morbidity	Mortality
Malaria (Per 100000P)	-	-
Dysentery	37	-
Diarrhea (Per 100000P)	21	-
TB (Sputum+)(Per 10000P)	67	-
Hepatitis	5	-

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

Table 4-12 Lists of Hospital in the Haling Thar Yar Township

Hospital Name	Beds/Services	Responsible
Township Hospital	200	Government
Cottage Hospital (Shwe Lin Pan)	16	Government
Pan Hlaing	95	Private
Tun Foundation	20	Private
Total	331	-

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

4.6. CULTURAL AND VISUAL COMPONENTS

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

5. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

5.1. IMPACT IDENTIFICATION

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

5.1.1. Positive Impact

During the project implementation, local people can get job opportunities in administrative sectors, office works, transportation sectors, skill and unskilled workers, etc. Due to the implementation of the project, there will be employment opportunities especially for workers from the local community. Employees will also improve more in their professional knowledge and skills. The net effect of job creation is the improvement of the livelihoods and living standards of the beneficiaries and poverty reduction, development of local people's livelihood. Cause of the proposed project is located in Hlaing Thar Yar Industrial Zone (3), there may have business opportunities to local people. Local people can have a market by selling foods, snacks and drinks nearby the factory.

5.1.2. Negative Impact

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

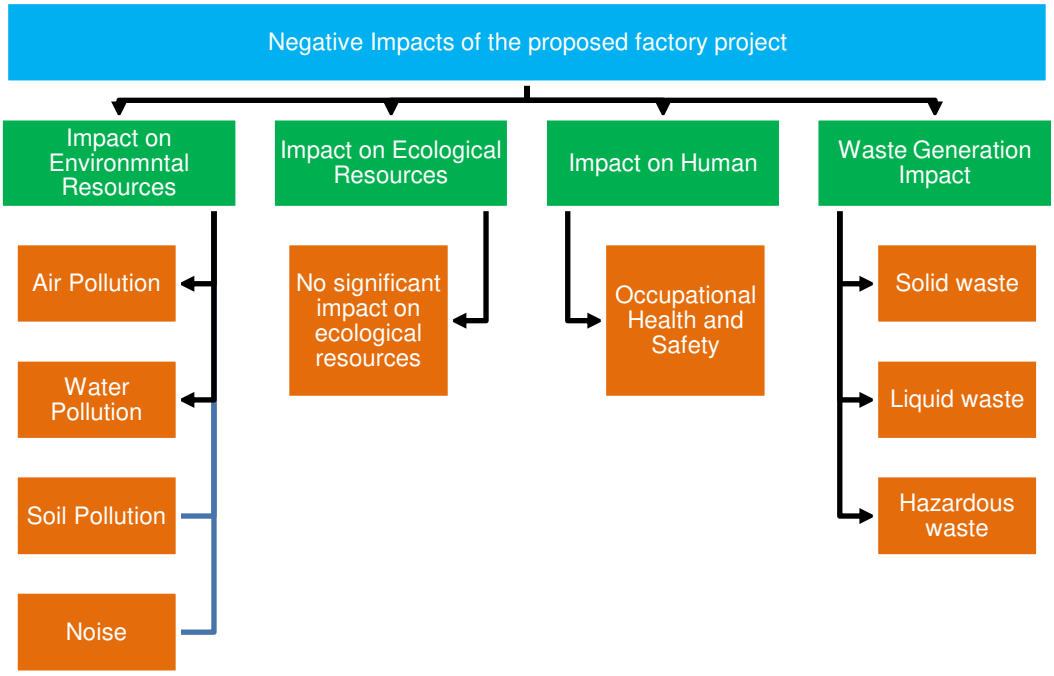


Figure 5-1 Potential negative impact affect from proposed factory project

5.2. METHODOLOGY FOR THE ASSESSMENTS

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

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

Table 5-1 Impact Assessment Parameters and Its Scale

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

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

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

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

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

5.3. POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION AND DECOMMISSIONING PHASE

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

Decommissioning phase: The term of the Lease shall be initial 60 years commencing from the date of signing of the Lease Agreement between Local owner and Sakura Garment Co., Ltd. for proposed project site for 1.826 acres of land and extendable for ten years in 2 times. The project of land and building will be restitution to land owner after close the operation. Therefore, the assessment study cannot be need for environmental impact assessment during decommission phase.

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

5.4. SIGNIFICANT IMPACTS OF PROJECT ACTIVITY AND MITIGATION MEASURE

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

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

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Impact on Environmental Resource									
Air	• Dust and GHGs emission from vehicles used for transporting raw materials and final products • Emission from emergency diesel generator and vehicle movement	3	4	2	4	36	Moderate	• Air pollution in atmosphere. • Inhaling them can increase the chance you'll have health problems. • People with heart or lung disease, older adults and children are at greater risk from air pollution.	• To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. • The factory uses chimney for generator through which the flue gases are emitted for reducing the impact of stack emission on environment. • Ensuring vehicles, compressor and generator are well maintained.
Water	• Production process	1	4	1	1	6	Insignificant	• The factory not generated wastewater from production process on CMP basic	• No Mitigation Measure
Soil	• Engine oil leaks, spills at diesel storage and during fuel refueling.	1	4	1	1	6	Insignificant	• The factory compound area was paved with concrete and hence, contamination due to	• No Mitigation Measure

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
								the oil spillage at this area is insignificant.	
Noise and Vibration	• Generating noise from the production machinery	1	4	1	1	6	Insignificant	• The factory not operate heavy machinery • the major noise source of CMP basic operation activities such as cutting, stitching/finishing and packaging by respective machines. There is insignificant impact on surrounding environment	No Mitigation Measure
Impact on Ecological Resources									
Flora and fauna on terrestrial and aquatic life	Operation of the garment factory	1	4	1	1	6	Insignificant	• Not Significant Impact on Ecological Resources	• No Mitigation Measure
Impact on Human									
Fire	• Poor electrical installations • Waste disposed area raw materials and chemical	3	5	2	4	40	Moderate	• Serious damage to property and even injury and death	• To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. • Regular inspection for existing

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
	storage								firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. • The emergency fire alarms are installed at the factory for alerting the workers in case of fire. • The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
Occupational Safety	• Accidental cases cause by operating machines. • Unloading, mixing, cutting, pressing and packaging activities. • Accidental cases of thermic fluid heater	3	4	1	4	32	Moderate	• Accident in workplace (physical injuries or even death) can occur during operation.	• First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. • According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and 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

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									staff (handyman) is to be assigned to do regular inspections and take preventive measures.
Health	• Influx of people • Noise from the generating of the emergency generators	2	4	1	2	14	Very Low	• Change in demographic structure, new diseases form immigrant workers • To cause a range of health problems ranging from stress, poor concentration, productivity losses in the workplace, and communication difficulties and fatigue from lack of sleep, to more serious issues	• Manage the drainage systems of the factory to prevent health risk of the workers. • The maximum allowable noise level for workers is 90dB(A) for 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
Waste Generation Impact									
Solid Waste	• Residual pieces of fabric scraps from the production lines • Waste from packaging materials • Waste from kitchen, dormitory	3	4	1	4	32	Moderate	• Surrounding environmental pollution and soil contamination	• Provides separate garbage bins at each building. • All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area • Final wastes should be disposed

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
	and office.								by using YCDC's service.
Liquid Waste	• Septic system and sewage. • Domestic liquid waste disposal from office, kitchen and dormitory.	2	4	2	2	16	Low	• Contamination of soil, surface water, ground water	• Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Waste	• Used oil and lubricant discharged from the maintenance of vehicles and machines.	2	4	1	2	14	Very Low	• Reduce the risk of contamination from fuels, oils and hazardous wastes • Response effectively to incident and accident	• Proper inspection and maintenance in storage of hazardous waste. • Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. • The empty chemical containers will hand over to suppliers for recycle or appropriate disposal • The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (eg., DOWA and YCDC)

6. ENVIRONMENTAL MANAGEMENT PLAN

6.1. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

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

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

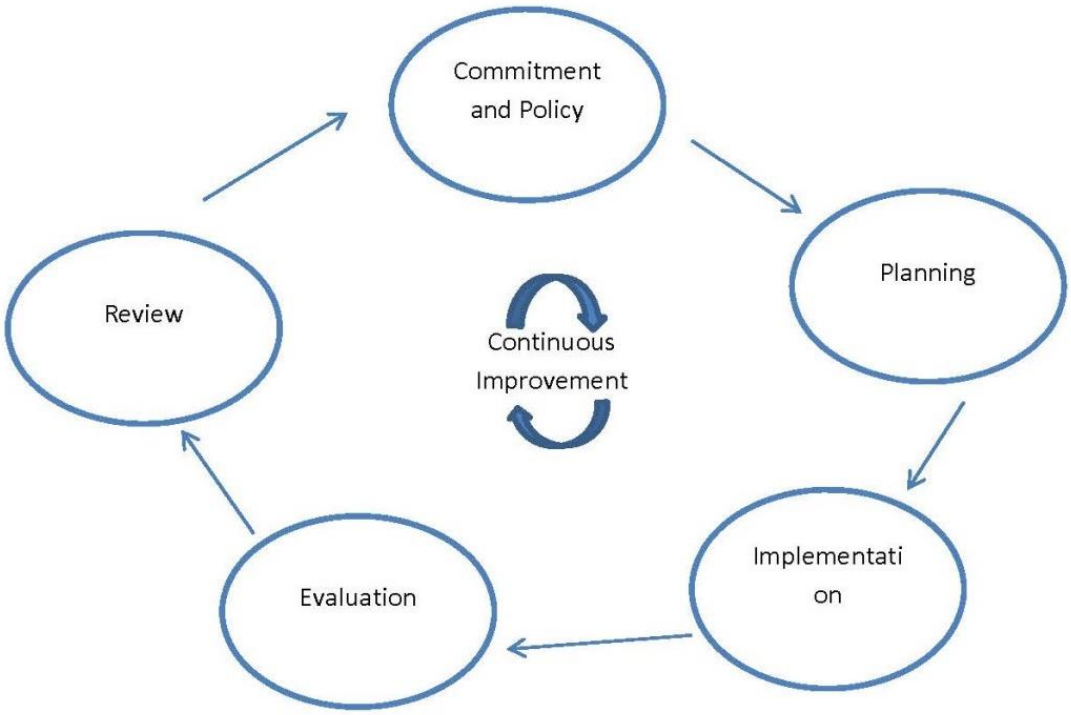


Figure 6-1 Continuous Improvement Circle

- **Commitment and Policy** – Top management commits to environmental improvement and establishes the organization's environmental policy. The policy is the foundation of the EMS.

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

6.1.1. Institutional Requirement

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

6.1.2. Responsibilities of the EMP

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

Sakura Garment Co., Ltd.: The proponent will be charged with the responsibility for ensuring that the proposed development has been accomplished in an environmentally sound manner. This can be achieved by inclusion of environmental specifications in the tender specifications, selection of environmentally conscious contractors, and supervision to ensure that the objectives of this EMP are met. The implementation of Environmental Management Plan (EMP) process will prepare and follow

up by appointed persons for health, safety, and environmental management under the instruction of management team of Sakura Garment Co., Ltd. for EMP implementation facilities.

