INITIAL ENVIRONMENTAL EXAMINATION REPORT
FOR
YU CHANG (MYANMAR) SPRAY COTTON CO. LTD

PREPARED FOR:

YU CHANG (MYANMAR) SPRAY COTTON CO. LTD

NO. (3), Main Road, Block No.11/3 & 13/4+14/1, Lot No. 577, Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region, Myanmar

October, 2021

LETTER OF ENDORSEMENT BY THE PROJECT PROPONENT

This Environmental Management Plan (EMP) for Yu Chang (Myanmar) Spray Cotton Co. Ltd was prepared by company organization itself. This Environmental Management Plan has been done with reasonable skills, care and diligence in accordance with the stipulations of Environmental Impact Assessment Procedure (Paragraph 76-82). I hear by signed this report on behalf of the Yu Chang (Myanmar) Spray Cotton Co. Ltd to certify that all the information in it are true and convincing to the best of our knowledge. I hereby issue my letter of endorsement to confirm:

(a) The accuracy and completeness of the EMP;

(b) That the EMP has been prepared in strict compliance with applicable laws including the EIA Procedure; and

(c) That the Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP Report.

Signed

Name : ……

Position : ……

Organization : ……

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CMP	Cutting, Making and Packaging
COD	Chemical Oxygen Demand
dB	Decibel
Dept	Department
EMP	Environmental Management Plan
HOD	Head of Department
HR	Human Resource
MIC	Myanmar Investment Commission
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
SLM	Sound Level Meter
MEMs	Mitigation Environment Measure

အနှစ်ချုပ်အစီအရင်ခံစာ

၁။ နိဒါန်း

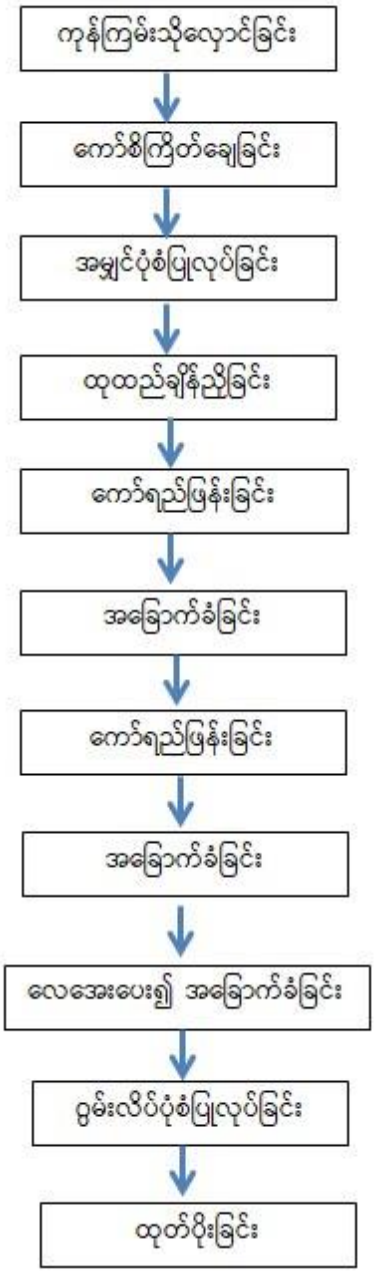
ယူချန်(မြန်မာ)စပရေးကော်တွန်ကုမ္ပဏီလီမိတက်သည် မြန်မာကုမ္ပဏီများအက်ဥပဒေအရဖွဲ့စည်းထားသောပုဂ္ဂလိကကုမ္ပဏီလီမိတက်ဖြစ်သည်။ ယူချန်(မြန်မာ)စပရေးကော်တွန်ကုမ္ပဏီလီမိတက်သည် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန(DICA)တွင်မှတ်ပုံတင်နံပါတ်(၁၂၀၁၀၆၆၀၀)ရရှိပြီးဖြစ်ပါသည်။ ယူချန်(မြန်မာ)စပရေးကော်တွန်ကုမ္ပဏီလီမိတက်သည် CMP စက်ရုံလုပ်ငန်းများအတွက် ဂျာကင်အင်္ကျီနှင့်အနွေးအင်္ကျီကဲ့သို့သော အဝတ်အထည်များထုတ်လုပ်ရာတွင် ကုန်ကြမ်းအဖြစ်အသုံးပြုသော ဂွမ်းကပ်အလိပ်များထုတ်လုပ်သောစက်ရုံဖြစ်ပါသည်။ ယူချန်(မြန်မာ)စပရေးကော်တွန်ထုတ်လုပ်ခြင်းစက်ရုံသည် ဦးပိုင်အမှတ်(၁၁/၃)၊ ကွင်းအမည်-၅၇၇-အင်းလျက်၊ ဦးပိုင်အမှတ်-(၁၃/၄+၁၄/၁)၊ ကွင်းအမည်- ၅၇၇-ကျောက်ပုန်း၊ အင်းလျက်ကျေးရွာအုပ်စု၊ မော်ဘီမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင်တည်ရှိသည်။ စီမံကိန်းဧရိယာတွင် ရုံး၊ စက်ရုံ၊ လုံခြုံရေး**ဂိတ်**၊ ကုန်ကြမ်းသိုလှောင်သည့် နေရာများပါဝင်တည်ဆောက်ထားသည်။ စက်ရုံ၏တည်နေရာမှာ လတ္တီကျု(17'5'16.96"N)နှင့် လောင်ကျီကျု(96'3'29.32"E)တွင်တည်ရှိပါသည်။ ယူချန်(မြန်မာ)စပရေးကော်တွန် ကုမ္ပဏီလီမိတက်၏ ဂျာကင်အင်္ကျီနှင့်အနွေးအင်္ကျီကဲ့သို့သောအဝတ်အထည်များထုတ်လုပ်ရာတွင် ကုန်ကြမ်းအဖြစ်အသုံးပြုသောဂွမ်းကပ်အလိပ်များထုတ်လုပ်ခြင်းစက်ရုံအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan)ကို စီမံကိန်းအဆိုပြုသူ ယူချန်(မြန်မာ)စပရေးကော်တွန်ကုမ္ပဏီလီမိတက်စက်ရုံ၏ တာဝန်ရှိသူများမှ ၂၀၂၁ခုနှစ်၊ အောက်တိုဘာလ အတွင်းတွင် စတင်စုစည်းရေးသားပြုစုခြင်းဖြစ်ပါသည်။

၂။ ယူချန်(မြန်မာ)စပရေးကော်တွန်ကုမ္ပဏီလီမိတက်၏ ပိုလီအီစတာဂွမ်းလိပ်ထုတ်လုပ်မှုလုပ်ငန်းစဉ်

ယူချန်(မြန်မာ)စပရေးကော်တွန်ကုမ္ပဏီလီမိတက်၏စက်ရုံမှ CMPစနစ်သုံးစက်ရုံလုပ်ငန်းများအတွက် ဂျာကင်အင်္ကျီနှင့်အနွေးအင်္ကျီကဲ့သို့သော အဝတ်အထည်များထုတ်လုပ်ရာတွင် ကုန်ကြမ်းအဖြစ်အသုံးပြုသော ဂွမ်းကပ်အလိပ်များထုတ်လုပ်သည်။ ထုတ်ကုန်၏(၃၀)ရာခိုင်နှုန်းသည် တရုတ်နိုင်ငံသို့အထည်အလိပ်များတင်ပို့သည့်ကုမ္ပဏီ၏ အမှာစာအပေါ်မူတည်၍ တင်ပို့ခြင်းဖြစ်ပါသည်။ စက်ရုံ၏ပုံမှန်ထုတ်လုပ်မှုလုပ်ငန်း အဆင့်များကို အောက်ပါပုံ (က)တွင် ဖော်ပြထားပါသည်။

အဓိကထုတ်လုပ်မှုလုပ်ငန်းစဉ်များမှာ ပြည်ပမှတင်သွင်းထားသောကုန်ကြမ်းများကို ကုန်ကြမ်းသိုလှောင်ခြင်း၊ ပေါ်လီအီစတာကော်စေ့ကြိတ်ခြင်း၊ အမျှင်ပုံစံလုပ်ခြင်း၊ ကော်ရည်ဖြန်းခြင်း၊ အခြောက်ခံခြင်း၊

ဂွမ်းကပ်ပုံစံလိပ်ခြင်းနှင့် ထုတ်ပိုးခြင်းစသည့်လုပ်ငန်းစဉ်တို့ပါဝင်သည်။ ထုတ်လုပ်မှု လုပ်ငန်းစဉ်တွင် စွန့်ပစ်အရည်ထွက်ရှိမှုမရှိသော်လည်း ဘွိုင်လာနှင့်မီးစက်အသုံးပြုမှုတွင် အခိုးအငွေ့ထုတ်လွှတ်မှု အနည်းငယ်မျှသာရှိပါသည်။ ဤလုပ်ငန်းစဉ်တွင် အစိုင်အခဲစွန့်ပစ်ပစ္စည်းများထွက်ရှိမှုသည် လုပ်ငန်းစဉ် အားလုံးတွင်ပါဝင်နိုင်သည်။ ထိုအစိုင်အခဲစွန့်ပစ်ပစ္စည်းများကို မှော်ဘီမြို့နယ်၊ စည်ပင်သာယာရေးကော်မတီ ၏ ခွင့်ပြုချက်ဖြင့် စွန့်ပစ်ရန်စီစဉ်ထားရှိသည်။



ပုံ (က) ယူချန်(မြန်မာ)စပရေးကော်တွန်ကုမ္ပဏီလီမိတက်၏ ပိုလီအီစတာဂွမ်းလိပ်ထုတ်လုပ်မှုလုပ်ငန်းစဉ်

၃။ လက်ရှိပတ်ဝန်းကျင်အခြေအနေ

ယူချန်(မြန်မာ)စပရေးကော်တွန်ကုမ္ပဏီလီမိတက်၏ ပိုလီအီစတာဂွမ်းလိပ်ထုတ်လုပ်မှု လုပ်ငန်းစဉ်သည် လက်ရှိအခြေအနေတွင်လုပ်ငန်းလည်ပတ်နေပြီဖြစ်သည်။ စက်ရုံရှိလက်ရှိပြင်ဆင်ထားမှု အခြေအနေများကို ဇယား (က) တွင်ပြထားသည်။

ဇယား (က) စက်ရုံ၏လက်ရှိအခြေအနေများ၏ စစ်ဆေးတွေ့ရှိမှုအခြေအနေများ

စဉ်	စက်ရုံရှိလက်ရှိပြင်ဆင်ထားမှုအခြေအနေများ	မှတ်ချက်
၁	စက်ရုံဝင်ပေါက်	
၂	ရေဆိုးမြောင်းစနစ်	

၃	အလုပ်သမားများအတွက် ကိုယ်လက်သန့်စင်နေရာထားရှိခြင်း	
၄	မီးသတ်ဆေးဗူးများထားရှိခြင်း	
၅	မီးသတ်ပိုက်များနှင့် အရေးပေါ်အချက်ပေးခလုတ်များ တပ်ဆင်ထားခြင်း	
၆	အရေးပေါ်ထွက်ပေါက်များကို ဖော်ပြထားခြင်း	

၇	အရေးပေါ်စုရပ်ထားရှိခြင်း	
၈	အရေးပေါ်မီးသတ်စနစ်အတွက် မီးသတ်ကန်ထားရှိခြင်း	
၉	စက်ရုံအတွင်း ကောင်းမွန်သော အလင်းရောင်ရရှိစေရန်ဆောင်ရွက်ထားခြင်း	
၁၀	ကုန်ချောများစနစ်တကျသီးသန့်ထားရှိခြင်း	

၁၁	သောက်သုံးရေအတွက် ရေသန့်စင်စနစ် တပ်ဆင်ထားခြင်း	
၁၂	ဇီဝလောင်စာသုံးဘွိုင်လာ တပ်ဆင်အသုံးပြုခြင်း	
၁၃	လျှပ်စစ်အရန်ထောက်ပံ့ရန်ဒီဇယ် လောင်စာသုံးမီးစက်များထားရှိခြင်း	

၄။သက်ရောက်မှု ဆန်းစစ်ခြင်းနှင့် ကုစားခြင်း

ယူချန်(မြန်မာ)စပရေးကော်တွန်ကုမ္ပဏီလီမိတက်၏ ပိုလီအီစတာဂွမ်းလိပ်ထုတ်လုပ်ပုံလုပ်ငန်းအဆင့်ဆင့်ပေါ်မူတည်၍ သက်ရောက်မှုဆန်းစစ်ခြင်းနှင့် ကုစားခြင်းကို အောက်ဖော်ပြပါဇယား(ခ)နှင့် (ဂ)တွင် ဖော်ပြထားပါသည်။

ဇယား (ခ) ပတ်ဝန်းကျင်အပေါ် သက်ရောက်စေမည့် အကြောင်းအချက်များနှင့် သက်ရောက်မှုများ

စဉ်	လုပ်ငန်းစဉ်	သက်ရောက်မှုဖြစ်ပေါ်စေသည့် အကြောင်းအချက်	သက်ရောက်မှု
၁	ကုန်ကြမ်း၊ ကုန်ချော ပစ္စည်းများ ကိုင်တွယ် ထိန်းသိမ်းခြင်း	ကုန်ကြမ်းကုန်ချောပစ္စည်းများ အတင်အချ ပြုလုပ်ခြင်း	ထိခိုက်ပွန်းရှခြင်း အလေးအပင်မရာမှ ဒဏ်ဖြစ်ခြင်း၊
		ထုပ်ပိုးစွန့်ပစ်ခြင်း	အစိုင်အခဲ စွန့်ပစ်ပစ္စည်း၊
			မီးဘေးအန္တရာယ်
		ဓာတုပစ္စည်းများသိုလှောင်ခြင်း	ဓာတုအန္တရာယ်
၂	ကော်စေ့များကြိတ်ခြင်း	ကြိတ်ခြေစက် အသုံးပြုခြင်း	ထိခိုက်ပွန်းရှခြင်း
			အစိုင်အခဲ စွန့်ပစ်ပစ္စည်း
၃	ဖိုက်ဘာအမျှင်ပြုလုပ်ခြင်း၊ အစေးဖြန်းခြင်းနှင့် အခြောက်ခံခြင်း။	အစေးကော် (အေးဂျင့်ဓာတု) နှင့်ထိတွေ့ခြင်း၊	အစိုင်အခဲစွန့်ပစ်ပစ္စည်း
			ဓာတုအန္တရာယ်
			အနှံ့အသက်၊ ဖုန်မှုန့်ထွက်ခြင်း
၄	ထုပ်ပိုးခြင်းနှင့် သိုလှောင်ခြင်း	ဂွမ်းလိပ်လိပ်စက်အသုံးပြုခြင်း	စက်ယန္တယားအန္တရာယ်
		စက္ကူပုံးစွန့်ပစ်ခြင်း အိတ်ခွံများစွန့်ပစ်ခြင်း	အလေးအပင်မရာမှ ဒဏ်ဖြစ်ခြင်း၊
၅	အသုံးပြုယာဉ်များအတွက် လောင်စာဆီသိုလှောင် သိမ်းဆည်းထားခြင်း	ဆီယိုဖိတ်ခြင်း	မီးဘေးအန္တရာယ်