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

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

6.1.3. Structure and Responsibilities for the EMP Development and Implementation

The HSE officer is responsible to the HSE components of the project and on matters relating to the implementation of the EMP throughout operation life. The S&E officer will have responsibilities that include:

- Ensure a monitoring system is in place to track and report all health, safety and environmental incidents;
- Carry out a thorough initial site inspection of environmental controls prior to work commencement;
- Record and provide a written report to the General Manager and production team of non-conformances with the EMP and require the HR supervisor to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

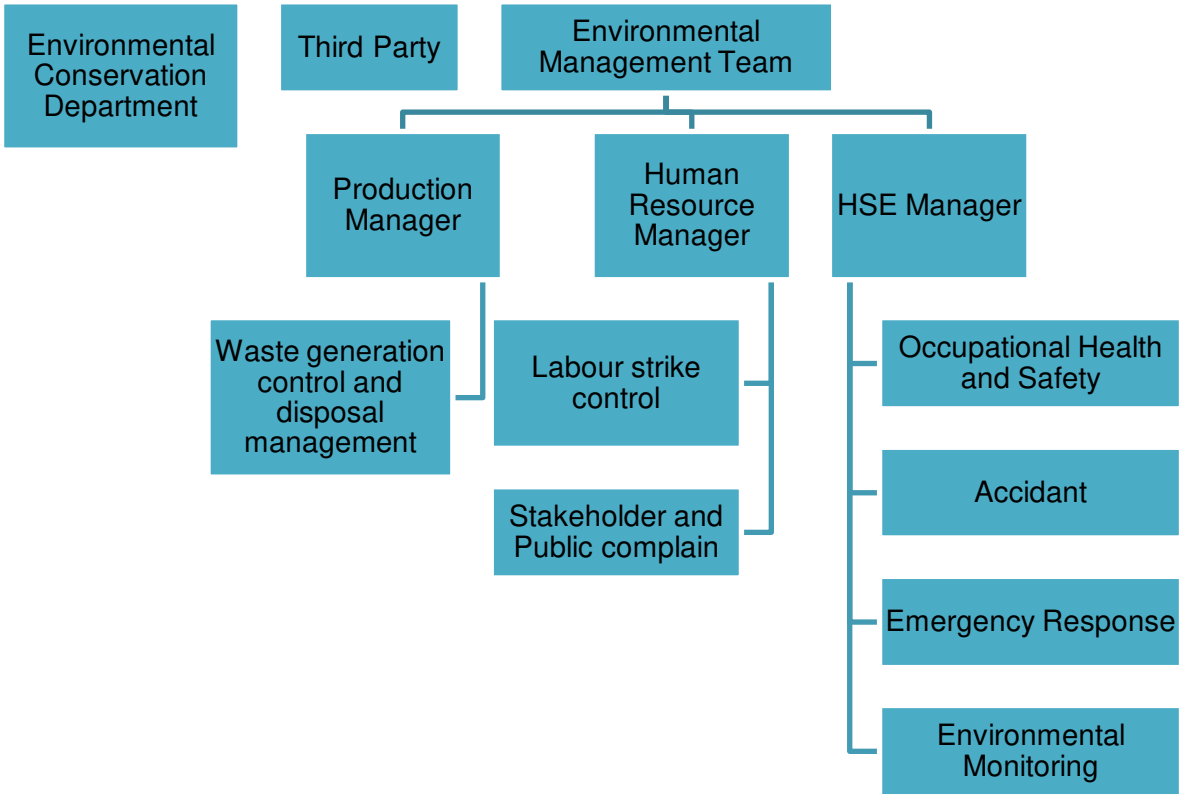


Figure 6-2 Organization Structure of Environmental Management Plan

6.2. ENVIRONMENTAL MANAGEMENT PROCESS

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

Table 6-1 Mitigation and Monitoring process in Operation Phase

Categories	Potential Impact	Mitigation and Enhancement		Inspection		
		Measures	Responsible person	Type	Frequency	Supervision team
Air	Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission from emergency diesel generator and vehicle movement	To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. The factory uses chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. Ensuring vehicles, compressor and generator are well maintained.	HSE manager	Regular check	Monthly	Environmental Management Team of Sakura Garment Co., Ltd.
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.	HSE manager Operation Manager	Regular Check	Monthly	Environmental Management Team of Sakura Garment Co., Ltd.
Occupational Safety	Accidental cases cause by operating machines.	First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for	HSE manager	Regular Check	Monthly	Environmental Management Team of

Categories	Potential Impact	Mitigation and Enhancement		Inspection		
		Measures	Responsible person	Type	Frequency	Supervision team
	Unloading, mixing, cutting, pressing and packaging activities. Accidental cases of thermic fluid heater	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.				Sakura Garment Co., Ltd.
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 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	HSE manager	Arrangement for requirements, restriction and regular check awareness program	Half a year	Environmental Management Team of Sakura Garment Co., Ltd.
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 YCDC's service.	Operation Manager	Regular Check	Weekly	Environmental Management Team of Sakura Garment Co., Ltd.
Liquid Waste	Septic system and sewage. Domestic liquid waste disposal from office, kitchen and	Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can	HSE Manager Operation	Regular check	Half a Year	Environmental Management Team of

Categories	Potential Impact	Mitigation and Enhancement		Inspection		
		Measures	Responsible person	Type	Frequency	Supervision team
	dormitory.	decrease these contaminations.	Manager			Sakura Garment Co., Ltd.
Hazardous Waste	Used oil and lubricant discharged from the maintenance of vehicles and machines.	Proper inspection and maintenance in storage of hazardous waste. Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. The empty chemical containers will hand over to suppliers for recycle or appropriate disposal The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (eg., DOWA and YCDC)	HSE Manager Operation Manager	Restrictions and regular check	Daily	Environmental Management Team of Sakura Garment Co., Ltd.

6.3. ENVIRONMENTAL MONITORING SCHEDULE AND REPORTING

The EMoP cell members responsible may conduct daily, weekly or monthly general inspections of the project area and facilities. The objectives are to identify non-compliances to EMoP. Table 6-2 is provided the environmental monitoring schedule for Sakura Garment Co., Ltd. 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 6-2 Environmental Monitoring Process

Issues	Parameter	Frequency	Area to be monitored	Responsible Organization
Operation Phase				
Common	Monitoring of mitigation measures (Table 6-1)	Yearly (3 years after operation)	The project	Environmental Management Team's Sakura Garment Co., Ltd.
Air quality	SO2, NO2, CO, CO2, PM2.5, PM10	Biannually monitoring and reporting to ECD (first 3 years after operation)	One point in the factory	Environmental Management Team of Sakura Garment Co., Ltd.
Waste Generation	Solid waste, Liquid waste and Hazardous waste	weekly	Recycle house and waste house and at the factory office	Environmental Management Team of Sakura Garment Co., Ltd.
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	At the factory	Environmental Management Team of Sakura Garment Co., Ltd.
Light intensity	Illuminance	Monthly	At the production line (especially cutting and QC)	Environmental Management Team of Sakura Garment Co., Ltd.
Decommissioning Phase				
Air quality	SO2, NO2, CO, CO2, PM2.5, PM10	One time during this phase	One point in the production area	Land Owner
Noise	Noise level in decibel (dBA)	One time during this phase	One points in demolishing area	Land Owner
Rehabilitation	Recovering and Revegetation		All decommissioning area	Land Owner

6.4. BUDGET PLAN FOR ENVIRONMENTAL MANAGEMENT AND MONITORING

This section describes the budget plans for the environmental management and environmental monitoring by the project proponent. On the other hand, Sakura Garment Co., Ltd. will take necessary environmental mitigation measures and its expenses for the environmental management not only at the construction and operation phases but also at the closing phase in accordance with their responsibility for the studies of recommendation.

The following table shows the expenditures for the implementation of Environmental Management Plan for operation phase annually. Estimation cost for EMP implementation is presented in Table 6-3.

Table 6-3 Cost E stimation for EMP implementation

No	Item	Frequency/Times	Cost (MMK)
Mitigation Plan			
1	Maintenance of air ventilation system	Once per year	600,000 per year
2	Grass plantation within the area of factory compound	Once per three months	100,000 per three months
3	Solid waste disposal	12	20,000 per month
4	Purchase of Personal Protective Equipment (PPE)	Once per half a year	100,000 per month
5	Medical Check-up and Health Insurances	Once per year	600,000 per year
Monitoring Plan			
1	Air Quality	2	500,000 per year
3	Light level	2	40,000 per year
4	Environmental Monitoring report	1	500,000 lump sum

6.5. 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;

6.5.1. 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.

6.5.2. 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

6.5.3. 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

6.5.4. Fire Prevention and Protection

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

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

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

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

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

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

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

6.5.5. 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.

6.5.6. **Fire Safety and Evacuation Plan**

Fire Evacuation plans should include the following information

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

Fire Safety Plans should include the following information:

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

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

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

No.	Parameters	Proposed Capacity	Remark
1	Fire water flow	14 bars	
2	Deluging rate	12.0 liters/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.

6.5.7. 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)

6.5.8. Employee Information and Training

Employees must be informed about any operations in their work area where hazardous chemicals or materials are present. They must also be informed about the locations and availability of

the hazard communication program, list of chemicals and SDSs. Employees must receive training on the following:

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

6.5.9. Health and Safety Training Plan for Worker

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

Table 6-5 Training Plan Used in Sakura Garment Co., Ltd.

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

6.6. GRIEVANCE REDRESS MECHANISM (GRM)

People who live near the project affected area or stakeholders can complain about the problems and impacts that they suffer; they can complain though Grievance Committee, which includes the responsible persons of Sakura Garment Co., Ltd. representative from Hlaing Tharyar Industrial Zone 3 and representative from General Administration Department (Hlaing Tharyar

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

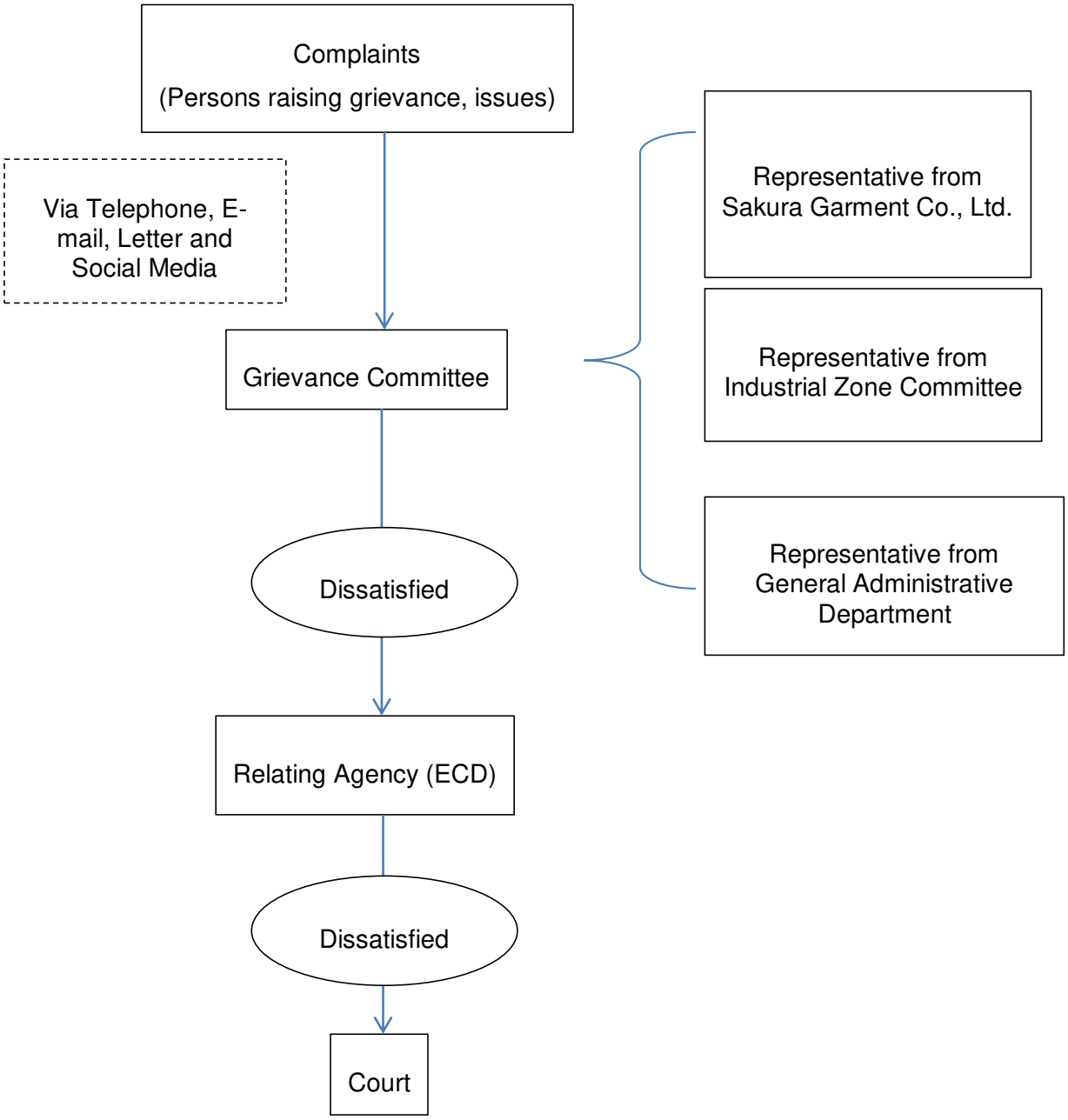


Figure 6-3 Grievance Redress Mechanism flow diagram

6.7. 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 Sakura Garment factory 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.