ဇယား (၈) ကုစားရန် နည်းလမ်းများ

သက်ရောက်မှု	ရင်းမြစ်	ကုစားခြင်း
မီးဘေးအန္တရာယ်	- တားမြစ်နယ်မြေအတွင်း ဆေးလိပ်သောက်ခြင်း။ - လျှပ်စစ်ဓာတ်အားဝန်ပိုကျော်လွန် အသုံးပြုခြင်း ကြောင့် ဝါယာရှော့ခ်ဖြစ်ခြင်း။ - မီးစက်မောင်းနှင်ရန်အတွက် ဒီဇယ်သိုလှောင်မှု	(၁)စက်ရုံဝင်းအတွင်းဆေးလိပ်သောက် ခြင်းကိုလုံးဝပိတ်ပင်တားမြစ် ခြင်း (၂)အရေးပေါ်ထွက်ပေါက်များကိုရှင်းလင်းစွာ ဖော်ပြခြင်း (၃)ထွက်ပေါက်လမ်းများကိုအမြဲသန့်ရှင်း အောင် ထားခြင်း (၄)မီးသတ်ဆေးဘူးများကို ပုံမှန်စစ်ဆေး၊ ဖြည့်တင်းခြင်း (၅)မီးငြိမ်းမှု ဇာတ်တိုက်လေ့ကျင့်ခန်းများ ပုံမှန်ပြုလုပ်ခြင်း
အစိုင်အခဲစွန့်ပစ် ပစ္စည်း	- ဖိုက်ဘာအမြင်အပိုင်းအစများ - ဖြတ်တောက်မှုအပိုင်းအစများ၊ - ထုပ်ပိုးစွန့်ပစ်ပစ္စည်း - ပလပ်စတစ်အမှိုက်များ - အထွေထွေအမှိုက်များ	(၁) စဉ်ဆက်မပြတ်နှင့် ပုံမှန်သန့်ရှင်းရေး လုပ်ရန် (၂)အိတ်များဖြင့် နိုင်လွန်အထည်စွန့်ပစ် ပစ္စည်းထုပ်ပိုးထားခြင်း (၃)စွန့်ပစ်အိတ်များကိုစနစ်တကျသိုလှောင် ခြင်း (၄)စွန့်ပစ်ပစ္စည်းစုဆောင်းသူကိုပုံမှန်ခေါ်ယူ ခြင်း (၅)အမှိုက်ပုံးများလုံလောက်စွာထားခြင်း
ထိခိုက်နိုင်မှု	- ကုန်ကြမ်း၊ ကုန်ချော ပစ္စည်းများအတင်အချပြုလုပ်ခြင်း - ရေနွေးငွေ့နှင့်ထိတွေ့မိခြင်း - ဖြတ်စက်ကိုင်တွယ်အသုံးပြုခြင်း	(၁) ကုန်ပစ္စည်းများ အလွယ်တကူမရန် အထောက်အကူပြု သယ်ဆောင်ကိရိယာ အသုံးပြုခြင်း (၂) ထိခိုက်ပွန်းရှနိုင်သည့်ပစ္စည်းများ ကိုင်တွယ်ရာတွင်အပူခံလက်အိတ် အသုံးပြုခြင်း

		(၃) စက်တွင် အကာအရံတပ်ဆင်ခြင်း
ဆူညံသံ	-မီးစက်နှင့်စက်များ မောင်းနှင်အသုံးပြုခြင်း	(၁) စက်ပစ္စည်းများအား ပုံမှန်ပြုပြင်ထိန်းသိမ်းမှုများ ပြုလုပ်ခြင်း (၂) မီးစက်အသုံးပြုခြင်း နေရာတွင် အသံလုံအကာအကွယ် တပ်ဆင်ခြင်း
စက်ယန္တရား အန္တရာယ်	- ရေနွေးငွေ့ဖြင့် ပေါင်းခံစက် အသုံးပြုခြင်း - လိပ်စက်ကိုအသုံးပြုခြင်း	(၁) လုပ်ငန်းခွင် အန္တရာယ် ကာကွယ်ရေးပစ္စည်းများ (မျက်မှန်၊ လက်အိတ်၊ နားကြပ်) တို့ကို မပျက်မကွက် ဝတ်ဆင်ခြင်း (၂) စက်ပေါ်တွင် အမှိုက်၊ ဖုန်၊ ဆီတင်ကျန်မှုရှိ/ မရှိ စစ်ဆေးပြီး ပုံမှန်သန့်ရှင်းခြင်း (၃) ဆီယိုစိမ့်မှုရှိ/ မရှိ စစ်ဆေးပြီး လိုအပ်သော ဆီပမာဏဖြည့်ခြင်း (၄) စက်ယန္တရားများ လည်ပတ်ရာနေရာတွင် မီးလောင်ပေါက်ကွဲနိုင်သော ပစ္စည်းများမရှိအောင်ကြိုတင်ရှင်းလင်းခြင်း (၅) စက်ယန္တရားများ လည်ပတ်ရာနေရာတွင် လုံခြုံရေးအကာအကွယ်များ တပ်ဆင်ခြင်း (၆) စက်တွင် ပါဝင်သော မော်တာပတ္တာကြိုး၊ ဂီယာ၊ ချိန်းကြိုး နှင့် ရွေ့လျားအစိတ်အပိုင်းများကို ပုံမှန်စစ်ဆေးခြင်း (၇) စက်ယန္တရား၏ အစိတ်အပိုင်းများကို စနစ်တကျ တပ်ဆင်ခြင်း (၈) စက်စတင် အသုံးမပြုမီ စက်၏

		လျှပ်စစ်ကြိုးများကို စစ်ဆေးပြီး ပေါက်ပြဲ ပျက်စီး နေလျှင် ပြုပြင်လဲလှယ်ခြင်း (၉) စက်စတင် အသုံးမပြုမီ ကြိုတင် စစ်ဆေးရမည့် အချက်များကို စာရင်း ပြုလုပ် ထားပြီး အလွယ်တကူ မြင်နိုင်မည့် နေရာတွင် ကပ်ထားခြင်း (၁၀) စက်ယန္တရားများကို ကျမ်းကျင် ဝန်ထမ်း များသာလျှင် ကိုင်တွယ် အသုံးပြု ခြင်း (၁၁) စက်ယန္တရားများတွင်စက်လည် ပတ်မှု အရေးပေါ် ရပ်နားသည့် ခလုတ် /စနစ်များကို အလွယ်တကူမြင်နိုင်သည့်နေရာတွင် တပ်ဆင်ခြင်း
ဖုန်၊ အနုံ့အသက်	ပိုလီအီစတာကော်စေ့ကြိတ်ခြင်းနှင့် ဓာတုပစ္စည်းများမှထွက်ရှိခြင်း	(၁) လုပ်သားများအတွက် နှာခေါင်း စည်းများ အလုံအလောက်စီစဉ် ထားရှိခြင်း (၂) အမှုန်အမွှားထွက်ရှိသည့်အလုပ်နေရာ တွင် လုပ်သားများနှာခေါင်းစည်းအသုံး ပြုမှုကို ပုံမှန်စစ်ဆေးကြပ်မတ်ခြင်း (၃) အမှုန်ထုတ်လွှတ်မှု တိုင်းတာသည့် ကိရိယာတပ်ဆင်ခြင်း (၄) အမှုန်ထုတ်လွှတ်မှု ၅၀ထက် ကျော်လွန် လျှင်လုပ်ငန်းအားလုံးကို ခေတ္တရပ်နား ထားခြင်း (၅) အမှုန်အမွှားစုပ်စက် အသုံးပြုခြင်း
ဓာတုအန္တရာယ်	အစေးကော်(အေးဂျင့်ဓာတု) နှင့်ထိတွေ့ခြင်း၊	(၁) အင်္ဂေ့အသက်များကြောင့် ခေါင်းမူး ခေါင်းကိုက်သည့် လက္ခဏာ ပြပါက အလုပ်ခွင်မှ ခေတ္တရပ်နားပြီး လေကောင်း

		လေသန့် ရရှိရာနေရာတွင် နားနေစေခြင်း (၂) ဓါတုပစ္စည်းများကို ရေမြောင်းအတွင်း လုံးဝ ဝင်ရောက်မှု မရှိအောင် ကာကွယ်ခြင်း (၃) လုပ်ငန်းခွင်အတွင်း ခြေ၊ လက်၊ မျက်နှာများကို အလွယ်တကူ ဆေးကြော နိုင်ရန် စီစဉ်ထားရှိခြင်း (၄) လုပ်ငန်းခွင် နေရာတွင် အစာစားခြင်း၊ ရေသောက်ခြင်း၊ ဆေးလိပ်သောက်ခြင်းများ မပြုလုပ်ရန် ပုံမှန် စစ်ဆေး ကြပ်မတ်ခြင်း (၅)ဓါတုပစ္စည်းတစ်ခုချင်းစီ၏ဘေးအန္တရာယ် ကင်းရှင်းရေးဆိုင်ရာ အချက်အလက်များ (MSDS) ကို လုပ်သားများ အားလုံးကောင်းစွာ နားလည်သဘောပေါက်အောင် ရှင်းလင်းအသိပညာပေးခြင်း

EXECUTIVE SUMMARY

1. Introduction

Yu Chang (Myanmar) Spray Cotton Co. Ltd is a Private Company Limited incorporated under the Myanmar Companies Act. Yu Chang (Myanmar) Spray Cotton Co. Ltd is a specialized company in Registration Department (DICA) with registration Number (120106600). The company is located NO. (3), Main Road, Block No.11/3 & 13/4+14/1, Lot No. 577, Kyaut Pone Kwin ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region, and Myanmar. The estimated investment for the Yu Chang (Myanmar) Spray Cotton Co. Ltd is US$ (1.920) million for 8 years.

Figure A. Location of Yu Chang (Myanmar) Spray Cotton Co. Ltd

The project area is (2.82) acres of land and it include office, factory, raw materials storage area, canteen, product storage area and solid waste disposal area. The Factory construction operation was started in 2020. The building period is 1year.

2. Project Operation

The factory produces varieties of synthetic resin spray cotton for clothing such as jacket and warm coat as CMP factory enterprises. There are about (208) workers at the factory. Routine production works can be seen in the following flow diagram. Primary production scheme is raw materials storing, grinding, fiber making, and thickness adjustment, resin spraying, drying, rolling, packing and loading.

Figure (B) Process Flow Diagram for Yu Chang (Myanmar) Spray Cotton Co. Ltd

The production process produces non liquid effluent and slightly gaseous emission from generator. Discharged waste water of factory was disposed to municipal drainage. The process produce solid waste mainly consists of all process and these solid wastes are managed to collect by the government waste collector.

2. Current Conditions of the Factory

Yu Chang (Myanmar) Spray Cotton Co. Ltd is start construction operation process in current condition. Inspection results of current conditions of the factory are shown in table (A).

Table (A). Inspection Results of Current Conditions of the Factory

Sr.	Particular	Remark
1	Factory Entrance	
2	Drainage system	

3	Providing washing area for labor	
4	Fire extinguishers are provided within the factory compound	
5	Fire hose cabinets and fire alarm is provided for emergency cases	 

6	Emergency exits sign are installed	
7	Assembly point for emergency case	
8	Constructed fire safety unit for firefighting system	
9	Installed fully lighting	

10	Drinking Water treatment system was installed for labor	
11	Generator installed for electricity recovery	
12	250 kVA Transformer is installed for electricity usage	

3. Impact Assessment and Mitigation

Table B. Environmental Aspect and Impact

Sr.	Activity List	Aspect	Impact
1	Raw materials	Overweight lifting	Injury from overweight lifting

	Storage and handling	Packing waste	Solid waste generation
			Fire hazard
		Conduct with resin glue chemical	Chemical hazard
2	Grinding	Operation of grinding machine	Solid waste generation
			Injury from grinding machine
3	Fiber making, resin spraying and drying	contact with resin glue (agent chemical)	Solid waste generation
			Emission to odor and dust
			Chemical hazard
4	Finishing product and packaging	By using rolling machine	Mechanical hazard
		Pieces of plastic/ paper box	Injury from overweight lifting
5	Storage of Diesel	Storage of diesel for driving machines	Oil leakage
			Fire hazard

Table C. Mitigation Measures

IMPACTS	Impact Source	Mitigation
Fire hazard	-Smoking in prohibited area - Wire shock by continuous electricity usage - Diesel storage for driving generator	1. Strictly prohibit smoking within factory compound 2. Clearly define and notify emergency exits 3. Passage ways must always be kept clean and clear 4. Regularly check and refill fire extinguishers 5. Exercise fire drill regularly

Solid Waste	- raw material waste - Pieces of fiber - Packing waste Plastic waste - General waste	1. Cleaning continuous and regularly 2. Pieces of fiber are reuse in process 3. Stacking waste bags systematically 4. Calling waste collector regularly 5. Providing adequate dust bins
Physical hazard	- Injury from overweight lifting - Contact steam - Ergonomics	1. Using necessary lifting and carrying aid apparatus and machinery 2. Using heat protective hand gloves for steaming process 3. Installing machine guards
Noise	- Operation of generator and machine	1. Carrying out regular maintenance works for all the equipment and generator 2. Installation cover in generator room for noise
Machinery hazard	- Operation machine	1.Wearing necessary PPE (goggle, hand gloves, ear muffs) 2.Regular inspection and cleaning of debris, dusts and oils on machine components 3. Regular inspection of lubricant leakage and refilling as necessary 4. Clearing work place of flammable materials before using machine 5. Installation safety guard on machine 6. Regular inspection of belt, gears, sprockets, chains, and other moving parts. 7. Systematically installing machine parts 8. Regular inspection of power cable 9. Preparing checklist, warning signs or lights of inspection for using machine and displaying at visible location near machine 10. Allow only qualified workers to operate or maintain machine.

		11. Install emergency stop devices on machine to enable workers to shut off the equipment within easy reach of workers.in an emergency.
Emission of odor and dust	- Contact with resin glue	1.Wearing necessary PPE (goggle, gloves) 2. Regular inspection and supervision of the usage of the masks for the workers working at odor producing areas 3. Installation of a particle monitoring meter 4. Temporarily stopping the works if PM 2.5 and PM 10 emission reached above 50 µg/m^3 in a day 5. Cleaning with dust collector
Chemical hazard	- Contact with resin glue	1. Taking temporary break upon the sign of nausea 2. Preventing chemicals from flowing into drainage 3. Providing washing places in the vicinity of workplace 4. Prohibiting eating, drinking and smoking at workplace 5. Educating workers with the information on MSDS

ENVIRONMENTAL MANAGEMENT PLAN
FOR
YU CHANG (MYANMAR) SPRAY COTTON CO. LTD

1 PROJECT DESCRIPTION

1.1 PROJECT OWNER

Yu Chang (Myanmar) Spray Cotton Co. Ltd is a Private Company Limited incorporated under the Myanmar Companies Act. Yu Chang (Myanmar) Spray Cotton Co. Ltd is a specialized company in Registration Department (DICA) with registration Number (120106600). This company is located NO. (3), Main Road, Block No.11/3 & 13/4+14/1, Lot No. 577, Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, and Yangon Region, Myanmar. The list of project data is shown in following table. The estimated investment for the Yu Chang (Myanmar) Spray Cotton Co. Ltd is US$ (1.920) million for 25 years.

Table 1. List of the Project data of Yu Chang (Myanmar) Spray Cotton Co. Ltd

No.	Project Data	Description
1	Company Name	Yu Chang (Myanmar) Spray Cotton Co. Ltd
2	Project Type	Manufacturing of synthetic resin for clothing such as jacket and warm coat for CMP factory enterprises
3	Location	NO. (3), Main Road, Block No.11/3 & 13/4+14/1, Lot No. 577, Kyaut Pone Kwin ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region, Myanmar
4	Project Owner	Mr.GUANGJUN, E49314474
5	Office Address	NO. (3), Main Road, Block No.11/3 & 13/4+14/1, Lot No. 577, Kyaut Pone Kwin ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region, Myanmar
6	Investment amount and period	US$ (1.920) million for 25 years

1.2 PROJECT OBJECTIVE

The project involves the production of a wide range of garments using the CMP system, which produces high-quality products of international standard by hand to international orders, in order to increase workers' skills. Just as the project owner, so does the state to receive relevant sector taxes and foreign currency. To provide employment opportunities to the people around the project; and 2% of business profits to support public development that follow CSR policy.

1.3 PRESENTATION OF THE ENVIRONMENTAL TEAM

Yu Chang (Myanmar) Spray Cotton Co. Ltd was arranged for EMP study and reporting for Yu Chang (Myanmar) Spray Cotton Co. Ltd factory. EMP team consists of the following team and sector-wise participants.