Sakura Garment has a plan to implement and donate 2 percent of the profit per year for Corporate Social Responsibility (CSR) and Employee Welfare Arrangement (Table 6-6).

Table 6-6 CSR Plan at Sakura Garment Co., Ltd.

Area	Priority item	Contribution (%)	Detail targets
Health	Healthcare for employees and their family	0.8 %	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	0.8 %	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	0.4%	• Donate to local charities with a worthy cause • Actively participate in community events • Encourage staff to participate, and to form a community engagement team to actively support community events • Embedding understanding and consciousness about human rights issues among the employees • Development of sexual harassment and power harassmentll (workplace bullying & harassment) prevention efforts

7. PUBLIC CONSULTATION

7.1. PUBLIC CONSULTATION PROCESS

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

Public consultation during preparation of EMP report was conducted on 20, November 2018, following the EIA procedure.

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

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

Relevant key office at the regional level is Yangon City Development Committee (YCDC), Hlaing Tharyar Township Administrative Office, Fire Department, Factories and General Labour Law Inspection Department, Yangon City Development Committee (Cleaning Department and Industrial Zone management office.

Public consultation carried out after the presentation on the project, followed by questions, answers and discussion. U Lin Htet Sein presented EMP study and findings from Myanwei, after the presentation following question and answer section. Summary of public consultation meeting is presented Table 7-1. Figure 7-1 Is shown the consultation meeting photo. **(PCM attendant list and presentation power point slide are described in Appendix E)**

Table 7-1 Summary of Public Consultation Meeting

Time and Date	Monday, 29 October 2018 9:30-12:00
Venue	Meeting Hall, SKY Hotel, Hlaing Thar Yar Township, Yangon.
Agenda	• Presentation on the Background Information of Project, • Project Description, • Impact Assessment, Environmental Mitigation • Environmental Management Plan and Monitoring Plan • Received and Answer from feedback of participants

Figure 7-1 Public Consultation Meeting

7.2. RECOMMEND SUGGESTION AND COMMENT

After the presentation, the floor opened for questions and answers. There is no suggestion and comment for presentation and EMP draft report, because the project is sample manufacturing of

garment (CMP basic). In addition, ECD were suggesting for the occupational health and safety, during project implementation about project planning and environmental issues. Summary of main suggestion is provided in Table 7-2.

Table 7-2 Suggestions and Comments on Proposed Project

Suggestions	Answers
By Daw Htaw, Environmental Conservation Department, Yangon Division. • To provide PPE for specific sector of operation • Train to employee for health and safety awareness • To provide medical check-up and clinic support for employee	By Daw Aye Aye Thet, Admin Manager Sakura Garment Co., Ltd. • Already provided for PPE include steel glove for cutting section, face mask for cutting section and house keeper, and other related PPE support for employees. • Social Security Board department was train to employee in the factory • Factory already have the medical clinic and support medicine for employees
Questions	Answers
By Daw Htaw, Environmental Conservation Department, Yangon Division. • Where do you measure the noise level for the factory? • How to describe raw material requirement by annual or daily? • How to keep raw fabric and product cloths in warehouse?	By Lin Htet Sein, Environmental Consultant Myanwei Consulting Co., Ltd. • Noise level measurement was taken in the operation building during working hours. • Light quality was also measured all operation section during working hours • Annual raw material requirement was presented in main EMP report • Raw fabric and product goods was stored for seasonally requirement of production by separated building

The project is located in Hlaing Tharyar Industrial Zone 3, Hlaing Tharyar Township and there are no local people affected by project. The project information and this EMP will be accessible to public and stakeholders via

Myanwei website www.myanweiconsulting.com

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

8. CONCLUSION AND RECOMMENDATION

Environmental Management Plan (EMP) has been prepared for Sakura Garment factory is located at Plot No. 74, Phen Chet Wun U Shwe Owe Street, Hlaing Tharyar Industrial Zone (3), Hlaing Tharyar Township, Yangon region. The main objective of the study is focused specially on the required environmental management measures or creating environmentally friendly workplace. An EMP has been carried out for the factory according to the requirement of the proponent as it has been made for garments manufacturing factory.

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

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

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

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

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

It is recommended that;

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

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

APPENDIX A
Sakura Garment Co., Ltd.

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်

မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်

၁၉၉၆ ခုနှစ်၊ အောက်တိုဘာလ ၁၅ ရက်စွဲပါ ခွင့်ပြုမိန့်အမှတ် (၂၁၉/၁၉၉၆) တွင်

ပြင်ဆင်ချက်

၂၀၂၂ ခုနှစ်၊ ဇူလိုင်လ ၁၁ ရက်နေ့တွင် ကျင်းပပြုလုပ်ခဲ့သော မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင် ၏ (၃/၂၀၂၂) ကြိမ်မြောက် အစည်းအဝေးဆုံးဖြတ်ချက်အရ CMP စနစ်ဖြင့် အထည်ချုပ်လုပ်ငန်း ဆောင်ရွက်လျက်ရှိသော Sakura Garment Company Limited ၏ ခွင့်ပြုမိန့်ပါ ရင်းနှီးမြှုပ်နှံခွင့်ပြုသည့်သက်တမ်းကို ၂၀၂၁ ခုနှစ်၊ အောက်တိုဘာလ ၁၅ ရက်နေ့မှ ၂၀၂၆ ခုနှစ်၊ အောက်တိုဘာလ ၁၄ ရက်နေ့အထိ နောက်ထပ် ၅ နှစ် ထပ်မံတိုးမြှင့် ပြင်ဆင်လိုက်သည်။

(ဠ) **ရင်းနှီးမြှုပ်နှံခွင့်ပြုသည့်သက်တမ်း** ၂၀ နှစ် + ၅ နှစ် + ၅ နှစ် (၂၀၂၁ ခုနှစ် အောက်တိုဘာလ ၁၅ ရက်နေ့မှ ၂၀၂၆ ခုနှစ် အောက်တိုဘာလ ၁၄ ရက်နေ့အထိ)

ဥက္ကဋ္ဌ(ကိုယ်စား)

(သန့်စင်လွင်၊ အတွင်းရေးမှူး)

ရက်စွဲ၊ ၂၀၂၂ ခုနှစ်၊ ဩဂုတ်လ ၃၀ ရက်

နေရာ၊ ရန်ကုန်မြို့

APPENDIX B
Transitional Consultant Registration Certificate

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

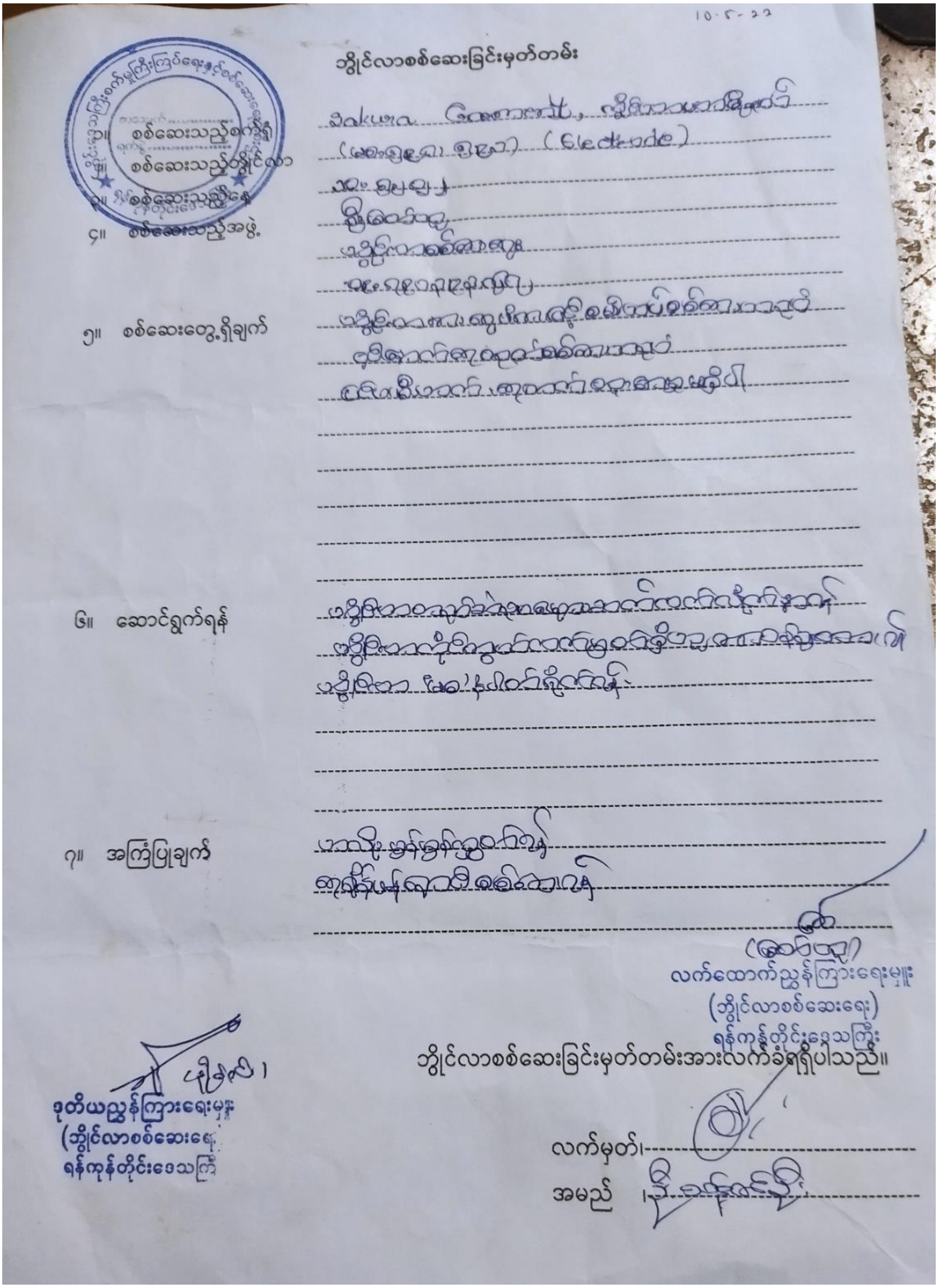
No. 10048 Date 07 JUL 2017

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the person under Environmental Impact Assessment Procedure, Notification No. 616/2015.
(ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၅၁၆/၂၀၁၅ အရ သယ်ဇောတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို လူပုဂ္ဂိုလ်အားထုတ်ပေးလိုက်သည်။)

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

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

APPENDIX C
Boiler Certificate


10.5.22

ဘွိုင်လာစစ်ဆေးခြင်းမှတ်တမ်း

၁။ စစ်ဆေးသည့်ရက် Sakura Garment,
၂။ စစ်ဆေးသည့်ဘွိုင်လာ (Electrode)
၃။ စစ်ဆေးသည့်နေရာ
၄။ စစ်ဆေးသည့်အဖွဲ့
၅။ စစ်ဆေးတွေ့ရှိချက်
၆။ ဆောင်ရွက်ရန်
၇။ အကြံပြုချက်