Table 2. EMP Team Member

Sr.	**Position**	**Area of Responsibility**
1	Factory Manager	Reporting and Public Consultation
2	Factory Engineer	Reporting Arrangement
3	HR Manager	Data Collection
4	Operation Supervisor	Data Collection

Table 3. Contact Data of Yu Chang (Myanmar) Spray Cotton Co. Ltd

Company Name	Yu Chang (Myanmar) Spray Cotton Co. Ltd
Address	NO. (3), Main Road, Block No.11/3 & 13/4+14/1, Lot No. 577, Kyaut Pone Kwin ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region, Myanmar
Ph.no/E-mail	09- 890092014/ emp.reporting.to.ecd@gmail.com

1.4 PROJECT LOCATION

Yu Chang (Myanmar) Spray Cotton Co. Ltd is located at NO. (3), Main Road, Block No.11/3 & 13/4+14/1, Lot No. 577, Kyaut Pone Kwin ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region, and Myanmar. The project area is (2.82) acres of land and it will include office, factory, security office, raw materials storage area, canteen and product storage area.

Figure 1. Location of Yu Chang (Myanmar) Spray Cotton Co. Ltd

The factory is located near lower Mingalardon Road road. The Factory construction operation was ended in 2020. The building period is 2 year.

1.5 LAYOUT PLAN

Yu Chang (Myanmar) Spray Cotton Co. Ltd is located at NO. (3), Main Road, Block No.11/3 & 13/4+14/1, Lot No. 577, Kyaut Pone Kwin ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region, and Myanmar. The project area is 1acres of land at latitude: 17° 5'16.96"N, longitude: 96° 3'29.32"E. Layout Plan of Yu Chang (Myanmar) Spray Cotton Co. Ltd is shown in appendix. Main building measurement of Yu Chang (Myanmar) Spray Cotton Co. Ltd is shown in following table.

Table 4.Main building measurement of Sanyuan (Myanmar) Dyeing and Finishing Company Limited

No.	Measurement	Number
1	(393×105) ft^2 Steel structure two floor building	(1) Building
2	(115×25) ft^2 Steel structure two floor building	(1) Building

1.6 RAW MATERIAL

Raw materials of Yu Chang (Myanmar) Spray Cotton factory is mainly comprise polyester, resin glue, woven interlining, Non- woven interlining and door interlining. Most of raw materials are import from china. Annual raw materials requirements and material safety data sheets are description in appendix.

Figure 2. Spray Cotton Storage Area

1.7 PRODUCTS

Products of Yu Chang (Myanmar) Spray Cotton factory are padding, quilting, fake down, wellon and ball fiber. Export products 30% are export to China textiles Company depend on order. Annual production is described in appendix.

Figure 3. Final Product Storage Area

1.8 ELECTRICITY SUPPLY

Yu Chang (Myanmar) Spray Cotton Co. Ltd purchase electricity from government power source. The plant has connection with government electricity transmission line with (1600) kV transformer, other electricity supply are 1000 kVA generators. The electrical power consumption of the factory is shown in appendix.

1.9 OPERATIONAL WORKFORCE

The work force during operation for the entire plant is (193) members and foreigner labor is about (15) person. Total operational workforce is (208) person for within 10 year. The working hours for the worker from the plant were (8) hrs from Monday to Friday and only Saturday for (4) hr. The employment list for the Yu Chang (Myanmar) Spray Cotton Co. Ltd is shown in appendix.

1.10 EQUIPMENT AND MACHINERY LIST

Equipment and Machinery lists used in Yu Chang (Myanmar) Spray Cotton Co. Ltd are described in appendix.

1.11 PROJECT OPERATION

The factory produces varieties of synthetic resin spray cotton for clothing such as jacket and warm coat as CMP factory enterprises. There are about (208) workers at the factory. Routine production works can be seen in the following flow diagram. Primary

production scheme is raw materials storing, grinding, fiber making, and thickness adjustment, resin spraying, drying, rolling, packing and loading.

Figure 4. Process Flow Diagram for Yu Chang (Myanmar) Spray Cotton Co. Ltd

The production process produces non liquid effluent and slightly gaseous emission from boiler and generator. Discharged waste water of factory was disposed to municipal drainage.

The process produce solid waste mainly consists of all process and these solid wastes are managed to collect by the government waste collector.

1.12 CURRENT CONDITIONS OF THE FACTORY

Yu Chang (Myanmar) Spray Cotton Co. Ltd is start construction operation process in current condition. Inspection Results of Current Conditions of the Factory is shown in table 5.

Table 5. Inspection Results of Current Conditions of the Factory

Sr.	Particular	Remark
1	Factory Entrance	
2	Drainage system	

3	Providing washing area for labor	
4	Fire extinguishers are provided within the factory compound	
5	Fire hose cabinets and fire alarm is provided for emergency cases	 

6	Emergency exits sign are installed	
7	Assembly point for emergency case	
8	Constructed fire safety unit for firefighting system	
9	Installed fully lighting	

10	Drinking Water treatment system was installed for labor	
11	Generator installed for electricity recovery	
12	250 kVA Transformer is installed for electricity usage	

2 TUBE WELL WATER

Water supply for Yu Chang (Myanmar) Spray Cotton Co. Ltd is obtains mainly from the tube well. Water is extracted from one tube well. Water is extracted from one tube well hand washing, bathing, toilets and kitchen.

2.1.1 Tube Well Water

Water supply for Yu Chang (Myanmar) Spray Cotton Co. Ltd is obtains mainly from the tube well and storage with water tank. Water is extracted from one tube well usage is hand washing, bathing, toilets and kitchen. Tube well water usage is 5000 l/day.

Tube well water sample is collected and analyzed at ISO Tech laboratory. The water has no color and odor. The pH of the water is 7.1 which are well within the limit of acceptable WHO drinking water value 6-9. Iron (0.24 mg/l) is lower than the acceptable limit of 0.3 mg/l (WHO) drinking water guideline. Other parameter is shown in following table.

Figure 5. Water Collection from Tube Well Water Pipe Line

Table 6. Tube well Water Quality Analysis Results

Sr	Particular	Unit	Tube Well Water	WHO Drinking Water guideline value (Geneva-1993)
1	pH	S.U	7.1	6.5 - 8
2	Colour	TCU	Nill	15
3	Turbidity	NTU	3	5
4	TDS	mg/l	98	1000
5	TSS	mg/l	5	1000
6	Iron	mg/l	0.24	0.3

7	Nitrate	mg/l	0.2	500
8	Magnesium	mg/l	8	-
9	Calcium	mg/l	18	-
10	Phosphate	mg/l	Nil	-

2.1.2 Waste Water Quality

Water is extracted from one tube well and this water is used for hand washing and toilets. In the factory, washing system was not including in operation steps. Therefore, the discharged water amount from the factory is low water content. Discharged waste water of Factory was disposed at settlement tank and to the outlet of YCDC drainage. Discharged waste water from Factory was collected from the factory outlet and analyzed at ISO Tech laboratory. The pH of the water is 7.7. The BOD and COD of wastewater are 20 mg/l and 64 mg/l. Therefore, the waste water results are the acceptable limit of NEQG Guideline.

Table 7. Wastewater Quality Analysis Result

Sr	Particular	Unit	NEQG	Discharge Waste Water
1	pH	S.U	6-9	7.7
2	BOD	mg/l	50	20
3	COD	mg/l	250	64
4	Colour	TCU	-	10
5	TSS	mg/l	-	22
6	Sulphate	mg/l	-	10
7	Ammonia Nitrogen	mg/l	-	0.61
8	Copper	mg/l	-	Nil

Figure 6. Outlet Drainage

2.2 SOLID WASTE

Yu Chang (Myanmar) Spray Cotton Co. Ltd is comprised solid wastes mainly of polyester fiber waste and packaging waste. Mainly, the solid waste (Domestic) from Yu Chang (Myanmar) Spray Cotton Co. Ltd is discharged by YCDC truck. Plastic, resin container wastes are disposing to waste collector such as government waste collector department or outside supplier. Polyester fiber waste was reuse in cotton forming and fiber grinding process. Following table depicts waste generation from the whole production process.

Systematic management of these solid wastes is of importance as mismanagement of the waste will lead critical occupational hazard including fire hazard. Solid waste generation and management system of Yu Chang (Myanmar) Spray Cotton Co. Ltd can be seen in the following figure.

Table 8. Waste Generation from Apparel Manufacturing

Sr.	Process	Waste
1	Raw material storage	Plastic, yarn piece and wood
2	Grinding	Polyester fiber pieces
3	Resin spraying	Resin container waste
4	Packaging	Plastic
5	Dining hall	Food waste
6	Toilet	Sewage

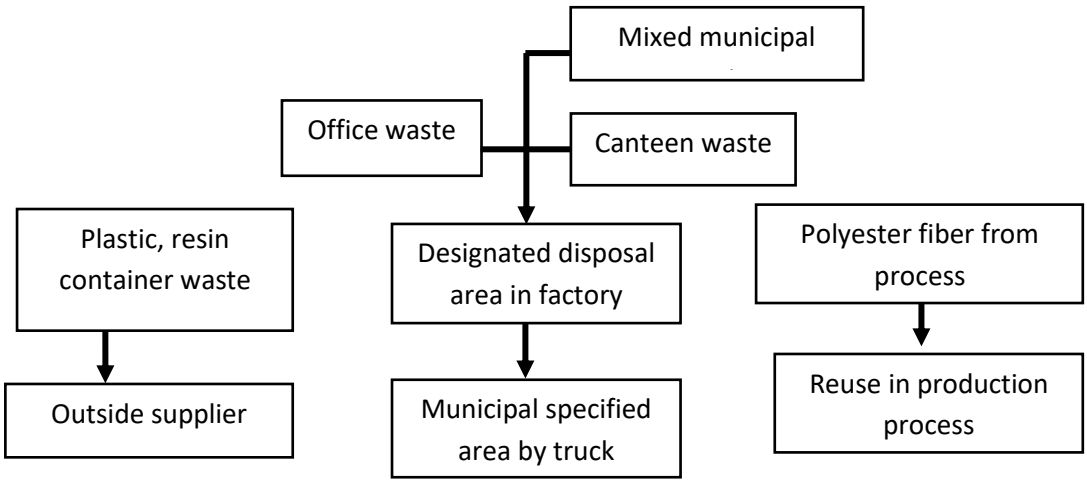


Figure 7. Waste Management System of Yu Chang (Myanmar) Spray Cotton Co. Ltd

2.3 SOIL QUALITY

One sample of soil was collected around the Yu Chang (Myanmar) Spray Cotton Co. Ltd to record the current condition of soil. The samples were analyzed for their physiochemical properties in Soil Laboratory, Land Use Department of Ministry of Agriculture and Irrigation. Typical issues relating to soil pH could be seen in the table below.

Potential negative impacts by the project relating to soil degradation may have occurred in the early project construction works. Such impacts include excavation, displacement or importation of soil, stockpiling, mixing, wetting, compaction and pollution of soil, Oil leakage and sedimentation. But the anticipated impacts on soil may have been occurred only to a limited area within the project compound.

According to test results, pH value of soil sample which was collected within the Yu Chang (Myanmar) Spray Cotton Co. Ltd which are slightly alkaline conditions. Under this condition, following phenomena would occur:

- Above a pH of 7.0 there is an increase in the availability of Iron, Manganese, Zinc, Cobalt, and Copper
- Increased risk of ammonia volatilization
- First increasing availability of Phosphorus and Boron, but deficiencies may occur at higher pH values
- Insoluble Calcium-Phosphates may be formed at higher pH
- Electric conductivity is generally high at higher pH values

Table 9. Soil pH and Associated Impacts

pH value	Soil classification	Impact interpretation
≤ 5.5	Strongly acidic	• Possible Aluminum toxicity and excess availability of Cobalt, Cupper, Iron, Manganese, and Zinc • Deficient in Calcium, Potassium, Nitrogen, Magnesium, Phosphorous, and Sulphur • Boron deficiency below pH of 5 • Molybdenum becomes more available with decreasing pH • Bacterial and actinomycete activity is reduced along with a predominance of fungi • Mineralization of organic matter and nitrification are restricted • Below a pH of 3, functioning of cell membranes is impaired, resulting in leakage of elements
5.5 - 7.3	Moderately acidic, slightly acidic, and neutral soils	• Preferred pH range for most crops, lower end of range may be too acidic for some • pH between the range of 6.0 and 7.0 hampers phosphorous fixation • Neutral pH favors the fixation of molecular Nitrogen by free living soil microorganisms and by symbiotic microorganisms • Above a pH value of 7.0 the availability of Iron, Manganese, Zinc, Cobalt, and Cupper declines
7.3 - 8.5	Slightly alkaline and Moderately alkaline soils	• Above a pH of 7.0 there is an increase in the availability of Iron, Manganese, Zinc, Cobalt, and Copper • Increased risk of ammonia volatilization • First increasing availability of Phosphorus and Boron, but deficiencies may occur at higher pH values • Insoluble Calcium-Phosphates may be formed at higher pH • Electric conductivity is generally high at higher pH values

≥ 8.5	Strongly to very strongly alkaline	• Calcium and magnesium are liable to become unavailable to most crops • Often high sodium levels lead to toxicity and structural damage • Toxicity of bicarbonates and other anions • Possible Boron toxicity common in saline and or sodic soils • Availability of most micronutrients and of Iron, Manganese, Zinc, Copper, and Cobalt is reduced, except for Molybdenum • Decreased

Table 10. Results of Soil Quality Analysis

Sample	Moisture %	pH Soil: Water 1:2:5	Texture				Organic Carbon	Humus %	Total N	Exchangeable cations		Available Nutrients	
			Sand %	Silt %	Clay %	Total %				Ca	Mg	P	K_2O
SS-1	3.37	7.24	56.36	19.96	23.68	100.00	0.58	1.00	0.15	26.89	5.52	8.28	18.01

Table 11. Interpretation of Soil Quality Results

Sample	pH Soil: Water	Texture	Organic Carbon	Total N	Exchangeable cations		Available Nutrients	
					Ca	Mg	P	K_2O
SS-1	Slightly alkaline	Sandy loam	Very Low	Low	High	Medium	Medium	Medium

Table 12. Soil Sampling Point of Yu Chang (Myanmar) Spray Cotton Co. Ltd

Sample	Latitude	Longitude	Location
SS-1	17° 5'17.79"N	96° 3'26.59"E	Factory Compound

Figure 8. Soil Sampling Point

Figure 9. Soil Sampling form Factory compound

3 AIR QUALITY

3.1 AIR MONITORING AND ENVIRONMENT

The main sources of air pollutant from the project area are the operation of the machine operation, diesel generator and vehicles moment and human activities.

3.2 SURVEY METHODOLOGY

Sampling and analysis of ambient air quality were conducted by referring to the recommendation of the United State Environmental Protection Agency (U.S. EPA). The Haz-Scanner Environmental Perimeter Air station (EPAS) was used to collect ambient air survey data. Sampling rate or air quality data were measured automatically every one minute and directly read and recorded onsite for measured parameter(NO_2, O_3, PM_{10}, PM2.5, SO_2, CO_2, CO, Relativity humidity, win speed, win direction and temperature), as shown in table.

Table 13.Air analysis info

Sample site	Yu Chang (Myanmar) Spray Cotton Co. Ltd	Sample I.D.	AS0921-03
Location (Township)	Hmawbi	Method	HAZ-SCANNER™ Model-EPAS
		Station height (elevation)	Ground
Location (Region / state)	Yangon	Latitude	17° 5'17.33"N
		Longitude	96° 3'27.14"E
		log on time (Date, Time)	2.9.2021(09:30 AM)
Air Monitoring Date	2.9.2021	log off time (Date, Time)	3.9.2021 (09:30 AM)
		Logging Duration (hours)	24 hours

Figure 10. Air Monitoring Point

3.3 IDENTIFICATION OF AIR POLLUTANTS AND ITS IMPACTS

The proposed Yu Chang (Myanmar) Spray Cotton Co. Ltd is operating the machines by the time monitoring the air quality. Therefore, the air station is set on to collect data of the current air quality impacted by operational works and moving vehicles for the transportation of loads. Therefore, the site has to measure the surrounding air quality to know whether SO_2, NO_2, CO_2, CO, $PM_{2.5}$ and PM_{10} are exceeding the limiting amount of National Environmental Quality Emission Guideline or not. The impacts of pollutants are defined below.

Carbon Monoxide (CO) is a toxic gas that cannot be seen or smelled. All people are at risk for CO poisoning. Unborn babies, infants, the elderly, and people with chronic heart disease, anemia, or respiratory problems are generally more at risk than others. Breathing CO can cause headache, dizziness and vomiting nausea. If CO levels are high enough, unconscious or death may be become. Exposure to moderate and high levels of CO over long periods of time has also been linked with increased risk of heart disease.

Carbon Dioxide (CO_2) is the primary greenhouse gas pollutant, accounting for nearly three-quarters of global greenhouse gas emissions. Carbon pollution leads to long lasting changes in our climate, such as rising global temperatures, rising sea level, changes in weather and precipitation patterns and changes in ecosystems, habitats and species diversity. Children, older adults, people living in poverty may be at risk from the health impacts of climate change.

Nitrogen Dioxide (NO_2) is a nasty-smelling gas. The main effect of breathing in raised levels of nitrogen dioxide is the increased likelihood of respiratory problems. Nitrogen dioxide inflames the lining of the lungs, and it can reduce immunity to lung infections. This can cause problems such as wheezing, coughing, colds, flu and bronchitis. Increased levels of nitrogen dioxide can have significant impacts on people with asthma because it can cause more frequent and more intense attacks. Children with asthma and older people with heart disease are most at risk.

Sulfur Dioxide (SO_2) is an invisible gas and has a nasty, sharp smell. It reacts easily with other substances to form harmful compounds, such as sulfuric acid, sulfurous acid and sulfate

particles. Sulfur dioxide affects human health when it is breathed in. It irritates the nose, throat and airways to cause coughing, wheezing, shortness of breath, or a tight feeling around the chest. The effects of sulfur dioxide are felt very quickly and most people would feel the worst symptoms in 10 or 15 minutes after breathing in. Those most at risk of developing problems if they are exposed to sulfur dioxide are people with asthma or similar conditions.

Ozone (O_3) has a strong odor. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. It can also reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue.

Particulate matter (PM) consists of microscopically small solid particles or liquid droplets suspended in the air. The smaller the particles, the deeper they can penetrate in to the respiratory system and the more hazardous they are to breathe. Long-term exposure to current ambient PM concentrations may lead to a marked reduction in life expectancy.

3.4 RESULT OF AIR QUALITY MEASUREMENT

CO, CO_2, NO_2, SO_2, O_3, PM_{10} and PM $_{2.5}$ are measured at the proposed project site. The site is in operation stage and the collected data shown below are due to the process activities. Air quality and noise result data report is described in appendix.

Table 14.Result of Air Quality

No	Parameters	Results		Avg. Period	Guideline value (NEQG)	Averaging Period
		Observed value	Converted value			
1	Nitrogen dioxide NO_2	27 ppb	50.7(µg/m^3)	1-hour*	40 (µg/m^3) 200 (µg/m^3)	1-year 1-hour
2	Ozone (O_3)	18 ppb	35.3(µg/m^3)	8-hour	100 (µg/m^3)	8-hour daily maximum
3	Particulate matter PM_{10}	21.7 (µg/m^3)		24-hour	20 (µg/m^3) 50 (µg/m^3)	1-year 24-hour
4	Particulate matter $PM_{2.5}$	10.9 (µg/m^3)		24-hour	10 (µg/m^3) 25 (µg/m^3)	1-year 24-hour
5	Sulfur dioxide SO_2	1.8 ppb	4.7(µg/m^3)	24-hour	20 (µg/m^3) 500 (µg/m^3)	24-hour 10 minute
6	Carbon dioxide CO_2	213 ppm		24-hour	-	
7	Carbon monoxide CO	1.6 ppb		24-hour	-	

4 NOISE

4.1 SOURCES OF THE NOISE

Since the place for measuring noise levels is a factory which produces operation machine, the noises produced are governed by the sound of the machine operated and by the workers.

4.2 NOISE MEASUREMENT METHOD

Handheld quick assessment method is used for the sound level by measuring the sound pressure. A tripod is used for mounting the sound level meter (SLM) where the SLM is mounted and pointed towards the source of the noise. The noise level of the proposed factory was measured by using TES -52A Advanced Sound Level Meter.

Figure 11. Noise Level Meter for Measuring Noise Level

Table 15.Result of Noise

National Emission Quality Guideline (NEQG) for Noise level

Receptor	**One Hour LAeq (dBA)a**	
	Daytime 07:00-22:00	**Night time 22:00-07:00**

	(10:00-22:00 for Public holidays)	**(22:00-10:00 for Public holidays)**
Residential, institutional, educational	55	45
Industrial, commercial	70	70

Table 16. The location of Noise sample point

No.	Sample Name	Myanmar Packtech Co., Ltd.		Location
		Latitude (N)	Longitude (E)	
1.	Noise Sample Point (NS)	17° 5'17.33"N	96° 3'27.14"E	In front of the factory building

Table 17. Average Values of Noise Level (dB) at the sampling point

Noise Sample Point	**Date/Time (2-9-2021)**	**Observed Noise Level (MeanValue) (dBA)**
NS	9: 30 -10:29	60.8
	10: 30-11: 29	60.1
	11: 30-12: 29	55.2
	12: 30-13: 29	51.9
	13: 30-14: 29	56.4
	14: 30-15: 29	58.6
	15: 30-16: 29	60.0
	16: 30-17: 59	57.1

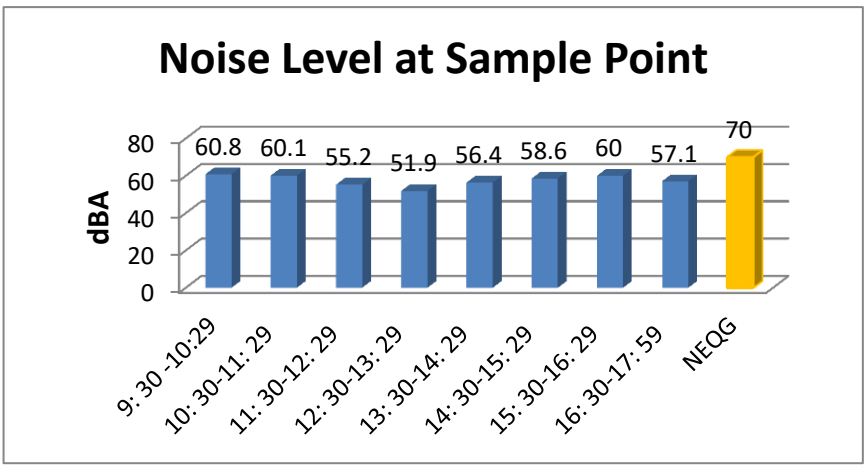


Figure 12. Air Quality Sampling

5 METEOROLOGY

5.1.1 Topography and Climate

The study area is located in Hmawbi Township of Yangon Region. The proposed factory is currently occupied by near villages, cultivated land. Therefore, the topography is no major differences in altitude. The climate of factory area is located in tropical wet and dry climate.

5.2 TEMPERATURE

Yangon has a tropical monsoon climate with very wet summers due to the southwest monsoon which starts from mid-May and lasts until mid-October. The warmest month with the highest average high temperature is April (37˚C) and the month with the lowest average high temperature is August (29.6˚C). The month with the highest average low temperature is May (25˚C) and the coldest month with the lowest average low temperature is January (17.9˚C).

Table 18. Average Temperature of Yangon in 2021

Sr	Month	Average High Temperature	Average Low Temperature
1	January	32.2˚C	17.9˚C
2	February	34.5˚C	19.3˚C
3	March	36˚C	21.6˚C
4	April	37˚C	24.3˚C
5	May	33.4˚C	25˚C
6	June	30.2˚C	24.5˚C
7	July	29.7˚C	24.1˚C
8	August	29.6˚C	24.1˚C
9	September	30.4˚C	24.2˚C
10	October	31.5˚C	24.2˚C
11	November	32˚C	22.4˚C
12	December	31.5˚C	19˚C

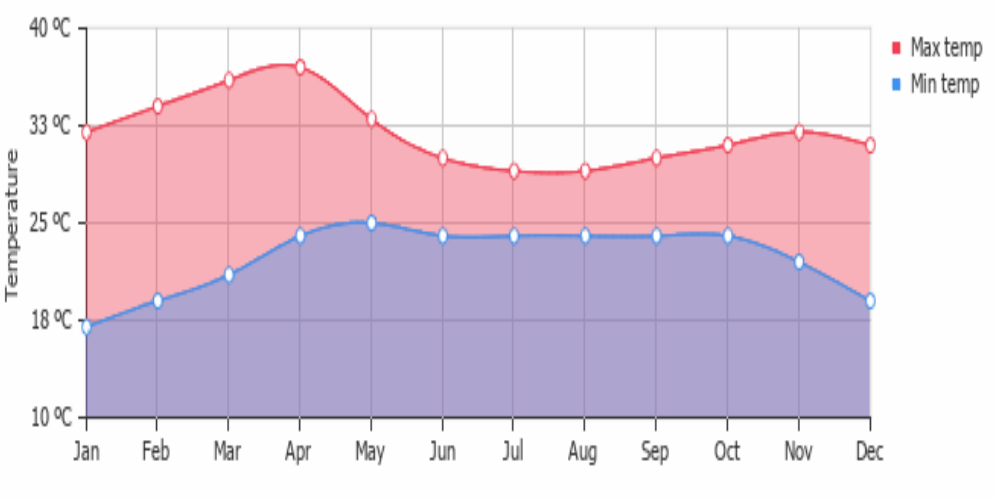


Figure 13. Temperature Graph of Yangon in 2021

5.3 RAINFALL

A lot of rain falls in the months of May, June, July, August, September and October. Yangon has dry periods in December January, February, March and April. The wettest month with the highest rainfall is August (602 mm) and the driest month with the lowest rainfall is February (2 mm). The month with the highest number of rainy days is July (26.2 days) and the months with the lowest number of rainy days are January, February and December (0.2 days).

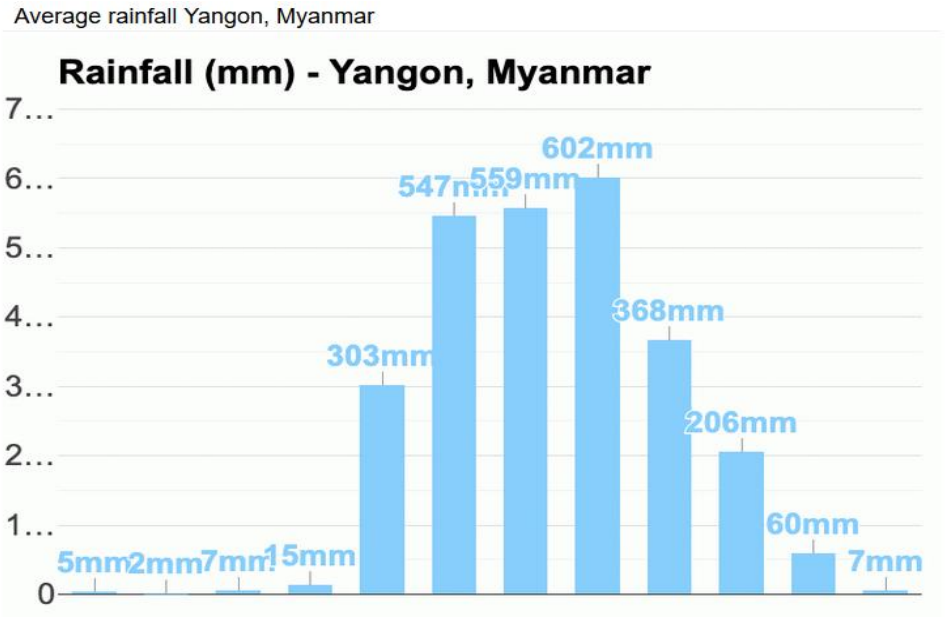


Figure 14. Rainfall Graph of Yangon in 2021

Table 19. Average Rainfall and Rainfall Days of Yangon

Sr	Month	Average Rainfall	Average Rainfall Days
1	January	5 mm	0.2 days
2	February	2 mm	0.2 days
3	March	7 mm	0.4 days
4	April	15 mm	1.6 days
5	May	303 mm	12.6 days
6	June	547 mm	25.3 days
7	July	559 mm	26.2 days
8	August	602 mm	26.1 days
9	September	368 mm	19.5 days
10	October	206 mm	12.2 days
11	November	60 mm	4.8 days
12	December	7 mm	0.2 days

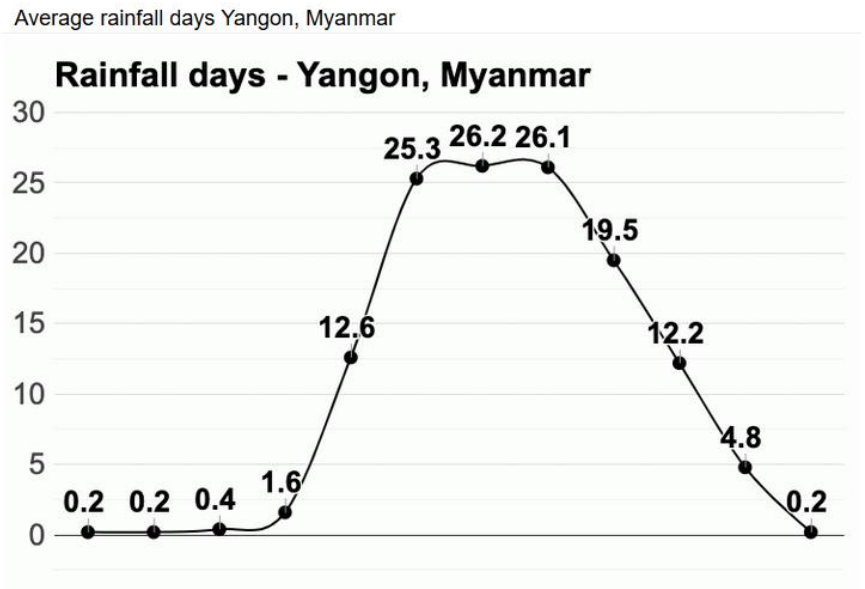


Figure 15. Rainfall Days Graph of Yangon

5.4 HUMIDITY

In 2019, August is the most humid and January is the least humid month in Yangon. The month with the highest relative humidity is August (87%) and the lowest relative humidity is January (62%).

Table 20. Average Humidity of Yangon

Sr	Month	Average Relative Humidity
1	January	62%
2	February	66%
3	March	69%
4	April	66%
5	May	73%
6	June	85%
7	July	86%
8	August	87%
9	September	85%
10	October	78%
11	November	71%
12	December	65%

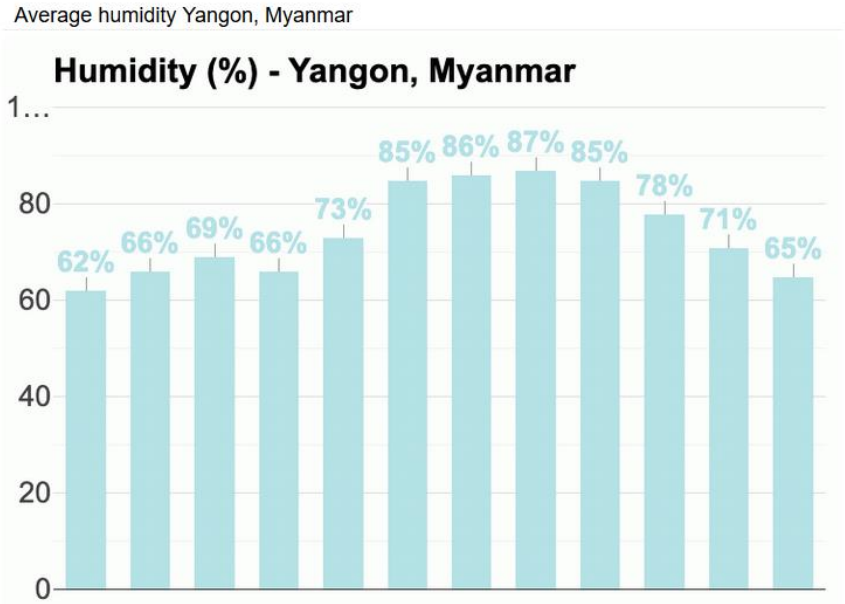


Figure 16. Humidity Graph of Yangon

5.5 DAYLIGHT/ SUNSHINE

Sunshine hours of Yangon are range from 2:29 daily in July to 9:44 to each day in January. The longest day of the year is 13:10 hr and the shortest day is 11:1 hr long. The longest day is 2:00 longer than the shortest day. The month with the longest day in June (average daylight: 13.1 h) and the month with the shortest day in December (average daylight: 11.1 h). Months with the most sunshine are January, February and April (average sunshine: 9.7 h) and the month with the least sunshine is July (average sunshine: 2.5 h).