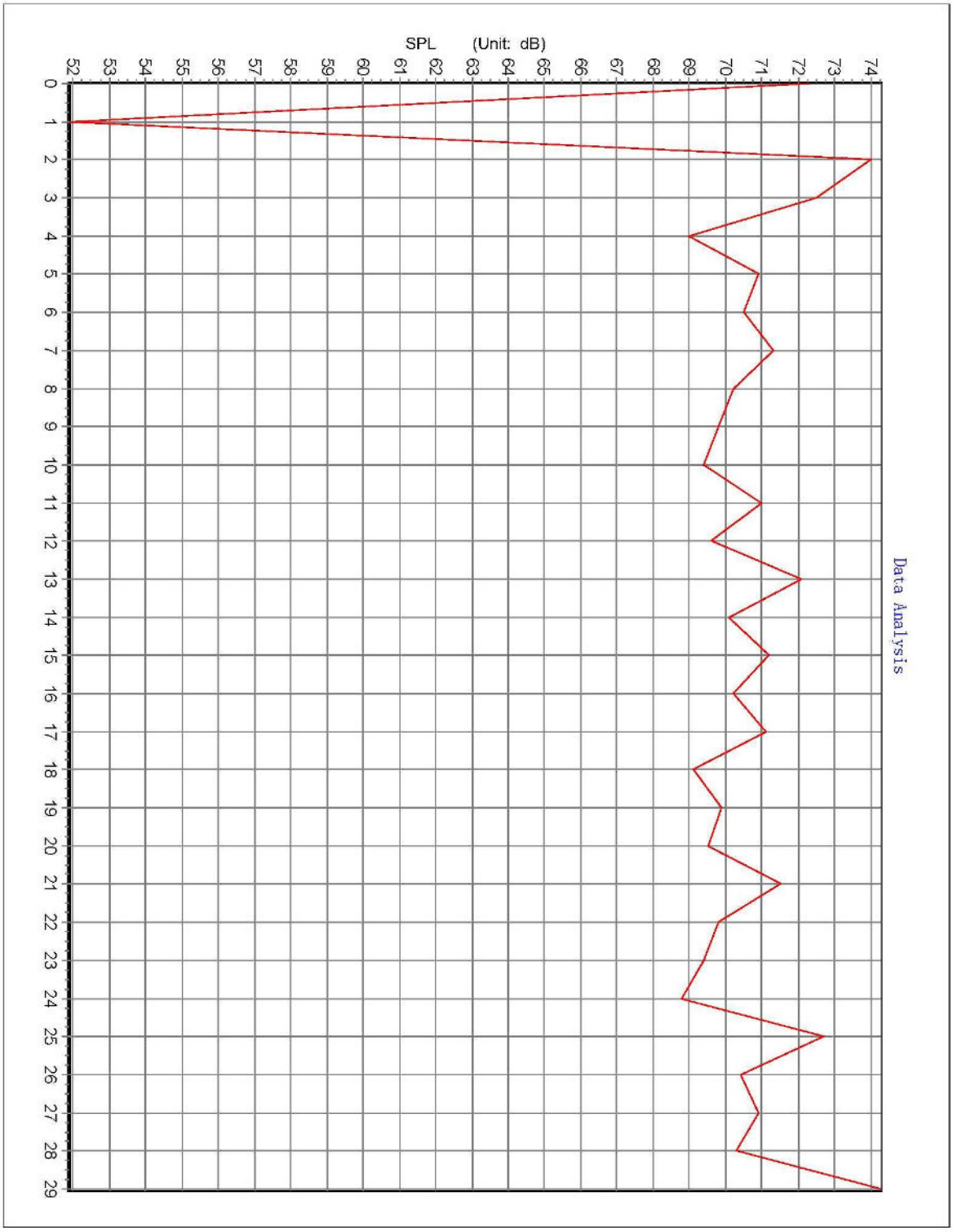
လက်ထောက်ညွှန်ကြားရေးမှူး
(ဘွိုင်လာစစ်ဆေးရေး)
ရန်ကုန်တိုင်းဒေသကြီး

ဒုတိယညွှန်ကြားရေးမှူး
(ဘွိုင်လာစစ်ဆေးရေး)
ရန်ကုန်တိုင်းဒေသကြီး

ဘွိုင်လာစစ်ဆေးခြင်းမှတ်တမ်းအားလက်ခံရရှိပါသည်။

လက်မှတ်၊
အမည် ၊

APPENDIX D
Noise Level Result



Rec No	Mea Value	Weight	Time	Date	Data Group Index
1	72.3	A	15:8:9	2018-10-13	0
2	51.9	A	15:8:10	2018-10-13	0
3	74	A	13:31:3	2018-10-13	0
4	72.5	A	13:32:3	2018-10-13	0
5	69	A	13:33:3	2018-10-13	0
6	70.9	A	13:34:3	2018-10-13	0
7	70.5	A	13:35:3	2018-10-13	0
8	71.3	A	13:36:3	2018-10-13	0
9	70.2	A	13:37:3	2018-10-13	0
10	69.8	A	13:38:3	2018-10-13	0
11	69.4	A	13:39:3	2018-10-13	0
12	71	A	13:40:3	2018-10-13	0
13	69.6	A	13:41:3	2018-10-13	0
14	72.1	A	13:42:3	2018-10-13	0
15	70.1	A	13:43:3	2018-10-13	0
16	71.2	A	13:44:3	2018-10-13	0
17	70.2	A	13:45:3	2018-10-13	0
18	71.1	A	13:46:3	2018-10-13	0
19	69.1	A	13:47:3	2018-10-13	0
20	69.9	A	13:48:3	2018-10-13	0
21	69.5	A	13:49:3	2018-10-13	0
22	71.5	A	13:50:3	2018-10-13	0
23	69.8	A	13:51:3	2018-10-13	0
24	69.4	A	13:52:3	2018-10-13	0
25	68.8	A	13:53:3	2018-10-13	0
26	72.7	A	13:54:3	2018-10-13	0
27	70.4	A	13:55:3	2018-10-13	0
28	70.9	A	13:56:3	2018-10-13	0
29	70.3	A	13:57:3	2018-10-13	0
30	74.3	A	13:58:3	2018-10-13	0
	70.12				

APPENDIX E
Light Result

No. 28, Myay Nu Street, Myay Ni Gone, Sanchaung Township, Yangon
Office: (+95) 1 526574, Mobile: (+95) 9775495118

Project Overview

A. General

Project Name:	Environmental Management Plan Report of Sakura Garment Co., Ltd.
Project Location:	Plot No. 74, Phen Chet Wun U Shwe Owe Street, Hlaing Tharyar Industrial Zone (3), Hlaing Tharyar Township, Yangon region.
Person in Charge:	Mr. Lin Htet Sein
Sampling Source:	Operation area
Sampling Date:	13, October 2018
Sampling Time:	From 10:00 to 18:00 (GMT +6:30)
Sampling Condition:	Good
Sampling By:	Environmental Team Represented By Myanmar Consulting Group Co.,Ltd.

B. Equipment

Instrument	Type	Sampling Rate	Monitoring Location
Uni-T (Luminometer)	UT380 Series	100 times/second	Operation Area (Indoor)

C. Raw Data

Area	Time of Activity	Luminance (LUX)	Standard
Sewing Line A-1	Operation period	738	600
Sewing Line A-2		325	600
Sewing Line B-1		395	600
Sewing Line B-2		423	600
Sewing Line C		338	600
Sewing Line D		387	600
Sewing line 6		277	200
Cutting		462	400
Quality Control		574	900
Packing		124	100

Approved & Checked By

Mr. Lin Htet Sein
Environmental Consultant

Dr. Hein Lynn Aung
Director

APPENDIX F
Public Consultation

Attendant List

တွေ့ဆုံဆွေးနွေးပွဲ အခမ်းအနားသို့ တက်ရောက်သူစာရင်း

နေ့စွဲ - ၂၀ရက်၊နိုဝင်ဘာလ၊ ၂၀၁၈ ခုနှစ်

စဉ်	အမည်	ရာထူး	ဌာန / အဖွဲ့အစည်း	ဆက်သွယ်ရန်	လက်မှတ်
	May Sandar	Accountant	Sakura Garment	09 795829249	
	Aye (11) Phet	Finance Manager	Sakura Garment	09421030508	
	Nyo Min Thant	Production Manager	Orange Garment	09 777374649	
	ဒေါ်ငွေ	ဦးစီးအရာရှိ	ရန်ကုန်တိုင်းဒေသကြီး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန	09-256359169	
	ဒေါ်ယုယုဖြိုး	ဒု-ဦးစီးမှူး	မြောက်ပိုင်းခရိုင်၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန	09-951088421	
	ဦးအောင်မျိုးလွင်	အငယ်တန်းစာရေး	မြောက်ပိုင်းခရိုင်၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့် သန့်ရှင်းရေးဌာန	09-795917687	
	ဦးမြင့်ဦး	ဒု / ကြီးမှူး	〃	09-952365519	
	[illegible]	Manager	Zong Hong အထည်ချုပ်	09-788143879	
	Su May Phyu	F.O	Sky Hotel.	09-794803077	

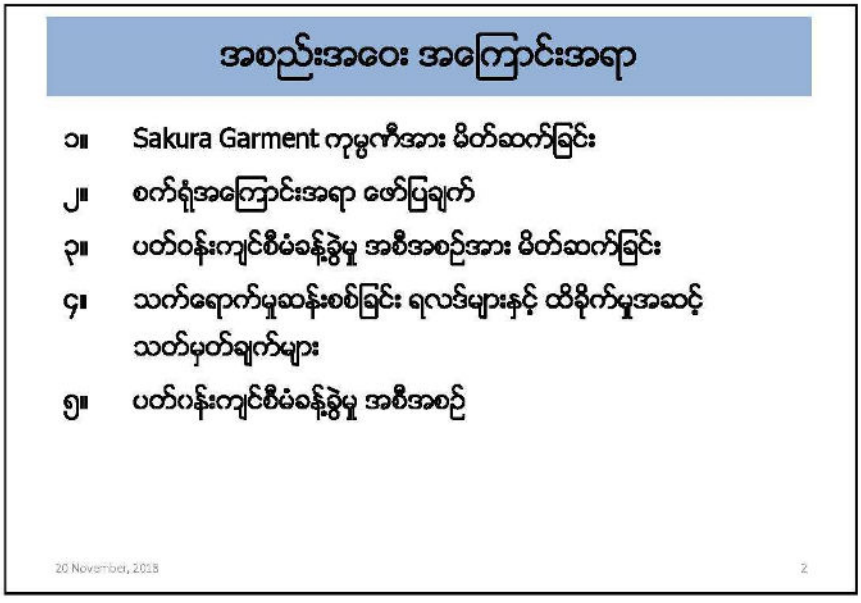
တွေ့ဆုံဆွေးနွေးပွဲ အခမ်းအနားသို့ တက်ရောက်သူစာရင်း

နေ့စွဲ - ၂၀ရက်၊နိုဝင်ဘာလ၊ ၂၀၁၈ ခုနှစ်

စဉ်	အမည်	ရာထူး	ဌာန / အဖွဲ့အစည်း	ဆက်သွယ်ရန်	လက်မှတ်
	ဦးစောထူး	Ass; Manager. SKY HOTEL.	Hotel.	0978868590	

Presentation Power Point

20-Nov-18



20-Nov-18

(၁) Sakura Garment ကုမ္ပဏီအား မိတ်ဆက်ခြင်း

20 November, 2018 3

Sakura Garment Co., Ltd.

- Sakura Garment Co., Ltd. သည် လက်ခစား (CMP) စနစ်ဖြင့် အထည်ချုပ်လုပ်ခြင်း လုပ်ငန်းအတွက် မြန်မာနိုင်ငံတွင် ရင်နှီးမြှုပ်နှံသော ကုမ္ပဏီအသစ်ဖြစ်ပါသည်။
- မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကောမတီ(MIC)မှ ၁၉၉၆ခုနှစ်၊ အောက်တိုဘာလ၊ ၁၅ ရက်နေ့တွင် (ခွင့်ပြုမိန့်အမှတ် ၂၁၉/၉၆)ဖြင့် ခွင့်ပြုချက်ရရှိပြီးဖြစ်ပါသည်။
- မြန်မာနိုင်ငံ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂)၊ နည်းဥပဒေ (၅၅)အရ၊ နည်းဥပဒေ မထုတ်ပြန်မီက တည်ထောင်ထားသော စီမံကိန်းဖြစ်သော်လည်း ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (EIA) လုပ်ထုံးလုပ်နည်း (၂၀၁၅)နှင့်အညီ ပတ်ပန်းကျင်ထိန်းသိမ်းရေးအစီအစဉ်မူကြမ်း (EMP)ကို ရေးဆွဲခဲ့ခြင်းဖြစ်ပါသည်။

20 November, 2018 4

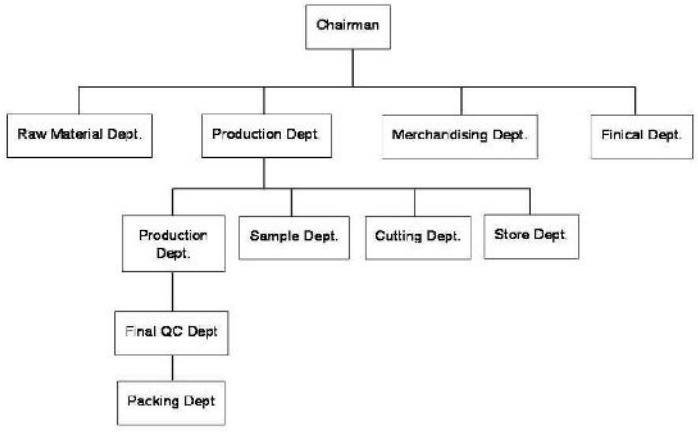
20-Nov-18

စီမံကိန်းအကြောင်းအရာအကျဉ်း

လုပ်ငန်းအမျိုးအစား	(CMP) လခစားစနစ်ဖြင့် အထည်အမျိုးမျိုးထုတ်လုပ်သည့်လုပ်ငန်း
ရင်းနှီးမြှုပ်နှံမှု	၁၀၀ ရာခိုင်နှုန်း နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု (Japan)
မြေအမျိုးအစား	စက်မှုနယ်မြေ
မြေဧရိယာ	၁ ဒသမ ၈၂၆ ဧက
အဆောက်အဦး	၁၁၈′ × ၂၃၆′ တစ်ထပ်အဆောက်အအုံ (ရုံးခန်းနှင့် ကုန်ထုတ်လုပ်မှု) ၅၀′ × ၂၄၀′ တစ်ထပ်အဆောက်အအုံ (ကုန်ကြမ်းနှင့် ကုန်ချောသိုလှောင်ရုံ)
စက်ရုံလိပ်စာ	အမှတ် ၇၄၊ ဖန်ချပ်ဝန်ဦးဧရိယာ၊ လှိုင်သာယာစက်မှုဇုန် (၃)၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး။

20 November, 2018 5

Sakura Garment ကုမ္ပဏီ၏ ဖွဲ့စည်းပုံ



20 November, 2018 6

20-Nov-18

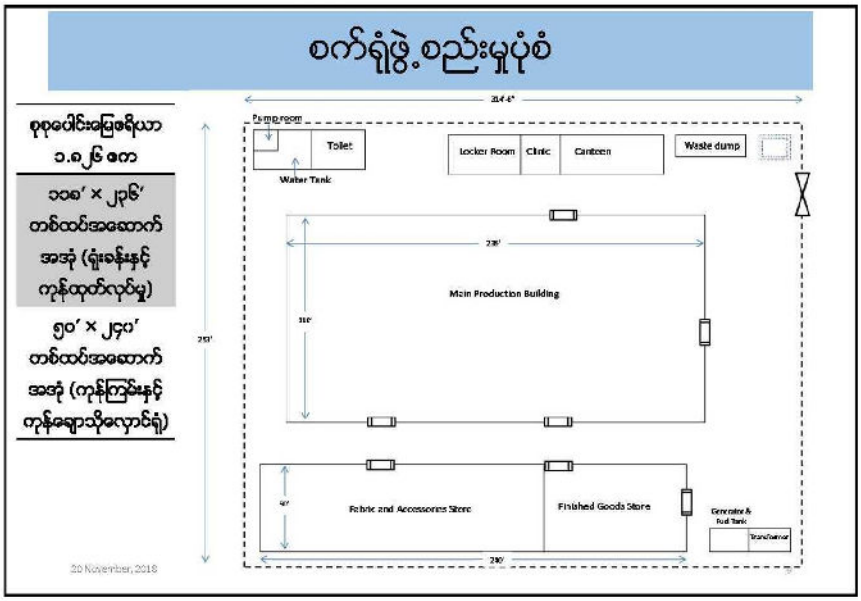
(၂) စက်ရုံအကြောင်းအရာ ဖော်ပြချက်

20 November, 2018 7

စက်ရုံတည်နေရာ

20 November, 2018 8

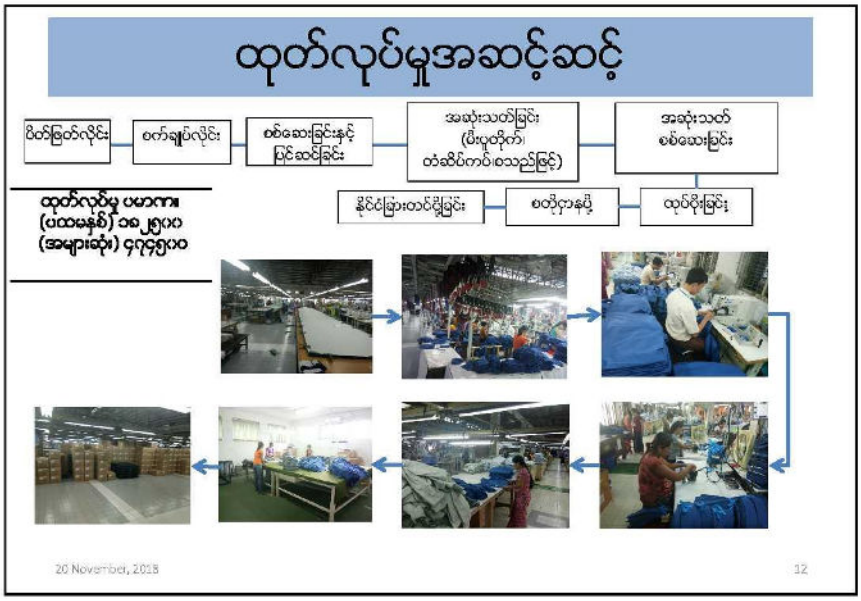
20-Nov-18


စက်ရုံဖွဲ့စည်းမှုပုံစံ
စုစုပေါင်းအပြေရိယာ
၁.၈၆ ဧကာ
၁၀၈′ × ၂၃၆′
တစ်ထပ်အဆောက်
အအုံ (ရုံးခန်းနှင့်
ကုန်ထုတ်လုပ်မှု)
၅၀′ × ၂၄၀′
တစ်ထပ်အဆောက်
အအုံ (ကုန်ကြမ်းနှင့်
ကုန်ချောသိုလှောင်ရုံ)
Pump room
Toilet
Water Tank
Locker Room
Clinic
Canteen
Waste dump
Main Production Building
Fabric and Accessories Store
Finished Goods Store
Generator & Fuel Tank
Transformer
20 November, 2018

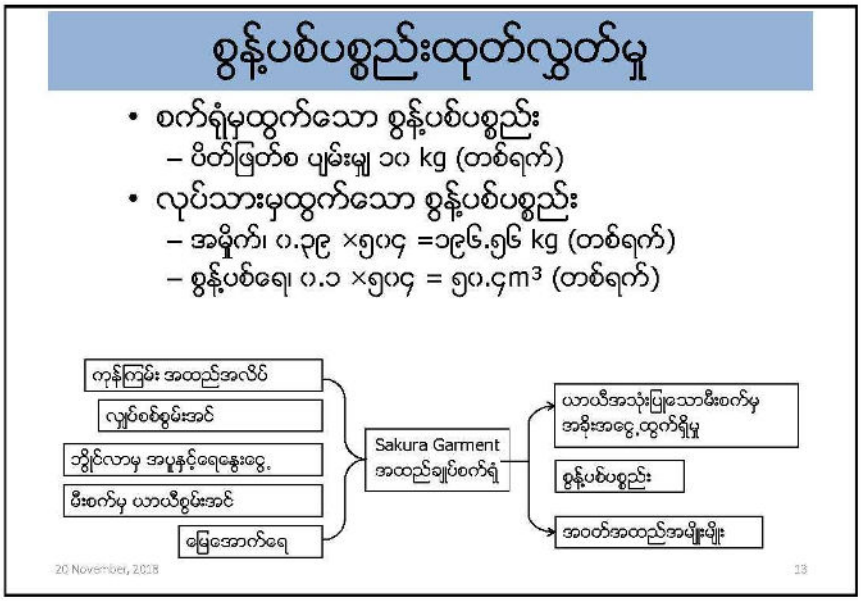

စက်ရုံအတွက် အသုံးပြုမှု
လူဦးရေ
• ၃၀၀(ပထမနှစ်)၊ ၅၀၄(အများဆုံး)
ရေအသုံးပြုမှု
• အဝီစိတွင်းရေ
• ရေသန့်စက်ဖြင့် သန့်စင်ပြီး သုံးရေအတွက်အသုံးပြုသည်၊
• မီးသတ်ရေကန် သီးသန့်ထားရှိပါသည်၊
လျှပ်စစ် အသုံးပြုမှု
• ၄၀၀ KVA Transformer
• ၅၀၀ KVA နှင့် ၆၂၅ KVA မီးစက် နှစ်လုံး
ဘွိုင်လာ
• ဟစ်နာရီ ၃၆ ကီလိုဂရမ် ၁၈ ကီလိုဂရမ် ရေနွေးငွေ့ထုတ်နိုင်သော ဘွိုင်လာ နှစ်လုံး
20 November, 2018
10

20-Nov-18


ဘွိုင်လာအသုံးပြုမှု ထောက်ခံချက်
20 November, 2018
11


ထုတ်လုပ်မှုအဆင့်ဆင့်
ပိတ်ခြင်းတိုင်း
စက်ချုပ်လိုင်း
စစ်ဆေးခြင်းနှင့် မြင်ဆင်ခြင်း
အသုံးသတ်ပြင်း (ပီးပူတိုက်၊ တံဆိပ်ကပ်၊စသည်ဖြင့်)
အသုံးသတ် စစ်ဆေးမြင်း
ထုတ်လုပ်မှု ပမာဏ၊ (ပထမနှစ်) ၁၈၂၅၀၀ (အများဆုံး) ၄၇၄၅၀၀
နိုင်ငံခြားတင်ပို့မြင်း
စတိုင်္ဂာနပို့
ထုပ်ပိုးမြင်း
20 November, 2018
12