Table 21. Average Daylight and Sunshine Hours of Yangon

Sr	Month	Average Daylight	Average Sunshine
1	January	11.3 hr	9.7 hr
2	February	11.6 hr	9.7 hr
3	March	12.1 hr	9.4 hr
4	April	12.5 hr	9.7 hr
5	May	12.9 hr	5.8 hr
6	June	13.1 hr	2.7 hr
7	July	13 hr	2.5 hr
8	August	12.7 hr	3 hr
9	September	12.2 hr	3.2 hr
10	October	11.8 hr	6.5 hr
11	November	11.3 hr	9.3 hr
12	December	11.1 hr	9.3 hr

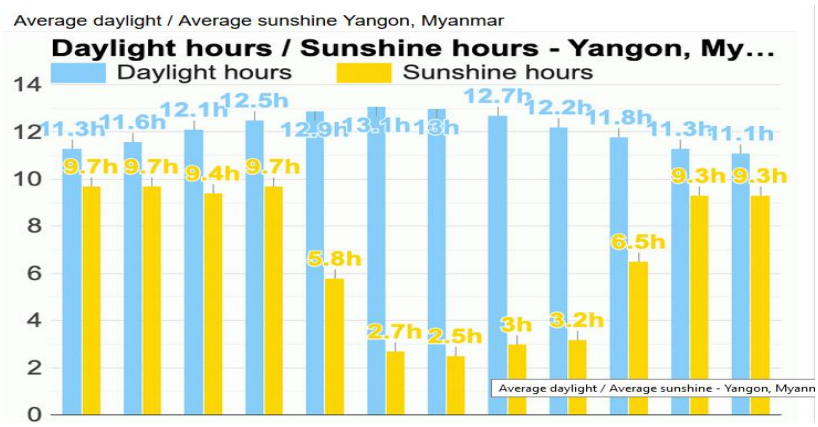


Figure 17. Day Light and Sunshine Hours graph of Yangon

5.6 UV INDEX

Months with the highest UV index of Yangon are March, April, May, June, July, August and September (UV index 12) and the month with the lowest UV index is December (UV index 8).

Table 22. Average UV Index of Yangon

Sr	Month	Average UV Index
1	January	9
2	February	11
3	March	12
4	April	12
5	May	12
6	June	12
7	July	12
8	August	12
9	September	12
10	October	11
11	November	9
12	December	8

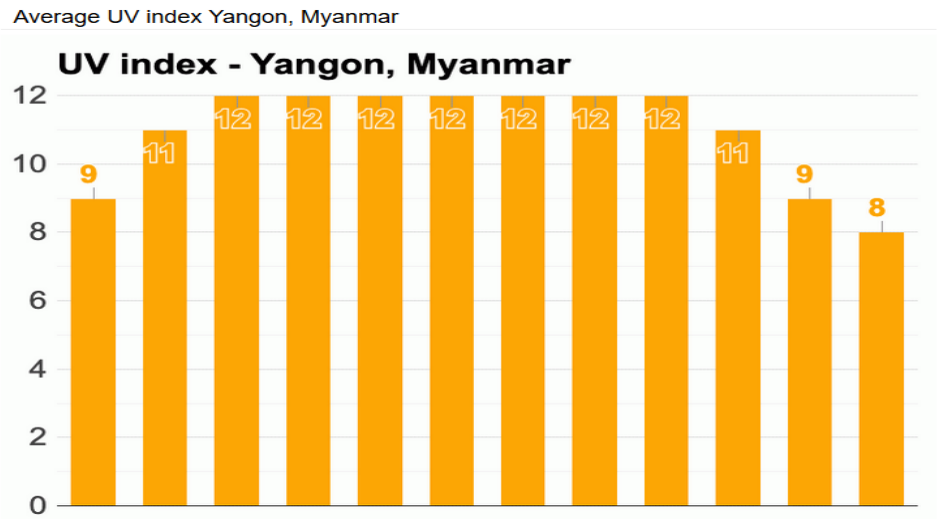


Figure 18. UV Index Graph of Yangon

6 SOCIO-ECONOMIC COMPONENTS

Socio-economic factors are lifestyle components and measurements of both financial viability and social standing. They directly influence social privilege and levels of financial independence. Factors such as health status, income, environment and education are studied by sociologists in terms of how they each affect human behaviors and circumstances.

6.1 LIVING CONDITIONS

The project area is located lot NO. (3), Main Road, Block No.11/3 & 13/4+14/1, Lot No. 577, Kyaut Pone Kwin ward, Innluk Village Tract, Hmawbi Township, Yangon Region, Myanmar. The total number of households in Hmawbi is 40440 only. The following table and figure show the household numbers in the study area.

Table 23. Household Numbers in the Study Area

No	Location	Number of House hold	Quarter	Village tract	Village
1	Hmawbi township	4000	4	-	-
2	Village in Hmawbi township	36440	-	39	195
Total		40440	4	39	195

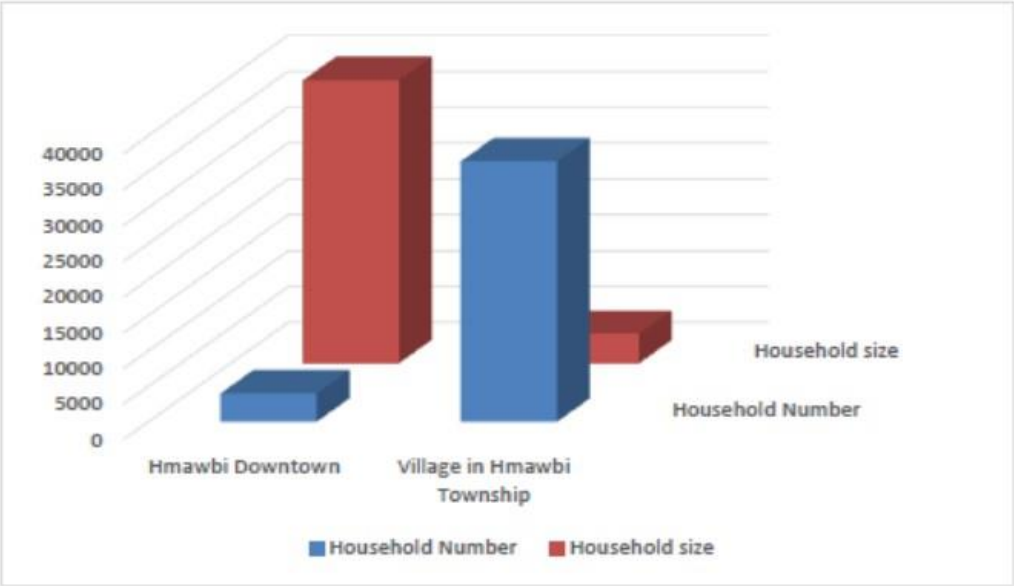


Figure 19. Types of housing unit in the Study Area

The average household size in the study area is shown in the following figure. All the villages have significantly higher rate of population per household compared to that of

Hmawbi Township. For the whole study area, average household size of village in Hmawbi Township is about 25000 which is remarkably higher than the household sizes of Hmawbi city (36530).

Total number of populations in the study area is depicted in Population Matrix. The matrix shows the distribution of both sexes (male and female) counted by their age (0 to 100). The total population of Hmawbi Township is 193310. According to the matrix, the highest number of populations in both sexes is young and reproductive age, 18 and the older population, under age 18, is the lowest.

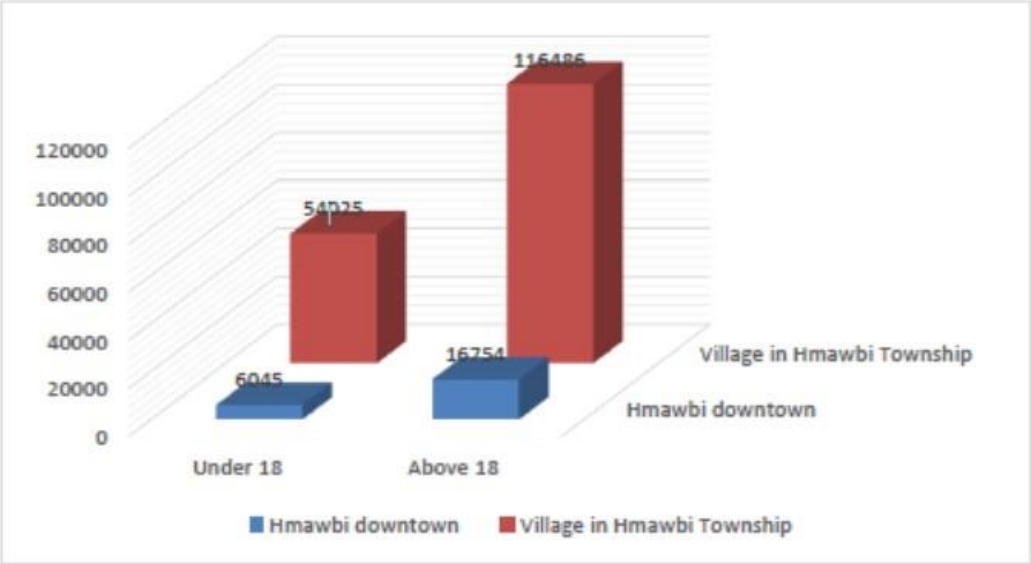


Figure 20. Population of the Study Area

6.2 EMPLOYMENT

Private employee is the most conspicuous living with about 35% of the people in the local area is working. Second most dominant type is daily wages with about 21% of the working force. Approximately 28% of the people in the resident area is working in agriculture and running private business. Following figures show the employment of local community.

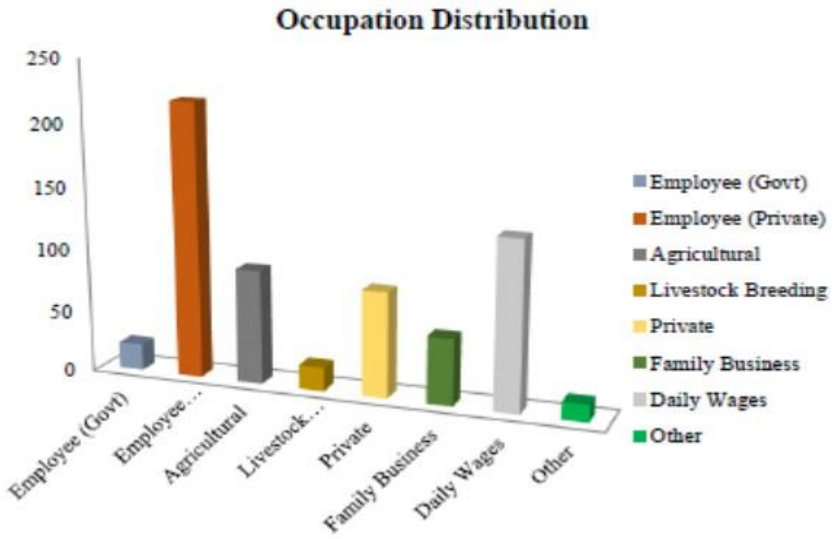


Figure 21. Employments in the Study Area

6.3 RELIGION DISTRIBUTION

The most dominant religion in the study area is Buddhism with approximately 91 % of total population. The other religion shares the remaining two percentages with 7.37 % of Christian, 0.33% and 1.19% of Hindu and Islam respectively. Table 18 is the descriptive table of Religion distribution of local community with frequency, percentage and Cumulative percentages values.

6.4 EDUCATIONAL ATTAINMENT

6.9% of the population 25 years of age and older are completely out of school. Only 7.1% of the population aged 25 years and over were out of school. 4.5% of men over 25 years old and 9.1% of women are out of school. 20.7% of the population aged 25 and above had completed primary schooling, with 10.1% in university / college. Current educational attainment levels show the local community's past education condition. Hospitality and tourism business need a fair to high level of educational attainment. Background educational attainment of local community shows that the project needs to concentrate capacity building of local community so that they could participate in the development process.

1. Communicate the environmental policy and documents to all employees and make available to public.
2. Incorporate environment-friendly as part of corporate culture, norm, and mindset.

7 BIODIVERSITY

Biodiversity includes two portions, which are the study of vegetation (flora) and the study of living animals (fauna). There is no natural vegetation, wildlife and deforestation in factory surrounding area.

8 LEGAL REQUIREMENTS

The Laws, Rules and Procedures should be compliance From Yu Chang (Myanmar) Spray Cotton Co. Ltd is as follows.

1. Environmental Conservation Law (2012)
2. Employment and Skill Development Law (2013)
3. Factory Act (1951)
4. Minimum Wages Law (2013)
5. Myanmar Fire Bridgate Law (2015)
6. Occupational Safety and Health Law (2019)
7. The Labour Organization Law (2011)
8. The Settlement of Labour Dispute Law (2012)
9. The Leave and Holiday Act (1951)
10. The Prevention of Hazard from Chemical and related Substances Law (2013)
11. The Control of Smoking and Consumption of Tobacco Product Law (2006)
12. The Prevention of Hazard from Chemical and related Substances Law (2013)

8.1 ENVIRONMENTAL CONSERVATION LAW

Myanmar enacted the ***Environmental Conservation Law*** on 30th March, 2012 as Pyidaungsu Hluttaw Law No.9/2012. There are eight objectives of the law which stress on (i) implementation of Myanmar National Environmental Policy, (ii) integration of environmental conservation in sustainable development, (iii) emerging healthy and clean environment and conserving natural and cultural resources, (iv) reclaiming ecosystems, (v) sustainable and beneficial use of natural resources, (vi) promoting public awareness and cooperation, (vii) promoting international cooperation, (viii) and cooperation with government departments, INGOs, NGOs and individuals for the matters of environmental conservation. There are 42 paragraphs in 14 sections of the law.

Table 24. Relevant Stipulations in Environmental Conservation Law

Sr.	Paragraph	Stipulation
1	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.
2	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.
3	16	A person or organization operating business in the industrial estate or business in the special economic zone 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' charges or management fees for the environmental conservation according to the relevant industrial estate, special economic zone and business organization; (c) shall comply with the directives issued for environmental conservation according to the relevant industrial estate, special economic zone or business.
4	39 (b)	If any terms and conditions of environmental conservation contained in the prior permission for a business is not complied with, the power to cancel the issued license, permit or register or suspend it for a limited period is granted for relevant government department, or government organization.

8.2 EMPLOYMENT AND SKILL DEVELOPMENT LAW

With the objectives to facilitate employment which is appropriate to the age and ability of the job seeker, to help workers obtain employment and to provide stability of employment and skills development for employees, to help employers obtain appropriate employees, the Employment and Skill Development Law came into force in late 2013. The law stipulates the facts required to be included and specified in the employment agreement between the employer and employee.

The law stipulates that a company must enter into written employment contracts with Myanmar citizens and foreign staff within 30 days of employment. A Standard Employment Contract is issued which is applicable to all employees, public and private, and shall be deemed to apply in all cases where the employee's written contract is silent. The Standard Employment Contract is largely provided for convenience. It allows employers and employees to vary the terms of the Standard Employment Contract so long as the variation is not in contravention of Myanmar's labor and employment laws.