20-Nov-18


စွန့်ပစ်ပစ္စည်းထုတ်လွှတ်မှု
• စက်ရုံမှထွက်သော စွန့်ပစ်ပစ္စည်း
– ပိတ်ဖြတ်စ ပျမ်းမျှ ၁၀ kg (တစ်ရက်)
• လုပ်သားမှထွက်သော စွန့်ပစ်ပစ္စည်း
– အမှိုက်၊ ၀.၃၉ ×၅၀၄ =၁၉၆.၅၆ kg (တစ်ရက်)
– စွန့်ပစ်ရေ၊ ၀.၁ ×၅၀၄ = ၅၀.၄m³ (တစ်ရက်)
ကုန်ကြမ်း အထည်အလိပ်
လျှပ်စစ်စွမ်းအင်
ဘွိုင်လာမှ အပူနှင့်ရေငွေ့
မီးစက်မှ ယာယီစွမ်းအင်
ဓမ္မအောက်ရေ
Sakura Garment
အထည်ချုပ်စက်ရုံ
ယာယီအသုံးပြုသောမီးစက်မှ
အခိုးအငွေ့ထွက်ရှိမှု
စွန့်ပစ်ပစ္စည်း
အဝတ်အထည်အမျိုးမျိုး
20 November, 2018
13


(၃) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု
အစီအစဉ်အားမိတ်ဆက်ခြင်း
20 November, 2018
14

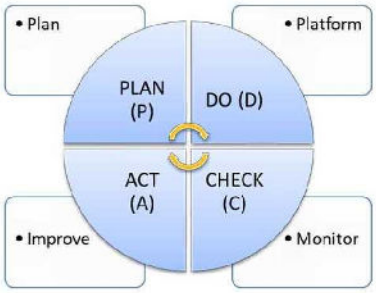
20-Nov-18

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်ပြုလုပ်ခြင်း

- ၂၀၁၅ ခုနှစ် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်းများအရ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ပြုလုပ်ရန် လိုအပ်ကြောင်း ညွှန်ကြားခဲ့ပါသည်။
- ထို့ကြောင့် EMP အစီအရင်ခံစာရေးဆွဲရန် တတိယအဖွဲ့အစည်းဖြစ်သော မြန်ဝေ ကွန်ဆော့တင်း ကုမ္ပဏီလီမိတက် (Myanwei Consulting Co., Ltd.)မှ တာဝန်ယူရေးဆွဲခဲ့ပါသည်။
- EMP အစီအစဉ်များကို အကောင်အထည်ဖော်ရန်အတွက် Sakura Garment Co., Ltd. သည် စက်ရုံတွင် ကျန်းမာရေး၊ ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ဇလျှုံချရေး၊ ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှုတို့အတွက် အဖွဲ့အစည်းတစ်ခုထားရှိပြီး စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်များကို အကောင်အထည်ဖော် ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။

20 November, 2018 15

စီမံခန့်ခွဲမှုပုံစံ



(P) အစီအစဉ်ရေးဆွဲခြင်း
စီမံကိန်းဆောင်ရွက်သည့်ကာလတစ်လျှောက် EMP အစီအစဉ်ကို စံချိန်စံညွှန်းများနှင့်အညီ စနစ်တကျရေးဆွဲခြင်း

(D) အကောင်အထည်ဖော်ခြင်း
စီမံကိန်းမှ EMP အစီအစဉ်များကို အကောင်အထည်ဖော် ဆောင်ရွက်ခြင်း

(C) စောင့်ကြပ်ကြည့်ရှုခြင်း
သက်ဆိုင်ရာပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုသူများမှ စစ်ဆေးမှတ်တမ်းရယူခြင်း၊

(A) စစ်ဆေးခြင်း
စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးပြီးရလဒ်များကို ပိုမိုကောင်းမွန်သော အခြေအနေသို့ရောက်ရှိရန် မြှုပြင်မွမ်းမံခြင်း ။

20 November, 2018 16

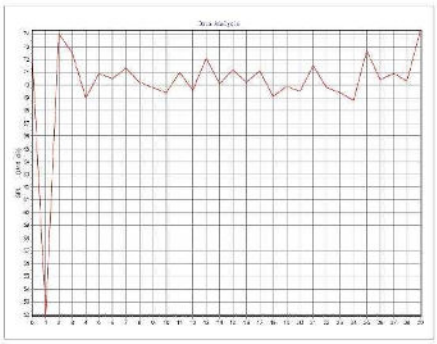
20-Nov-18

(၄) သက်ရောက်မှုဆန်းစစ်ခြင်း ရလဒ်များနှင့် ထိခိုက်မှုအဆင့် သတ်မှတ်ချက်များ

20 November, 2018 17

ဆူညံသံတိုင်းတာမှု

- စက်ရုံအတွင်းတိုင်းတာမှု ရက်စွဲ =၁၃၊ ၁၀၊၂၀၁၈
- တိုင်းတာမှုရလဒ်=၇၀.၁၂ dBA



20 November, 2018 18

20-Nov-18

အလင်းရောင်တိုင်းတာမှု

- စက်ရုံအတွင်းတိုင်းတာမှု ရက်စွဲ =၁၃၊ ၁၀၊၂၀၁၈

No	Location	Measure value(Lux)	Standard*
1	Sewing Line A-1	738	600
2	Sewing Line A-2	325	600
3	Sewing Line B-1	395	600
4	Sewing Line B-2	423	600
5	Sewing Line C	338	600
6	Sewing Line D	387	600
7	Scrap gluing area	277	200
8	Cutting	462	400
9	Quality Control	574	900
10	Packing	124	100

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

20 November, 2018

သက်ရောက်မှုအဆင့်သတ်မှတ်ပုံ

စီမံကိန်းကာလတွင် ဖြစ်နိုင်ခြေရှိသော ထိခိုက်မှုများကို အဆင့်သက်မှတ်ချက် (၄) ခုဖြင့် ခွဲခြားသတ်မှတ်ထားပါသည်။ ၄င်းတို့မှာ-

၁။ က-: သိသာသော ဆိုးကျိုးသက်ရောက်မှု
က+: သိသာသော ကောင်းကျိုးသက်ရောက်မှု

၂။ ခ-: ဆိုးကျိုးသက်ရောက်မှု အချို့ရှိခြင်း
ခ+: ကောင်းကျိုးသက်ရောက်မှု အချို့ရှိခြင်း

၃။ ဂ: အကျိုးသက်ရောက်မှု မရှင်းလင်းသဖြင့် ထပ်မံလေ့လာသင့်သည်

၄။ ဃ: အကျိုးသက်ရောက်မှု မရှိသလောက်ဖြစ်၊ ထပ်မံလေ့လာရန်မလို

20 November, 2018 20

20-Nov-18

ညစ်ညမ်းမှု

လေထုအရည်အသွေး	ဃ	မီးစက်နှင့် စက်ရုံသုံးယာဉ်များကြောင့် ပတ်ဝန်းကျင်လေထုကို ထိခိုက်စေပါသည်။ မီးစက်မှထွက်သော အခိုးအငွေ့တွင် SO, NO, CO, VOC and PM များပါဝင်ခြင်းကြောင့် ပတ်ဝန်းကျင်ကို ထိခိုက်မှု ဖြစ်စေပါသည်။ စက်ရုံတွင် မီးစက်အသုံးပြုရှိန်မှာ ပင်မလျှပ်စစ်မီးပြတ်တောက်ချိန်သာ ဖြစ်ပါသည်။
ရေထုအရည်အသွေး	ဃ	စက်ရုံ၏ ကုန်ပစ္စည်းထုတ်လုပ်မှုမှ ရေဆိုးထွက်ရှိခြင်းမရှိ၊ ဝန်ထမ်းများအသုံးပြုပြီးသော ရေသာထွက်မည်ဖြစ်သောကြောင့်ပတ်ဝန်းကျင်အပေါ် ထိခိုက်မှုမရှိကြောင်းတွေ့ရှိခဲ့ပါသည်။
ဆူညံမှု	ဂ	စက်ရုံအတွင်း ဆူညံသံတိုင်းတာမှုရလဒ်များအရ သက်မှတ်စံနှုန်းထက် ကျော်လွန်နေခြင်းမရှိကြောင်း တွေ့ရှိရပါသည်။
စွန့်ပစ်အမှိုက်	ခ	စက်ရုံမှထွက်ရှိသောအမှိုက်မှာ ပိတ်ဖြတ်စများ၊ ပိတ်လိပ်ရာတွင် အသုံးပြုသော စက္ကူလိပ်များ၊ အထည်ထုတ်ပိုးရာတွင် အသုံးပြုသော ပလက်စတစ်အိတ်၊ စက္ကူဖာ၊ အစရှိသည်တို့ဖြစ်ပါသည်။ ဝန်ထမ်းများမှ ထွက်ရှိသော ရေသန့်ဘူးခွံ ပလက်စတစ်အိတ်၊ စက္ကူ၊ tissue၊ စားကြွင်းစားကျန်၊ အစရှိသော လူသုံးအမှိုက်များ ဖြစ်ပါသည်။

ဝန်ထမ်းကျန်းမာရေးနှင့် အန္တရာယ်ကင်းရှင်းရေး

ကူးစက်ရောဂါ၊ ဥပမာ ARI, Flu, etc.	ဂ	ဖြစ်နိုင်ခြေနည်းပါးသော်လည်းလုပ်သားအင်အားဖြင့် လည်ပတ်သော စက်ရုံအမျိုးအစားဖြစ်သောကြောင့် စက်ရုံတွင် ကျန်းမာရေး အသိပညာပေးမှုနှင့် ကျန်းမာရေး စောင့်ရှောက်မှုရှိရန် လိုအပ်ကြောင်း တွေ့ရှိခဲ့ပါသည်။
လုပ်ငန်းခွင်အန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေး	ဂ	ထိခိုက်မှုနည်းသော လုပ်ငန်းအမျိုးအစားဖြစ်သော်လည်း လုပ်ဖူးလုပ်ရေးမှာ ညွှန်ကြားထားသော စည်းမျဉ်းစည်းကမ်းများကို လိုက်နာရမည်ဖြစ်ပါသည်။
အနီးနားဝန်းကျင် အန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေး	ဃ	ထိခိုက်မှုတစ်စုံတရာမတွေ့ရပါ။

20-Nov-18

လူမှုဘဝ အခြေအနေ

စားဝတ်နေရေးနှင့် စီပွားရေး	က+	လုပ်သားပြည်သူ အလုပ်အကိုင်အခွင့်အလမ်းများ တိုးပွားလာခြင်း၊ သာမာန်လုပ်သားဘဝမှ ကျွမ်းကျင်ဝန်ထမ်းဘဝသို့ တက်လှမ်းနိုင်ခြင်း အစရှိသည့်ကောင်းကျိုးများရရှိစေနိုင်သည်
ကလေးလုပ်သား	ဃ	စက်ရုံတွင် ကလေးလုပ်သားအသုံးပြုမှု လုံးဝမရှိပါ။ မြန်မာနိုင်ငံ၏ အလုပ်သမား ဥပဒေအရ ၁၈ နှစ်အထက်သာ လုပ်သားခန့်အပ်ခွင့်ရှိကြောင်းကိုလည်း သိရှိပြီးဖြစ်သည်။ တို့ကြောင့် စက်ရုံတွင် ကလေးလုပ်သား ခန့်ထားခွင့်ကို တားမြစ်ထားပါသည်။
ယဉ်ကျေးမှုနှင့် ရှေးဟောင်းအမွေအနှစ်	ဃ	စက်ရုံသည် လိုင်သာယာမြို့နယ်ရှိ လိုင်သာယာစက်မှုဇုန် ၃ တွင် တည်ရှိသောကြောင့် ထိခိုက်မှုတစ်စုံတစ်ရာ မတွေ့ရပါ။
သဘာဝပတ်ဝန်းကျင်အခြေအနေ	ဃ	စက်ရုံသည် လိုင်သာယာမြို့နယ်ရှိ လိုင်သာယာစက်မှုဇုန် ၃ တွင် တည်ရှိသောကြောင့် ထိခိုက်မှုတစ်စုံတစ်ရာ မတွေ့ရပါ။

20 November, 2018 23

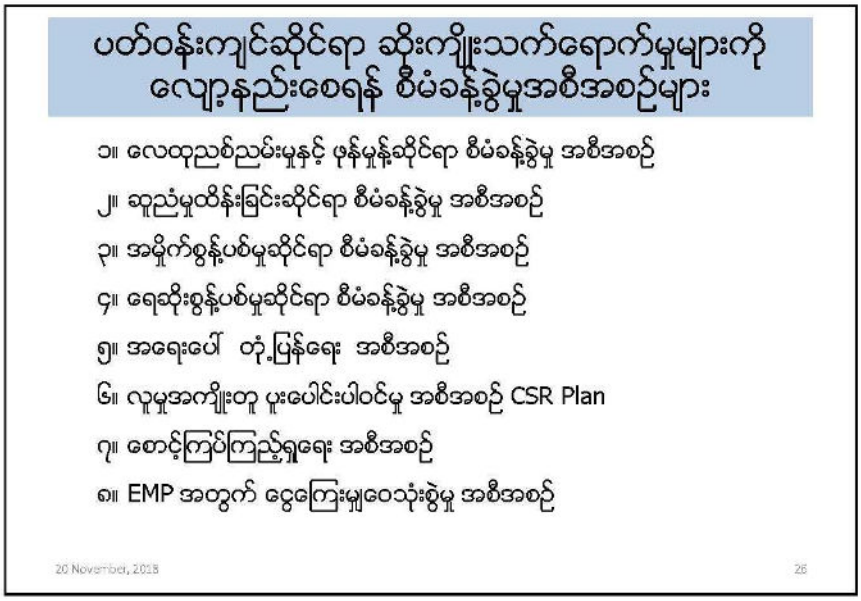
အရေးပေါ်အခြေအနေ

မီးဘေးအန္တရာယ်	ခ-	မတော်တဆမှု၊ ပေါ်ဆမှု၊ လျှပ်စစ်၊ အစရှိသည်တို့မှ ဖြစ်ပေါ် စေနိုင်ပါသည်။
ရေကြီးရေလျှံမှု	ဂ	မိုးကြီးခြင်း၊ မုန်တိုင်းတိုက်ခြင်း စသည်တို့ ဖြစ်ပေါ်စေနိုင်ပါသည်။
ငလျင်	ဂ	ငလျင်ဒါဂ်မခံနိုင်သော အဆောက်အဦတည်ဆောက်မှုပုံစံကြောင့် ထိခိုက်ပျက်စီးမှုဖြစ်စေနိုင်ပါသည်။
တခြားကဏ္ဍ		
ကမ္ဘာကြီးပူနွေးလာမှု	ခ-	စက်ရုံသုံးယာဉ်များ၊ မီးစက် အစရှိသော စွမ်းအင်လောင်ကျွမ်းခြင်းတို့ကြောင့် ဖန်လုံအိမ်ခါတ်ငွေ့ ထုတ်လွှတ်မှုဖြစ်စေပြီး ကမ္ဘာကြီးပူနွေးမှုဖြစ်စေသည်။

20 November, 2018 24

20-Nov-18


(၅) ပတ်ဂန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်
20 November, 2018
25


ပတ်ဝန်းကျင်ဆိုင်ရာ ဆိုးကျိုးသက်ရောက်မှုများကို
လျော့နည်းစေရန် စီမံခန့်ခွဲမှုအစီအစဉ်များ
၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်
၂။ ဆူညံမှုထိန်းခြင်းဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်
၃။ အမှိုက်စွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်
၄။ ရေဆိုးစွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်
၅။ အရေးပေါ် တုံ့ပြန်ရေး အစီအစဉ်
၆။ လူမှုအကျိုးတူ ပူးပေါင်းပါဝင်မှု အစီအစဉ် CSR Plan
၇။ စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်
၈။ EMP အတွက် ငွေကြေးမျှဝေသုံးစွဲမှု အစီအစဉ်
20 November, 2018
26

20-Nov-18

လေထုညစ်ညမ်းမှုလျော့ချရေးနှင့် စီမံခန့်ခွဲမှု အစီအစဉ်

- စက်ရုံတွင် မီးစက်အတွက် မီးခိုးခေါင်းတိုင်ထားရှိပြီးဖြစ်သည်၊
- ခေါင်းတိုင်အား အမြင့်ကောင်းမွန်သော အခြေအနေတွင် ပြုပြင်ထားရှိခြင်း
- NOx ထွက်ရှိမှု နှုန်းနည်းသော နည်းပညာဖြင့် မီးစက်ကို အသုံးပြုခြင်း၊
- စက်ရုံတွင် (open burning) မီးမှို့, ခြင်းမပြုလုပ်ရန် တားမြစ်ထားခြင်း၊
- ဖုန်ထွက်သောနေရာတွင် အလုပ်လုပ်သော လုပ်သားများအတွက် နှာခေါင်းစီးများ ဝတ်ဆင်စေခြင်း၊
- စက်ရုံအတွင်းနှင့် အနီးအနားတွင် သစ်ပင်စိုက်ပျိုးခြင်းဖြင့် Carbon ထွက်ရှိမှုကို လျော့ချစေပြီး လေထုညစ်ညမ်းမှုကို လျော့ချစေပါသည်၊


20 November, 2018 27

ဆူညံမှုလျော့ချရေးနှင့် စီမံခန့်ခွဲမှု

- ဆူညံသံများသော မီးစက်ခန်းနှင့် လေမှုတ်စက်ခန်း အစရှိသည်တို့ကို သီးသန့်ခန်းထားရှိခြင်း၊ အသံဆူညံမှုနည်းသော စနစ်ပါ (sound proof system) မီးစက်သုံးခြင်း။
- လုံလောက်သော တစ်ကိုယ်ရေသုံး ကာကွယ်ရေးပစ္စည်းများ ထောက်ပံ့ပေးခြင်း


20 November, 2018 28

20-Nov-18

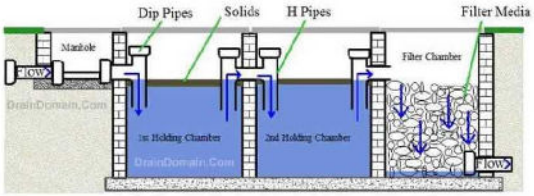
အမှိုက်စွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲခြင်း

- စက်ရုံမှ မည်သည့်အမှိုက်ကိုမဆို အနီးအနားရှိ ရေမြောင်း၊ ရေကန်၊ ချောင်း၊ မြစ် အစရှိသည့်နေရာများတွင် မစွန့်ပစ်ရန် တားမြစ်ထားသည်။
- စက်ရုံတွင် စနစ်တကျ အမှိုက်စွန့်ပစ်ရန် အမှိုက်ပုံးများထားရှိပေးသည့်အပြင် စနစ်တကျစွန့်ပစ်ရန် တိုက်တွန်းထားခြင်း
- စက်လိုင်းများတွင်လည်း ပိတ်စများပစ်ရန် ပုံးများ အရန်သင့်ထားရှိခြင်း
- အမှိုက်များကိုလည်း အလွယ်တကူစွန့်ပစ်နိုင်ရန် သင့်တင့်သောနေရာများတွင် အမှိုက်ပုံးများထားပေးခြင်း
- အမှိုက်များကို စည်ပင်သာယာရေးကော်မတီသို့ အကြောင်းကြားပြီး တစ်ပတ်လျှင် တစ်ကြိမ်စွန့်ပစ်ပါသည်။



ရေဆိုးစွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု

- မိလ္လာကန်နှင့် စွန့်ပစ်ရေမြောင်းများကို အဖုံးအကာများဖြင့် ထားရှိခြင်း
- စက်ရုံရေမြောင်းများကို အမှိုက်စွန့်ပစ်မှု မရှိစေရန်တားမြစ်ခြင်းနှင့် ရေစီးရေလာကောင်းမွန်ရန် စီစဉ်ထားခြင်း



20 November, 2018 30

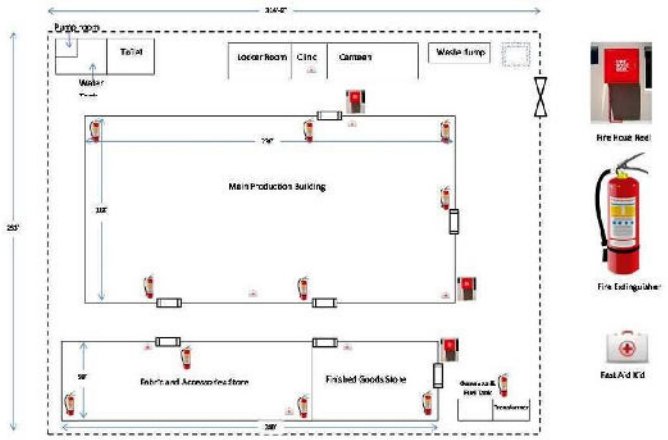
20-Nov-18

အရေးပေါ်တုန့်ပြန်ရေး အစီအစဉ်

- အရေးပေါ်တုံ့ပြန်ရေး အစီအစဉ်အတွက် စက်ရုံတွင် ကောင်းမွန်စွာစီမံထားပြီးဖြစ်သည်။
- မီးဘေးကာကွယ်ရေးအတွက် မီးသတ်ဆေးဘူး၊ မီးသတ်ပိုက်၊ အရေးပေါ်အချက်ပေးစနစ်၊ အရေးပေါ်ဆက်သွယ်နိုင်သည့် လိပ်စာများကို နေရာတိုင်းတွင် တပ်ဆင်ထားပြီးဖြစ်သည်။
- အရေးပေါ်အခြေအနေတွင်လည်း စနစ်တကျပြုလုပ်နိုင်ရန် သင်တန်းများလည် ပို့ချပေးမည်ဖြစ်သည်။
- စက်ရုံတွင် အရေးပေါ်ကာကွယ်ရေးအဖွဲ့၊ မီးသတ်အဖွဲ့ စသည့်ဖြင့် ဖွဲ့စည်းခြင်း၊ ဆွေးနွေးခြင်း၊ အသိပညာပေးခြင်း၊ စသည်ဖြင့် ပြုလုပ်ရန်၊

20 November, 2018 31

အရေးပေါ် မီးငြိမ်းသတ်ရေးလမ်းညွှန်မြေပုံ



20 November, 2018 32

20-Nov-18

လူမှုအကျိုးတူ ပူးပေါင်းပါဝင်မှု (CSR) အစီအစဉ်

Sakura Garment Co., Ltd. တွင် CSR အတွက် အမြတ်ငွေ၏ ၂ % နှုန်းကို ကျန်းမာရေး၊ ပညာရေး၊ နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေး ပတ်ဝန်းကျင် ကာကွယ်စောင့်ကြည့်ခြင်း တို့အတွက် အသုံးပြုသွားမည် ဖြစ်သည်၊

ကျန်းမာရေး	ဝန်ထမ်းများ ကျန်းမာရေး စောင့်ရှောက်မှု	၀.၆ %
ပညာရေး	ပညာရေးကဏ္ဍ မြှင့်တင်ရေးနှင့် လူ့အခွင့်အရေး အသိပညာပေးခြင်း	၀.၆ %
နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေး	ဒေသတွင်း လိုအပ်သကဲ့သို့ လှူဒါန်းခြင်း	၀.၄ %
ပတ်ဝန်းကျင် ကာကွယ် စောင့်ကြည့်ရေး	ပတ်ဝန်းကျင် အရည်အသွေးများ ထိန်းသိမ်းရန်	၀.၄ %