Furthermore, an employment agreement may address issues such as job description, place of employment, working hours, wages and benefits, probation period, termination, and duration of the contract. Employee performance and work standards may be inserted into the employment contract too.

8.3 FACTORY ACT

The act outlines provisions for working hours for a week, interval between continuous working hours, maximum working hours per day, and working days per week. It also stipulates maximum overtime working hours, overtime wage, worksite safety and health measures as well as welfare measures for workers. Welfare measures includes washing and cleaning facilities, seats first aid boxes, factory clinic, recreation center and canteen and child nursery center.

8.3.1 Working hours

- Shall not exceed 8 working hours per day or 44 hours per week
- Shall not exceed 48 hours per week for the work which has to be done continuously
- There must be a minimum 30 minutes interval after each 5 working hours
- The combined working hours and interval time shall not exceed 10 hours per day
- The working days shall not exceed 6 days per week

- There must be one day holiday each week (Sunday). If Sunday service is required, there must be a substitution of another day.

8.3.2 Overtime

- Shall not exceed more than 16 hours per week or, for continuous work, 12 hours per week
- The overtime wage shall be calculated as double the basic wage
- Permission of Factories and the General Labour Law Inspection Department must be obtained for an approval of a constant overtime policy.

8.3.3 If working on days-off

- Comply in accordance with the overtime and general working hour provisions
- There must be substituted an alternative day-off.

8.3.4 Calculation of overtime wages

- For salary earners: Overtime wage per hour = {(salary x 12 month) / 52 week x 44 (48) hrs} x 2
- For daily wages worker: Overtime wage per hour = {(daily wage x 6 day) / 44 (48) hrs} x 2
- Piece-work labourers: Overtime wage per hour = {(daily average wage x 6 day) / 44 (48) hrs} x 2

8.3.5 Worksite Safety and Health Measures

- The factory must be kept clean and the workspace must be situated away from drains, latrines or other things which create a bad or unhealthy smell.
- There must be proper ventilation, light and heat.
- There must be no dust or smoke in the hall or factory.
- There must be clean drinking water in proper places for all workers.
- Population of workers must not be dense and there must be sufficient light.
- The latrines must be in suitable places.
- The generators and other auxiliary units must be kept undercover.
- There must be arrangements made for any emergency cut out of electricity service.
- In weaving or spinning machines, any female workers and any children must not be allowed to handle.

- Females and young workers are not allowed to lift heavy loads.
- Floors, stairs and paths must be well-built and hand rails are to be built and necessary covers must be placed.
- In every factory, the arrangement of escape routes and fire alarms must be kept.

8.3.6 Welfare

- There must be washing and cleaning facilities for workers.
- There must be sufficient seats for workers if a chance is given for sitting.
- There must be sufficient First Aid Boxes.
- If the workers in a factory exceed 250, doctors or nurses in clinic are to be appointed.
- If the workers of a factory exceed 100, recreation centers and canteens are to be kept for food.
- For factories with over 50 female workers, there must be a child nursery center available for the children under 6 year of age.

8.4 MINIMUM WAGES LAW

8.4.1 Duties of the Employer

- 3,600 kyats per 8-hour working day (450 kyat/hour) shall be the minimum wage paid to skilled employees of companies with more than 15 employees in all industries, throughout all of Myanmar.
- 50% of the minimum – 1,800 kyats per 8-hour working day (225 kyats/hour) – may be paid to completely unskilled newly hired workers engaged in a training/induction program up to a maximum of 3 months.
- 75% of the minimum – 2,700 kyats per 8-hour working day (338 kyats/hour) – may be paid to newly hired employees during their 2nd 3 months of employment, regarded as a ‘probationary period’.

8.4.2 Penalty for violation

- If anybody violates the law they may be punished with a maximum of one year imprisonment or with a maximum of five hundred thousand kyats fine or with both
- If anybody violates the rules and orders they may be punished with a maximum of three months’ imprisonment or with a fine or with both.

8.5 MYANMAR FIRE BRIDGATE LAW

Myanmar Fire Bridget Law was enacted in 13th waning of Taboung, 1376 M.E (17, March, 2015). The objectives of this law are as follows:

i. To prevent destruction of State-owned property, private property, cultural heritage and the lives and property of the public by fire and other natural disaster;
ii. To organize the fire brigade systematically and to train members of the fire brigade;
iii. To carry out extinguishing fire, prevention and search and rescue when fire, other natural disaster, epidemic disease or any kind of sudden disaster occurs;
iv. To educate, organize and incite extensively so as to achieve public cooperation when any disaster occurs;
v. To participate and help, if necessary, for the State safety, peace of the public and the rule of law.

8.6 OCCUPATIONAL SAFETY AND HEALTH LAW

The objectives of this Law are given hereunder:

a. to implement Occupational Safety and Health matters effectively in the respective Industries/Businesses;
b. to determine the duties of relevant persons applicable under this Law including Employers and Workers to lessen and mitigate occurrence of Occupational Diseases and Occupational Accidents;
c. to cause relevant persons applicable under this Law, Employers and Workers to take precaution and prevention against occupational hazards and Occupational Diseases;
d. to improve the productivity and health of Workers by preventing the occurrence of Occupational Accidents and Occupational Diseases for their safety;
e. to create Workplaces that are safe and good for health by prescribing the Occupational Safety and Health standards relevant to the Union's status after considering international and regional standards; and
f. to support and help research activities carried out for the development of Occupational Safety and Health matters.

8.7 THE LABOUR ORGANIZATION LAW

The objective of this law is to protect the rights of the workers, to have good relations among the workers or between the employer and the worker, and to enable to form and carry out the labor organizations systematically and independently.

The Law emphasized for the employer is as follows.

1. The employer shall recognize the labor organizations of his trade as the organizations representing the workers.
2. The employer shall allow the worker who is assigned any duty on the recommendation of the relevant executive committee to perform such duty not exceeding two days per month unless they have agreed otherwise. Such period shall be deemed as if he is performing the original duty of his work.
3. The employer shall assist as much as possible if the labour organizations request for help for the interest of his workers. However, the employer shall not exercise any acts designed to promote the establishment or functioning of labour organizations under his domination or control by financial or other means.

8.8 THE SETTLEMENT OF LABOUR DISPUTE LAW

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.

In any trade in which more than 30 workers are employed, the employer, with the view to negotiating and concluding collective agreement, shall:

(a) if there is any labor organization, form the Workplace Coordinating Committee with the view to make a collective bargaining as follows:
   (i) two representatives of workers nominated by each of the labour organizations;
   (ii) an equivalent number of representatives of employer;

(b) if there is no labor organization, form the Workplace Coordinating Committee as follows:
   (i) two representatives of workers elected by them;
   (ii) two representatives of employer.

8.9 THE LEAVE AND HOLIDAY ACT

8.9.1 Causal Leave (6) days

- Casual leave of 6 days with wages is to be provided
- Causal leave can be taken a maximum of 3 days at a time except in special cases
- Causal leave cannot be joined with any other leave
- Leave will be cancelled if it has not been used within a year

8.9.2 Earned leave (10) days

- For continuous service of 12 months and above, 10 days of 'earned leave' shall be entitled
- If the service day is not 24 days 1-day deduction from earned Leave is made; –
- Can be accumulated for up to 3 years.

8.9.3 Medical Leave (30) days

- Workers are entitled to 30 days of medical leave with full pay if 6 months service has been completed
- If 6 months service has not been completed, 'leave without pay' can be granted for medical needs
- Medical leave can be joined with Earned Leave
- If not taken within a year, medical leave is void or cancelled.

8.9.4 Maternity leave

- Workers requiring it are entitled to 6 weeks maternity leave before confinement and at least (8) weeks after confinement
- Can be entitled jointly with medical leave.

8.9.5 Public Holidays (21) days

- Workers can enjoy time off with full pay.
- If work is given on a public holiday, twice the rate of regular wages is required.

8.10 THE PREVENTION OF HAZARD FROM CHEMICAL AND RELATED SUBSTANCES LAW

Pyidaungsu Hluttaw Law (No, 28) The 5th Waning of Wagaung 1375 M.E (26th August, 2013and the Pyidaungsu Hluttaw hereby enacts Law on Prevention of Hazard from Chemical and Related Substances Law. This Law shall apply to all existing or new standard within the Union on the date of entry into force of this Law. The highlight of this Law is as follows:

(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.

8.11 THE CONTROL OF SMOKING AND CONSUMPTION OF TOBACCO PRODUCT LAW

This Law was enacted in 2006. The objectives of the Law are:

(a) To convince the public that health can be adversely affected due to smoking and consumption of tobacco product and to cause refraining from the use of the same;

(b) To protect from the danger which affects public health adversely by creating tobacco smoke- free environment;

(c) To obtain a healthy living style of the public including child and youth by preventing the habit of smoking and consumption of tobacco product;

(d) To uplift the health, economy and social standard of the public through control of smoking and consumption of tobacco product;

8.12 THE PREVENTION OF HAZARD FROM CHEMICAL AND RELATED SUBSTANCES LAW

Pyidaungsu Hluttaw Law (No, 28) The 5th Waning of Wagaung 1375 M.E (26th August, 2013and the Pyidaungsu Hluttaw hereby enacts Law on Prevention of Hazard from Chemical and Related Substances Law. This Law shall apply to all existing or new standard within the Union on the date of entry into force of this Law. The highlight of this Law is as follows:

(e) To protect from being damaged the natural environment resources and being hazardous any living beings by chemical and related substances;

(f) To supervise systematically in performing the chemical and related substances business with permission for being safety;

(g) To perform the system of obtaining information and to perform widely educative and research for using the chemical and related substance systematically;

(h) To perform the sustainable development for the occupational safety, health and environmental conservation.

9 IMPACT ASSESSMENT AND MITIGATION

Rating matrix method is used to assess the significance level of the identified environmental impacts of the Yu Chang (Myanmar) Spray Cotton Co. Ltd on its environment. There are five parameters considered for the activities of the projects and the consequences resulted from the said activities. System of rating is described in detailed as follows.

Table 25. Impact Rating Table

Severity	Value	Duration	Value	Spatial Scope	Value	Frequency	Value	Probability	Value
Insignificant/non-harmful	1	One day to one month	1	Activity specific	1	Annual or less	1	Almost impossible	1
Small/potentially harmful	2	One month to one year	2	Within right of way/project compound	2	Bi-annual	2	Highly unlikely	2
Significant/slightly harmful	3	One year to ten years	3	Local area	3	Monthly	3	Unlikely	3
Great/ harmful	4	Life of operation	4	National	4	Daily Intermittence	4	Possible	4
Disastrous/ deadly harmful	5	Permanent	5	Global	5	Daily Continuous	5	Definitely	5

Table 26. Rating Matrix

	Consequence (Severity + Spatial Scope + Duration)														
Activity (Frequency + Probability)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90
	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105
	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120
	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150

Table 27. Significance Levels

Sr.	Color Code	Value	Rating
1		1-25	Very Low
2		26-50	Low
3		51-75	Low-Medium
4		76-100	Medium-High
5		101-125	High
6		126-150	Very High

Table 28. Environmental Aspect and Impact

Sr.	Activity List	Aspect	Impact
1	Raw materials Storage and handling	Overweight lifting	Injury from overweight lifting
		Packing waste	Solid waste generation
			Fire hazard
		Conduct with resin glue chemical	Chemical hazard
2	Grinding	Operation of grinding machine	Solid waste generation
			Injury from grinding machine
3	Fiber making, resin spraying and drying	contact with resin glue (agent chemical)	Solid waste generation
			Emission to odor and dust
			Chemical hazard
4	Finishing product and packaging	By using rolling machine	Mechanical hazard
		Pieces of plastic/ paper box	Injury from overweight lifting
5	Storage of Diesel	Storage of diesel for driving machines	Oil leakage
			Fire hazard

Characteristics of the impacts are evaluated based on eight particular bases, four of which are used in the assessment of the significance level of the impacts.

Table 29. Characteristics of the Impacts

IMPACTS	CHARACTERISTICS							
	Nature	**Impact Source**	**Impact Receptor**	**Severity**	**Duration**	**Spatial Scope**	**Frequency**	**Probability**
Physical hazard	Negative	-Injury from overweight lifting - Operation machine - Ergonomics	Workers	Impact severity is significant for operation workers	Physical hazard will occur in project life	Physical hazard will occur at the project area of activity	Activity that cause the impact occurs daily intermittently	Physical hazards are possible
Fire hazard	Negative	-Smoking in prohibited area - Wire shock by continuous electricity usage - Diesel storage for driving generator - Chemical storage	Workers and the whole plant	Impact severity is harmful	Fire hazard will occur the whole project life	If a fire broke out, the whole project is likely to be affected	Fire hazard can occur daily intermittently	A fire hazard is possible

Solid Waste	Negative	- Raw materials Storage - Operation of cutting machine	Workers and local environment	Impact severity is potentially harmful if solid wastes are discharged systematically	Impact from solid waste will occur in project life	Local area could be affected by solid waste mismanagement	Solid waste impact occurs daily intermittently	Impact from solid wastes are possible
Noise	Negative	- Operation of generator and machine	Workers	Impact severity is small occurs almost continuously and most of the workers are subjected to exposure	Noise hazard will occur in project life	Noise hazard will occur within the whole project compound	Activity that cause the impact occurs daily continuously	Noise hazard are unlikely
Machinery hazard	Negative	- Operation machine	Workers and the whole plant	Impact severity is slightly harmful for operation workers	Machinery hazard will occur in project life	Machinery hazard will occur at the project area of activity	Activity that cause the impact occurs daily intermittently	Machinery hazard are possible
Emission of odor and dust	Negative	- Contact with resin glue	Workers	Impact severity is slightly harmful if air emissions are out	Air emission will occur in project life	Air emission could spread to project	Air emissions occur daily	According to current condition, air

				of NEQG limit		compound	Intermittence operation	emission out of NEGQ limit is possible to occurs
Chemical Hazard	Negative	- Contact with resin glue	Workers	Impact severity is slightly harmful for operation workers	Chemical hazard will occur in project life	Chemical hazard will occur at the project area of activity	Activity that cause the impact occurs daily intermittently	Chemical hazards are possible

Table 30. Assessment of the Significance of the Impacts without MEMs

Sr	Impact	Severity	Duration	Spatial Scope	Frequency	Probability	Total Rating	Significance Level
1	Fire hazard	4	4	2	4	4	80	Medium-High
2	Solid waste	2	4	3	4	4	72	Low-Medium
3	Physical hazard	3	4	1	4	4	64	Low-Medium
4	Noise	2	5	3	5	3	80	Medium-High
5	Machinery hazard	3	5	3	4	4	88	Medium-High
6	Emission to air of odor and dust	3	4	2	4	4	72	Low- Medium
7	Chemical hazard	4	4	3	5	4	99	Medium - High

10 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 31. Mitigation Measures for Anticipated Impacts

IMPACTS	Impact Source	Mitigation
Fire hazard	-Smoking in prohibited area - Wire shock by continuous electricity usage - Diesel storage for driving generator	1. Strictly prohibit smoking within factory compound 2. Clearly define and notify emergency exits 3. Passage ways must always be kept clean and clear 4. Regularly check and refill fire extinguishers 5. Exercise fire drill regularly
Solid Waste	- Raw material waste - Pieces of molding waste - Packing waste Plastic waste - General waste	1. Cleaning continuous and regularly 2. Pieces of molding waste are reuse in process 3. Stacking waste bags systematically 4. Calling waste collector regularly 5. Providing adequate dust bins
Physical hazard	- Injury from overweight lifting - Contact steam - Ergonomics	1. Using necessary lifting and carrying aid apparatus and machinery 2. Using heat protective hand gloves for steaming process 3. Installing machine guards
Noise	- Operation of generator and machine	1. Carrying out regular maintenance works for all the equipment and generator 2. Installation cover in generator room for noise
Machinery hazard	- Operation machine	1.Wearing necessary PPE (goggle, hand gloves, ear muffs) 2.Regular inspection and cleaning of debris, dusts and oils on machine components 3. Regular inspection of lubricant

		leakage and refilling as necessary 4. Clearing work place of flammable materials before using machine 5. Installation safety guard on machine 6. Regular inspection of belt, gears, sprockets, chains, and other moving parts. 7. Systematically installing machine parts 8. Regular inspection of power cable 9. Preparing checklist, warning signs or lights of inspection for using machine and displaying at visible location near machine 10. Allow only qualified workers to operate or maintain machine. 11. Install emergency stop devices on machine to enable workers to shut off the equipment within easy reach of workers.in an emergency.
Emission of odor and dust	- Contact with resin glue	1.Wearing necessary PPE (goggle, gloves) 2. Regular inspection and supervision of the usage of the masks for the workers working at odor producing areas 3. Installation of a particle monitoring meter 4. Temporarily stopping the works if PM 2.5 and PM 10 emission reached above 50 µg/m^3 in a day 5. Cleaning with dust collector
Chemical hazard	- Contact with resin glue	1. Taking temporary break upon the sign of nausea 2. Preventing chemicals from flowing into drainage 3. Providing washing places in the vicinity of workplace 4. Prohibiting eating, drinking and smoking

		at workplace 5. Educating workers with the information on MSDS

11 ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

Management and Monitoring Plans are to address and satisfy directly for all applicable environmental management and monitoring issues which are

1. Fire hazard
2. Solid waste
3. Physical hazard
4. Noise
5. Machinery hazard
6. Emission to air of odor and dust
7. Chemical hazard

11.1 FIRE HAZARD

Fire is the greatest threat for factories around the world. Common ignition sources include improper or poorly maintained electrical equipment and related chemical reagents. Fire can easily break out with any sparking source. Moreover, fire hazard is greater if emergency exit is poorly provided. Blockages in passage ways by stacks of raw materials and products will add a greater fire hazard. Common ignition sources include improper or poorly maintained electrical equipment and malfunction of grain-moving machinery. This factory installed fire alarm, fire hydrate and fire extinguishers to prevent fire hazard.

Table 32. Objective and Legal Requirements for Fire Hazard

1	Objectives	To prevent and reduce fire hazard by the implementation of a systematic management and monitoring plan
2	Legal Requirements	1. Myanmar Fire Brigade Law Paragraph (14 C, 25)
3	Mitigation Measure	1. Strictly prohibit smoking within factory compound
		2. Clearly define and notify emergency exits
		3. Passage ways must always be kept clean and clear

		4. Regularly check and refill fire extinguishers
		5. Exercise fire drill regularly

Table 33. Management Actions for Fire Hazard

Sr.	Mitigation Measures	Management Actions
1	Strictly prohibit smoking within factory compound	Regular inspection and supervision
2	Clearly define and notify emergency exits	Regular inspection and supervision
3	Passage ways must always be kept clean and clear	Regular inspection and supervision
4	Regularly check and refill fire extinguishers	Regular inspection
5	Exercise fire drill regularly	Regular inspection and supervision

Table 34. Implementation Plan for Fire Hazard

Sr.	Management Action	Frequency	Duration	Responsibility
1	Strictly prohibit smoking within factory compound	Daily	Project life	HR Dept
2	Clearly define and notify emergency exits	Daily	Project life	HR Dept
3	Passage ways must always be kept clean and clear	Daily	Project life	HR Dept
4	Regularly check and refill fire extinguishers	Daily	Project life	HR Dept
5	Exercise fire drill regularly	3 times/yr	Project life	HR Dept

Table 35. Monitoring Plan for Fire Hazard

Sr.	Parameter	Location	Frequency	Method	Responsibility
1	Strictly prohibit	Within	Daily	Visual	HR Dept

	smoking within factory compound	factory compound		inspection	
2	Clearly define and notify emergency exits	Factory compound	Daily	Inspection	HR Dept
3	Passage ways must always be kept clean and clear	Passage ways	Daily	Visual inspection	HR Dept
4	Regularly check and refill fire extinguishers	Fire extinguisher within the factory compound	Daily	Inspection	HR Dept
5	Exercise fire drill regularly	Fire drill within the factory compound	3 times/yr	Inspection	HR Dept

Table 36. Projected Budget for OSH

Sr.	Management Actions	Budget
1	Regularly check and refill fire extinguishers	1,000,000/3 yrs

11.2 PHYSICAL HAZARD

Primary physical hazard issues related to Yu Chang (Myanmar) Spray Cotton Co. Ltd is: overweight lifting at receiving raw materials and transporting products; hazard for injury from operation machines; Ergonomic injury from prolong standing or sitting.

Table 37. Objective and Legal Requirements for Physical Hazard

1	Objectives	To prevent and reduce occupational hazard by the implementation of a systematic OSH management and monitoring plan
2	Legal Requirements	1. Myanmar Fire Brigade Law Paragraph (14 C, 25) 2. 1951 Factory Act (Chapter 3, Chapter 4)

		3. OSH Law (Chapter 8, Paragraph 34 and 49)
3	Mitigation Measure	1. Using necessary lifting and carrying aid apparatus and machinery
		1. Using necessary lifting and carrying aid apparatus and machinery
		2. Using heat protective hand gloves for melting process and furnace handling
		3. Installing machine guards

Table 38. Management Actions for Physical Hazard

Sr.	Mitigation Measures	Management Actions
1	Using necessary lifting and carrying aid apparatus and machinery	Regular inspection and supervision
2	Using heat protective hand gloves for melting process and furnace handling	Regular inspection and replacement
3	Installing machine guards	Annually inspection and maintenance machine guards

Table 39. Implementation Plan for Physical Hazard

Sr.	Management Action	Frequency	Duration	Responsibility
1	Using necessary lifting and carrying aid apparatus and machinery	Once	Project Life	HR Dept
2	Using heat protective hand gloves for melting process and furnace handling	Monthly	Project life	Maintenance
3	Installing machine guards	Once	Project Life	HR Dept
4	Annually inspection and maintenance machine guards	Annually	Project life	Maintenance

Table 40. Monitoring Plan for Physical Hazard

Sr.	Parameter	Location	Frequency	Method	Responsibility
1	Using necessary lifting and carrying aid apparatus and machinery	Loading/ Unloading area	Daily	Inspection	HR Dept
2	Using heat protective hand gloves for melting process and furnace handling	Production lines	Daily	Inspection	HR Dept
3	Installing machine guards	Production lines	Monthly	Inspection	Maintenance
4	Annually inspection and maintenance machine guards	Production lines	Annually	Inspection	Maintenance

Table 41. Projected Budget for Physical Hazard

Sr.	Management Actions	Budget
1	Using necessary lifting and carrying aid apparatus and machinery	30,000
2	Using heat protective hand gloves for melting process and furnace handling	300,000/yr
3	Installing machine guards	300,000

11.3 SOLID WASTE

Yu Chang (Myanmar) Spray Cotton Co. Ltd is comprised solid wastes mainly of polyester fabric waste and packaging waste. Polyester fabric cotton was reused in processes but the solid waste from Yu Chang (Myanmar) Spray Cotton Co. Ltd is discharged by calling solid waste collector such as government waste collector department. Following table depicts waste generation from the whole production process. Systematic management of these solid wastes is of importance as mismanagement of the waste will lead critical occupational hazard including fire hazard.

Table 42. Objective and Legal Requirements for Solid Waste

1	Objectives	To prevent and reduce environmental impacts from solid waste by providing a systematic management plan
2	Legal Requirements	1. Environmental Conservation Law Paragraph (14, 15) 2. 1951 Factory Act Paragraph (14A)
3	Mitigation Measure	1. Cleaning continuous and regularly Cleaning continuous and regularly
		2. Stacking waste bags systematically
		3. Calling waste collector regularly
		4. Providing adequate dust bins

Table 43. Management Actions for Solid Waste

Sr.	Mitigation Measures	Management Actions
1	Cleaning continuous and regularly	Regular inspection and supervision
2	Stacking waste bags systematically	Regular inspection and supervision
3	Calling waste collector regularly	Regular inspection and supervision
4	Providing adequate dust bins	Providing 20 dust bins

Table 44. Implementation Plan for Solid Wastes

Sr.	Management Action	Frequency	Duration	Responsibility
1	Cleaning continuous and regularly	Daily	Project life	Production Dept
2	Stacking waste bags systematically	Daily	Project life	Production Dept
3	Calling waste collector regularly	Weekly	Project life	Production Dept
4	Providing adequate dust bins	Once	Project life	Plant Manager

Table 45. Monitoring Plan for Solid Wastes

Sr.	Parameter	Location	Frequency	Method	Responsibility
1	Cleaning continuous and regularly	The whole plant	Daily	Inspection	Production Dept
2	Stacking waste bags systematically	Inspection	Daily	Inspection	Production Dept
3	Calling waste collector regularly	Inspection	Weekly	Inspection	Production Dept
4	Providing adequate dust bins	Inspection	Once	Record	Plant Manager

Table 46. Projected Budget for Solid Wastes

Sr.	Management Actions	Budget
1	Providing adequate dust bins	100,000

11.4 NOISE

Most parts of the factory are subjected to noise. High noise areas are working line and compressor. Workers working in these areas are needed to provide with necessary PPE such as ear muffs.

Table 47. Objective and Legal Requirements for Noise and Vibrations

1	Objectives	To prevent and reduce occupational hazard from noise by implementing a systematic management plan
2	Legal Requirements	1. NEQG paragraph (1.3)
3	Mitigation Measure	1. Carrying out regular maintenance works for all the equipment and generator
		2. Installation cover in generator room for noise

Table 48. Management Actions for Noise and Vibrations

Sr.	Mitigation Measures	Management Actions
1	Carrying out regular maintenance works for all the equipment and generator	1. Carrying out annual overall maintenance work
2	Installation cover in generator room for noise	1. Installation cover in generator room

Table 49. Implementation Plan for Noise

Sr.	Management Action	Frequency	Duration	Responsibility
1	Installation cover in generator room	Once	Project life	Engineering Dept
2	Carrying out annual overall maintenance work	Annually	Project life	Engineering Dept

Table 50. Monitoring Plan for Noise and Vibrations

Sr.	Parameter	Location	Frequency	Method	Responsibility
1	Carrying out noise level measurement regularly	locations within plant compounds	Quarterly	Handheld noise level meter	Engineering Dept
2	Carrying out annual overall maintenance work	The whole plant	4 times per year	Inspection	Engineering Dept
3	Checking workplace daily	The whole plant	Daily	Visual Inspection	Engineering Dept

Table 51. Projected Budget for Noise and Vibrations

Sr.	Management Actions	Budget
1	Installing cover in generator room	60,000
2	Carrying out annual overall maintenance work	1,000,000/yr

11.5 MACHINERY HAZARD

Many types of machinery such as cutting and rolling machine, oven machine and air compressor are operating in this factory. Any machine part which can cause injury must be guarded. Machine guards help to eliminate personnel hazards created by points of operation, ingoing nip points, rotating parts and flying chips. All machinery equipment should be maintained in a safe operational condition and be regularly inspected.

Table 52. Objective and Legal Requirements for Machinery Hazard

1	Objectives	To prevent and reduce occupational hazard by the implementation of a systematic OSH management and monitoring plan
2	Legal Requirements	1. Myanmar Fire Brigade Law Paragraph (14 C, 25) 2. 1951 Factory Act (Chapter 3, Chapter 4)
3	Mitigation Measure	Implementation of machinery hazard safety measures

Table 53. Management Actions for Machinery Hazard

Sr.	Mitigation Measures	Management Actions
1	Implementation of machinery hazard safety measures	1.Providing necessary PPE (goggle, hand gloves, ear muffs) 2. Inspection and supervision for wearing necessary PPE for maintaining machine. 3.Regular inspection and cleaning of debris, dusts and oils on machine components 4. Regular inspection of lubricant leakage and refilling as necessary 5. Clearing work place of flammable materials before using machine 6. Installation safety guard on machine 7. Regular inspection and maintaining for belt, gears, sprockets, chains, and other moving parts. 8. Systematically installing machine parts 9. Regular inspection of power cable

		10. Preparing checklist, warning signs or lights of inspection for using machine and displaying at visible location near machine 11. Allow only qualified workers to maintain machine. 12. Install emergency stop devices on machine to enable workers to shut off the equipment within easy reach of workers.in an emergency.

Table 54. Implementation Plan for Machinery Hazard

Sr.	Management Action	Frequency	Duration	Responsibility
1.	Providing necessary PPE (goggle, hand gloves, ear muffs)	When require	Project life	Plant manager, worker
2	Inspection and supervision for wearing necessary PPE for maintaining machine.	Daily	Project life	Plant manager, worker
3	Regular inspection and cleaning of debris, dusts and oils on machine components	Daily	Project life	Plant manager, worker
4	Regular inspection of lubricant leakage and refilling as necessary	Check and refill	Project life	Plant manager, worker
5	Clearing work place of flammable materials before using machine	Daily	Project life	Plant manager, worker
6	Installation safety guard on machine	Once	Project life	Plant manager, worker
7	Regular inspection and maintaining for belt, gears, sprockets, chains, and other moving parts.	Weekly	Project life	Plant manager, worker

8	Systematically installing machine parts	Check and repair	Project life	Plant manager, worker
9	Regular inspection of power cable	Daily	Project life	Plant manager, worker
10	Preparing checklist, warning signs or lights of inspection for using machine and displaying at visible location near machine	Once	Project life	Plant manager, worker
11	Allow only qualified workers to maintain machine.	Annually	Project life	Plant manager, worker
12	Install emergency stop devices on machine to enable workers to shut off the equipment within easy reach of workers in an emergency.	Once/ recheck and repair	Project life	Plant manager, worker

Table 55. Monitoring Plan for Machinery Hazard

Sr.	Parameter	Location	Frequency	Method	Responsibility
1	Providing necessary PPE (goggle, hand gloves, ear muffs)	Factory	When require	Project life	General manager (HR), Plant Manager
2	Inspection and supervision for wearing necessary PPE for maintaining machine.	Factory area	Daily	Project life	Engineering Department
3	Regular inspection	Workplace	Daily	Project life	Engineering

	and cleaning of debris, dusts and oils on machine components				Department
4	Regular inspection of lubricant leakage and refilling as necessary	Workplace	Check and refill	Project life	Engineering Department
5	Clearing work place of flammable materials before using machine	Workplace	Daily	Project life	Engineering Department
6	Installation safety guard on machine	All of machine	Once	Project life	Engineering Department
7	Regular inspection and maintaining for belt, gears, sprockets, chains, and other moving parts.	All of machine	Weekly	Project life	Engineering Department
8	Systematically installing machine parts	All of machine	Check and repair	Project life	Engineering Department
9	Regular inspection of power cable	All of machine	Daily	Project life	Engineering Department
10	Preparing checklist, warning signs or lights of inspection for using machine and displaying at visible location	Factory area	Once	Project life	Engineering Department

	near machine				
11	Allow only qualified workers to maintain machine.	Factory record	Annually	Project life	General Manager (HR), Plant Manager
12	Install emergency stop devices on machine to enable workers to shut off the equipment within easy reach of workers.in an emergency	All of machine	Once/ recheck and repair	Project life	Engineering Department

Table 56. Projected Budget for Machinery Hazard

Sr.	Management Actions	Budget
1	Regular inspection and maintaining for belt, gears, sprockets, chains, and other moving parts.	500,000/yr
2	Install emergency stop devices on machine to enable workers to shut off the equipment within easy reach of workers.in an emergency	30000

11.6 EMISSION OF ODOR AND DUST

Type of dust and odor generated from raw material storing, cutting, spraying resin and packing. Minimal requirement such as wearing necessary PPE (mask and hand glove) and carrying out regular sweeping at the area have to be carried out.