20 November, 2018 33

စောင့်ကြပ်ကြည့်ရှုရေး

ကဏ္ဍ	အမျိုးအစား	နေရာ	ကြိမ်နှုန်း	တာဝန်ရှိသူ
ဆူညံမှု	ဆူညံမှု ပမာဏ	စက်ရုံလုပ်ငန်းခွင်အတွင်း	တစ်နှစ် နှစ်ကြိမ်	ပတ်ဝန်းကျင်ဆိုင်ရာ အကြံပေးနှင့် ပူးပေါင်း၍ (စက်ရုံတာဝန်ရှိသူ)
စွန့်ပစ်ပစ္စည်း	စက်ရုံမှထွက်သည့် အမှိုက် ဝန်ထမ်းစွန့်ပစ်အမှိုက်	စက်ရုံတွင် ယာယီစွန့်ပစ်သည့် နေရာနှင့် ပြင်ပသို့စွန့်ပစ်သည့် စစ်တန်း	တစ်ပတ် တစ်ကြိမ်	စက်ရုံတာဝန်ရှိသူ
လုပ်ငန်းခွင် ကျန်းမာရေးနှင့် ဘေးအန္တရာယ် ကင်းရှင်းရေး	စစ်တမ်းကောက်ယူမှု	စက်ရုံအတွင်း	လစဉ်	စက်ရုံတာဝန်ရှိသူ
စွမ်းအင်	လျှပ်စစ်စွမ်းအင်၊ ရေအသုံးပြုမှု လောင်စာ အသုံးပြုမှု	စက်ရုံအတွင်း	နေ့စဉ်	စက်ရုံတာဝန်ရှိသူ

20 November, 2018 34

20-Nov-18

EMP အတွက် ငွေကြေးမျှဝေသုံးစွဲမှု

အမျိုးအစား	နှုန်း	သုံးစွဲငွေ (USD)
လျှောရေးအစီအစဉ်		
စက်ရုံတွင်းလေဝင်လေထွက်စနစ်	တစ်နှစ်တစ်ကြိမ်	၂၀၀ တစ်နှစ်
သစ်ပင်ပန်းမံခိုက်ပျိုးခြင်း	သုံးလ တစ်ကြိမ်	၇၀ တစ်ကြိမ်
အရိုက်ခွန်ပစ်မှု	တစ်လတစ်ကြိမ်	၁၀၀၀ တစ်နှစ်
တစ်ကိုယ်ရေကာကွယ်ရေးပစ္စည်း (PPE)	တစ်နှစ်နှစ်ကြိမ်	၁၅၀ တစ်ကြိမ်
လုပ်သားဆေးစစ်ခြင်းနှင့် ကျန်းမာရေးစောင့်ရှောက်မှု	တစ်နှစ်တစ်ကြိမ်	၅၀၀ တစ်နှစ်
အရေးပေါ် အစီအစဉ်		
မီးသတ်ဆေးဘူး	တစ်လတစ်ကြိမ်	၃၀၀ တစ်လ
မီးသတ်ပိုးစနစ်	တစ်လတစ်ကြိမ်	
ရေးဦးပြုစုဆေးသေတ္တာ	တစ်လတစ်ကြိမ်	
စောင့်ကြည့်ရေးအစီအစဉ်		
ရေညှိသံ တိုင်းတာမှု	နှစ်ကြိမ်	၃၀၀ တစ်နှစ်
EMP လိုက်နာမှုစစ်တမ်း အစီအရင်ခံစာ	တစ်ကြိမ်	၁၀၀၀

20 November, 2018 35

ကျေးဇူးအထူးတင်ပါသည်။

20 November, 2018 36

APPENDIX G
List of Commitments

Sakura Garment Company Limited ၏ လုပ်ငန်းလည်ပတ်ဆောင်ရွက်ခြင်းကြောင့် ဖြစ်ပေါ်လာနိုင်သော သဘာဝပတ်ဝန်းကျင်၊ လူမှုဘဝ နှင့် ကျန်းမာရေး ထိခိုက်မှုများရှိခဲ့ပါက လျှော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် တားဆီးရေး အစီအစဉ် များကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan – EMP) တွင် ပါဝင်ရမည့် အချက်များကို အကောင်အထည်ဖော် စီမံဆောင်ရွက်သွားမည် ဖြစ်ကြောင်း။ အောက်ဖော်ပြပါ ဇယားဖြင့် အကျဉ်းချုပ် စာရင်းပြုစု ဖော်ပြထားပါသည်။

ကတိကဝတ်၏ အတိုချုပ် အမည်	စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
နိဒါန်း	၁	စီမံကိန်း နောက်ခံအကြောင်းနှင့် ရင်းနှီးမြှုပ်နှံမှု အစီအစဉ် EMP တွင်ပါဝင်ရေးစွဲသည့် လူပုဂ္ဂိုလ်နှင့် တာဝန်ယူမှုအပိုင်းများ	အခန်း (၁)
မူဝါဒ၊ ဥပဒေနှင့် အဖွဲ့အစည်းဆိုင်ရာမူဘောင်များ	၂	ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂) ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး နည်းဥပဒေ (၂၀၁၄) ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း (၂၀၁၅) မြန်မာနိုင်ငံမှ ချမှတ်ထားသော စက်ရုံနှင့် သက်ဆိုင်သည့် တခြားလိုက်နာဆောင်ရွက်ရမည့် လုပ်ထုံးလုပ်နည်း၊ ဥပဒေ၊ နည်းဥပဒေ နှင့် မူဝါဒများ အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသက်မှတ်ချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များ	အခန်း (၂)
စီမံကိန်း အကြောင်းအရာ	၃	စီမံကိန်း နောက်ခံအကြောင်းအရာနှင့် ရည်ရွယ်ချက် စီမံကိန်း တည်နေရာ၊ ဖွဲ့စည်းတည်ဆောက်မှု၊ စီမံကိန်းလည်ပတ်မှု အစီအစဉ် နှင့် စက်ရုံအတွက် လိုအပ်ချက်များ	အခန်း (၃)
ပတ်ဝန်းကျင် အရည်အသွေးတိုင်းတာမှု	၄	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံ သက်မှတ်ချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များကို အခြေခံ၍လေ့လာ	အခန်း (၄)

ကတိကဝတ်၏ အတိုချုပ် အမည်	စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		တိုင်းတာထားပါသည်။	
လေအရည်အသွေး	၄.၁	အဆိုပြုစီမံကိန်း၏ ပတ်ဝန်းကျင်ဆိုင်ရာ လေအရည်အသွေး (ထုတ်လွှတ်မှု) ထုတ်လွှတ်အခိုးအငွေ့ (Air emissions) ကို အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) တို့ဖြင့် နှိုင်းယှဉ် ဖော်ပြထားပါသည်။	အခန်းခွဲ (၄.၂.၁)
ဆူညံသံ	၄.၂	အဆိုပြုစီမံကိန်း၏ ပတ်ဝန်းကျင်ဆိုင်ရာ အသံအရည်အသွေး အမြင့်ဆုံးလက်ခံနိုင်သည့် ဆူညံသံအဆင့် (Noise level) (ထုတ်လွှတ်မှု) ကို အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ (၂၀၁၅) လမ်းညွှန်သက်မှတ်ချက် စက်မှုဇုန် ဧရိယာတွင် (70 One-hour LAeq (dBA)) ဖြင့် နှိုင်းယှဉ် ဖော်ပြထားပါသည်။	အခန်းခွဲ (၄.၂.၂)
စက်ရုံတွင်း အလင်းရောင် ရရှိမှု	၄.၃	စက်ရုံ၏နေ့ခင်းဘက်တွင် ဆောင်ရွက်လျက်ရှိသော အလင်းရရှိမှုနှင့်ပတ်သက်၍ Illumination and Limiting Glare Index based on IES Code, 1968 ဖြင့် နှိုင်းယှဉ် ဖော်ပြထားပါသည်	အခန်းခွဲ (၄.၂.၃)
ဒေသဆိုင်ရာအချက်အလက်များ	၄.၄	ရွှေပြည်သာမြို့နယ် အထွေထွေ အုပ်ချုပ်ရေးမှူးရုံးမှ အချက်အလက်များကို ဖော်ပြထားပါသည်။ (www.gad.gov.mm.com)	အခန်းခွဲ (၄.၅)
ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းနှင့် လျှော့ချရေး	၅	ပတ်ဝန်းကျင်ထိခိုက်မှုကို ကောင်းခြင်းနှင့် ဆိုးခြင်း ခွဲခြားပြီး၊ ဖြစ်လာနိုင်သော ထိခိုက်မှုများကို ရှောင်ချရေးအစီအစဉ်များ ရေးစွဲထားပါသည်	အခန်းခွဲ (၅)
ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်များ	၆	ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်အတွက် အဖွဲ့အစည်းဖွဲ့ခြင်း၊ တာဝန်ယူမှုပြုလုပ်ခြင်းနှင့် လုပ်ဆောင်မှုပုံစံများ ဖော်ပြထားပါသည်။ • လေထုညစ်ညမ်းမှု စီမံခန့်ခွဲရေး • ဆူညံသံ ထိန်းချုပ်မှု စီမံခန့်ခွဲရေး • စွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲရေး • စွန့်ထုတ်ရေ စီမံခန့်ခွဲရေး	အခန်းခွဲ (၆)

ကတိကဝတ်၏ အတိုချုပ် အမည်	စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		• စွမ်းအင်စီမံခန့်ခွဲရေး • ရေအသုံးပြုမှု စီမံခန့်ခွဲရေး • အရေးပေါ် အခြေအနေ ပြင်စင်ရေး စီမံခန့်ခွဲရေး	
စောင့်ကြပ်ကြည့်ရှုမှု	၆.၁	အဆိုပြုစီမံကိန်းသည် ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာအား ၆လ တစ်ကြိမ် ဝန်ကြီးဌာနများသို့ တင်ပြရမည်	အခန်းခွဲ (၆.၃)
ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အတွက် လျှာထားငွေကြေး	၆.၂	ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအတွက် လျှာထားမှု ပတ်ဝန်းကျင် စောင့်ကြပ်ကြည့်ရှုမှုအတွက် လျှာထားမှု အရေးပေါ်အခြေအနေ စီမံခန့်ခွဲမှုအတွက် လျှာထားမှု	အခန်းခွဲ (၆.၄)
သင်တန်းပို့ချခြင်းနှင့် အသိပညာတိုးတက်ရေး အစီအစဉ်	၆.၃	အဆိုပြုစီမံကိန်းအတွင်းဖြစ်ပေါ်လာနိုင်သော မတော်တဆနှင့် ရည်ရွယ်ချက်ရှိ အရေးပေါ်ကိစ္စရပ်များအတွက် သင်တန်းများပေးခြင်း အရေးပေါ်ကိစ္စရပ်များအတွက်သင်တန်းပေးခြင်း မီးဘေးအန္တရာယ်ကြိုတင်ပြင်ဆင်ခြင်းနှင့် ကာကွယ်ခြင်း မီးသတ်ပစ္စည်းများထားရှိပေးခြင်း မီးဘေးလုံခြုံရေးနှင့် လွတ်မြောက်လမ်းဆောင်ရွက်ပေးထားခြင်း အလုပ်သမားများအတွက် ကျန်းမာရေးစောင့်ရှောက်မှုဆိုင်ရာ သင်တန်းပေးခြင်း	အခန်းခွဲ (၆.၅.၉)
လူထုအကျိုးအတွက် ပူးပေါင်းပါဝင်မှု	၆.၄	အဆိုပြုလုပ်ငန်းသည် လူထုအကျိုးပြုပူပေါင်းပါဝင်မှုကို ကျန်းမာရေး၊ ပညာရေးနှင့် နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေးအတွက် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်က ချမှတ်သည့် အတိုင်း ကုမ္ပဏီ၏ အကျိုးအမြတ် ၂ ရာ ခိုင်နှုန်းအား နှစ်စဉ် ထည့်ဝင်သွားမည်ဖြစ်သည်။	အခန်းခွဲ (၆.၇)
လူထုတွေ့ဆုံပွဲ အစီအစဉ်	၇	၂၀၁၈ ခုနှစ် အောက်တိုဘာလ ၂၉ ရက်နေ့တွင် Sky Hotel အစည်းအဝေးခန်းမ	အခန်း (၇)

ကတိကဝတ်၏ အတိုချုပ် အမည်	စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		လှိုင်သာယာမြို့နယ်တွင် တွင် ပြုလုပ်ခဲ့ပါသည်	