Table 57. Objective and Legal Requirements for dust management

1	Objectives	To provide adequate dust and particulate control system so that occupational health hazard relating to dust is minimal
2	Legal Requirements	1. Environmental Conservation Law Paragraph (14, 15) 2. NEQG Paragraph (1.1)
3	Mitigation	1.Wearing necessary PPE (goggle, gloves)

	Measure	2. Regular inspection and supervision of the usage of the masks for the workers working at odour producing areas 3. Installation of a particle monitoring meter 4. Temporarily stopping the works if PM 2.5 and PM 10 emission reached above 50 µg/m3 in a day 5. Cleaning with dust collector

Table 58. Management Actions for dust emission

Sr.	Mitigation Measures	Management Actions
1	Wearing necessary PPE (goggle, gloves, mask)	1. Providing face mask for workers working at metal melting process
2	Regular inspection and supervision of the usage of the masks for the workers working at odour producing areas	1. Educating workers about workplace safety practices and use of PPE 2. Regular inspection and supervision of face mask usage
3	Installation of a particle monitoring meter	1. Installation of a particle monitoring meter
4	Temporarily stopping the works if PM 2.5 and PM 10 emission reached above 50 µg/m3 in a day	1. Setting alarm level of meter to 50 µg/m^3 2. Temporarily stopping the resin laying works if dust emission reached above 50 µg/m^3 3. Reporting to plant manager
5.	Cleaning with dust collector	1. Providing dust collector

Table 59. Implementation plan for dust management

Sr.	Management Action	Frequency	Duration	Responsibility
1	Providing face mask for workers working at metal melting process	Monthly	Project life	Plant manager
2	Educating workers about workplace safety practices and use of PPE	Annually	Project life	Plant Manager,

3	Regular inspection and supervision of face mask usage	Daily	Project life	Plant manager
4	Installation of a particle monitoring meter	once	Project life	Plant manager
5	Temporarily stopping the resin laying works if dust emission reached above 50 ppm	If require	Project life	Plant manager
6	Providing dust collector	Once	Project life	Plant manager
7	Regular inspection and supervision of moistening dust heap area	Weekly	Project life	Plant manager

Table 60. Monitoring plan for emission of dust

Sr.	Parameter	Location	Frequency	Responsibility
1	$PM_{2.5}$	Within plant compound	Bi-annually	Plant Manager
2	Regular inspection	Within plant compound	Daily	Assistance Plant manager

Table 61. Projected budget for emission to dust

Sr.	Management Actions	Budget
1	Providing face mask and helmet adequately for workers working at material handling areas	120,000/yr
2	Providing dust collector	200,000

11.7 CHEMICAL HAZARD

Exposure to chemicals typically involves chemical-handling activities related to raw material handling and all production process. Chemicals used in process are slightly harmful for worker. Mitigation measures and management actions are intended to prevent unnecessary hazards and reduce potential risks.

Table 62. Objective and Legal Requirements for Chemical Hazard

1	Objectives	To prevent and reduce harmful effect of chemical and related materials on workers and environment
2	Legal Requirements	1. Environmental Conservation Law Paragraph (14,15) 2. Prevention from the Hazard of Chemicals and Related Materials Law Paragraph (15 B, 16 B, 16 C, 16 D, 16 H, 16 K)
3	Mitigation Measure	1. Implementation of chemical safety measures

Table 63. Management Actions for Chemical Hazard

Sr.	Mitigation Measures	Management Actions
1	Implementation of chemical safety measures	1. Taking temporary break upon the sign of nausea
		2. Educating workers about emergency response plan for chemical hazard
		3. Regular inspection and supervision for preventing chemicals from flowing into drainage
		4. Providing washing places in the vicinity of workplace
		5.Regular inspection and supervision for prohibiting eating, drinking and smoking at workplace
		6. Educating workers with the information on MSDS

Table 64. Implementation plan for Chemical Hazard

Sr.	Management Action	Frequency	Duration	Responsibility
1	Taking temporary break upon the sign of nausea	As require	Project Life	Worker

2	Educating workers about emergency response plan for chemical hazard	Once	Project Life	Plant Manager,
3	Regular inspection and supervision for preventing chemicals from flowing into drainage	Daily	Project Life	Assistance Plant manager
4	Providing washing places in the vicinity of workplace	Once	Project Life	Plant Manager
5	Regular inspection and supervision for prohibiting eating, drinking and smoking at workplace	Daily	Project Life	Assistance Plant manager
6	Educating workers with the information on MSDS	Once	Project Life	Plant Manager

Table 65. Monitoring plan for Chemical Hazard

Sr.	Parameter	Location	Frequency	Method	Responsibility
2	Educating workers about emergency response plan for chemical hazard	Factory record	Bi-annually	Inspection	General Manager,
3	Regular inspection and supervision for preventing chemicals from flowing into drainage	Factory record	Weekly	Inspection	Plant manager
4	Providing washing places in the vicinity of workplace	Factory	Annually	Inspection	General Manager
5	Regular inspection and supervision for prohibiting eating, drinking and smoking at workplace	Factory	Weekly	Inspection	Plant manager

Table 66. Projected budget for Chemical Hazard

Sr.	Management Actions	Budget
1	Providing washing places in the vicinity of workplace	40,000/yr

12 PROJECTED BUDGETS

Projected budget for implementation of EMP management actions and monitoring requirements could be summarized from detailed particulars described in previous section of the report.

Table 67. Project Budgets for Implementation and Monitoring of EMP

Sr.	Management Actions	Budget
1	Regularly check and refill fire extinguishers	300,000 /yrs
2	Using necessary lifting and carrying aid apparatus and machinery	30,000
3	Using heat protective hand gloves for melting process and furnace handling	300,000/yr
4	Installing machine guards	300,000
5	Providing adequate dust bins	100,000
6	Installing cover in generator room	60,000
7	Carrying out annual overall maintenance work	1,000,000/yr
8	Regular inspection and maintaining for belt, gears, sprockets, chains, and other moving parts.	500,000/yr
9	Install emergency stop devices on machine to enable workers to shut off the equipment within easy reach of workers.in an emergency	30,000
10	Providing face mask and helmet adequately for workers working at material handling areas	120,000/yr
11	Providing dust collector	200,000
12	Providing washing places in the vicinity of workplace	40,000/yr
Total One Time Cost		540,000
Total Recurring Cost		3,340,000

Yu Chang (Myanmar) Spray Cotton Co. Ltd will allocate (540,000) kyat total of one-time cost and 3,340,000 kyat of annual recurring cost for successful implementation and monitoring of the EMP. If the estimated budget isn't enough, Yu Chang (Myanmar) Spray Cotton Co. Ltd will be used by adding the enough budgets as necessary.

13 ENVIRONMENTAL MANAGEMENT TEAM

An Environmental Management Team will be established for successful implementation of the environmental management plan. Yu Chang (Myanmar) Spray Cotton Co. Ltd is responsible for complete implementation of the environmental management and monitoring plan and will carry out environmental monitoring programme which is part of the environmental management and monitoring plan. The objectives of the Environmental Management Team are:

(a) To assure systematic implementation of environmental management and monitoring plan throughout project life, and

(b) To monitor and review effectiveness of environmental management and monitoring plan regularly

Table 68. Environmental Management Team

Sr.	Representative	Number
1	Director	1
2	General Manager	1
3	Factory Manager	1
4	HR Manager	1
5	Production Manager	1
6	Supervisor	1

13.1 ROLES AND RESPONSIBILITIES

13.1.1 General Manager

General Manager is responsible for overall achievement of environmental management objectives. He has to report to Managing Director for regular progress, compliance, non-compliance and corrective actions for the course of implementation of EMP. He has to lead the regular environmental management and monitoring plan review process

together with the environmental management team so that effectiveness of environmental management and monitoring plan is assured.

13.1.2 Heads of Departments

Heads of Departments (HODs) are responsible for carrying out day to day activities of the environmental management and monitoring plan. They have to direct employees or carrying out inspection works of the implementation of environmental management and monitoring plan and report back to Managing Director and General Manager for progress, compliance, non-compliance and corrective actions for the course of implementation of environmental management and monitoring plan.

14 TRAINING, AWARENESS AND COMPETENCE

This plan describes the provisions of training to ensure that any people working for or on behalf of Yu Chang (Myanmar) Spray Cotton Co. Ltd involved in the activities covered by the scope of the environmental management and monitoring plan are properly trained to carry out their assigned duties in a manner that will not cause deviation from company environmental policy.

This procedure applies to environmental management and monitoring plan related training for staff and any persons working for or on behalf of Yu Chang (Myanmar) Spray Cotton Co. Ltd involved in the activities covered by the scope of the environmental management and monitoring plan Yu Chang (Myanmar) Spray Cotton Co. Ltd will ensure that all people performing tasks for or on behalf of the organization have had an appropriate assessment for their potential to cause a significant environmental impact and the associated competence required.

The HODs shall ensure that people working for or on behalf of the company within the scope of environmental management and monitoring plan are competent on the basis of appropriate education, training or experience. The General Manager shall identify training needs for people working for or on behalf of the company to ensure individual competence to implement the environmental management and monitoring plan effectively.

Table 69. Training Requirement

Sr.	Training Topics	Trainee	Duration
1	OSH Training	Supervisors, Operators, Workers and Security	40 hours
2	environmental management and monitoring plan Training	Environmental management team	40 hours
3	Emergency Response Training	All employee	16 hours
4	First Aid Training	All employee	20 hours
5	Fire Fighting Training	All employee	40 hours

15 COMMUNICATION

This plan ensures a consistent and efficient approach to internal communication and external complaints relating to the environment. The procedure applies to all documents established under the EMP of Yu Chang (Myanmar) Spray Cotton Co. Ltd. The documents under the environmental management and monitoring plan include but are not limited to:

- EMP Report
- Mitigation Measures and Management Actions
- environmental management and monitoring plan
- Registers of Legal and Other Requirements
- External documents including legislation, professional guides and code of practices, etc.

15.1 CSR ACTIVITIES OF YU CHANG (MYANMAR) SPRAY COTTON CO. LTD GARMENT FACTORY

CSR activities of Yu Chang (Myanmar) Spray Cotton Co. Ltd are as shown in appendix.

15.2 RESPONSIBILITY

- The General Manager is responsible for dealing with complaints.
- The communication from cooperate affairs is responsible for ensuring that all communications relating to the environment are processed correctly.
- All staffs are responsible for putting for suggestions on environmental matters.

15.2.1 External Communications

Communications to be handled according to this procedure include correspondence, conservations and meeting with relevant interested parties.

The person receiving the communication shall be noted the time and date, relevant address/telephone number and details of communication. Details shall be passed to the General Manager who will determine the response and whether the corrective action is required upon consultation with HR Department. If the communication is significant, the General Manager shall inform the supply chain director as soon as possible.

General Manager shall be responsible for maintaining records, responses and corrective action in a separate file designated for that purpose. In order to have more understanding the environment management practices by the Yu Chang (Myanmar) Spray Cotton Co. Ltd team and to have more transparent, local authorities and Communities leaders shall be invited to the process once in a year to share update environment management procedures.

15.2.2 Internal Communications

The primary means of communication is through team briefings, supported as appropriate by use of notice boards and memos. Suggestions for environmental improvements are made through the company suggestion scheme.

15.3 EMERGENCY PREPAREDNESS AND RESPONSE PLAN

15.3.1 Emergency of Fire Hazard

15.3.1.1 Sources of Fire Hazard

Fire is a rapid chemical in which oxygen combines with another substance in the presence of a source of heat energy. Heat, fuel, and oxygen have to be present in sufficient quantities before a fire can start. If one of these elements is removed, the fire will go out. Heat acts as the source of ignition and anything that gives off heat can start a fire. The source of ignition is not necessarily a flame, a spark or fires itself, but the heat they give off. Heat can be generated by welding torches, soldering irons, hot plates, ovens, electric fires, light bulbs, electric irons, and smoking. Fuel can be anything combustible, such as paper, wood, petrol vapor, natural gas, and propane (bottled gas).

The oxygen essential for combustion is usually supplied from the surrounding air. Fires are classified into five categories according to the fuel type. The classification serves as a basis for identifying the means of extinguishing different types of fire:

- Class A

These are fires involving solid materials, normally of an organic nature, such as paper, wood, coal and natural fibers. These fires usually produce burning embers.

- Class B

These are fires involving flammable liquids or liquefied solids, such as petrol, oil, greases, fats and paints.

- Class C

These are fires involving gases or liquefied gases, such as methane, propane, and mains gas.

- Class D

These are fires where the fuel is a metal such as aluminum, sodium, potassium or magnesium.

- Class E

Electrical fires are fires involving potentially energized electrical equipment. This sort of fire may be caused by short-circuiting machinery or overloaded electrical cables.

- Class F

These are fires fueled by cooking fats, as in the case of deep fat frying.

15.3.1.2 Pre-Conditions

1. Mark out all location susceptible to fire outbreak
2. The work place is equipped appropriate fire-fighting equipment, fire detectors, and alarms and that any non-automatic fire-fighting equipment is easily accessible, simple to use and indicated by signs.
3. Appropriate measures are taken for fire-fighting and training of workers to implement those measures, and the arranging of contacts with external emergency services.
4. The emergency routes are kept clear and comply with any rules or regulations relating to routes, doors and signs.
5. There is a suitable system of maintenance for fire precautions in relation to workplace procedures in general and to specific equipment and devices, which must be kept in good working order and repair.

6. Hot works must be done in a standard workshop.
7. Store flammable liquids/gases properly and under the supervision of a competent person.
8. Standardize waste materials and residues management so that they do not contribute to a fire emergency.

15.3.1.3 Preparation for Emergencies

15.3.1.4 Training

All people at the production unit shall be trained on emergency situations in accordance with the standard of Myanmar fire bridge department.

15.3.1.5 Fire Drills

Fire drills are important requirement that serve to prepare and educate the staff in the event of a fire. Staff is expected to participate in fire drills and respond according to department expectations and institutional policy. Fire drills are critiqued and opportunities for improvement are identified and addressed. In addition, equipment and system problems and failures are reported immediately for correction.

Fire drills include the following:

- Simulated and actual removal of patients, staff and visitors from affected area
- Fire alarm activation
- Reporting event by calling 911
- Fire and smoke containment observation
- Review of evacuation procedures
- Fire suppression procedures

15.3.1.6 Pre-Drill Assessment

The drill coordinator should conduct a pre-drill assessment of the evacuation routes and assembly points. This assessment will verify condition of egress components and ensure that occupants may use these facilities in a safe manner. Ensure exit passageways are clear, free of obstructions and that exit doors work properly.

15.3.1.7 Evacuation

Evacuation shall be started by an acoustic signal. This signal can be activated by hand and also automatically by fire detection.

15.3.1.8 Responsibilities of Fire Emergency Coordinator and Fire Emergency Teams

The Emergency Coordinators are Responsible for: Review of the evacuation plan before a drill and identifying any modifications necessary as the result of changes in operations, facility, staff or occupants.

Trigger the evacuation signal (fire alarm) system and evaluate personnel response in terms of the following:

- Actions taken to shutdown processes and machineries.
- Using the prescribed route by the emergency procedure during evacuation.
- The ability of the occupant to provide assistance to visitors or individuals who are experiencing difficulty.
- Be familiar with the building evacuation plan and the basic emergency procedures.
- Know where the unit's first aid kit is located.
- The occupants' judgment in taking evasive action if the means of egress that is selected is determined to be unsafe.
- The occupant ability to report to the assembly area monitors using the prescribed emergency, safe exit (lifts must not be used in the event of a fire emergency) at the assigned assembly point.
- The Emergency Teams are Responsible for: Assessment of the means of exit
- Program the police services emergency number on the cell phone and have the phone readily available.

15.3.1.9 Emergency Equipment

The Followings equipment/PPE are mandatory when any hot work has to be performed:

- Hands-free welding mask;
- Steel toe safety boot;
- Fire Extinguisher;
- Fire blanket;

- Fire Hydrant system;
- Willkie Talkie
- Fire detection system.

15.3.1.10 First Aid

First aid is a part of the total health care for workers. Its application will depend to a large extent on persons present at the time of an accident, whether co-workers or formally trained medical personnel. Any comprehensive occupational safety and health programme should include first aid, which contributes to minimizing the consequences of accidents and is therefore one of the components of tertiary prevention.

15.3.1.11 First Aid Treatment for Burns

Generally, a burn is considered as severe if it involves:

- More than 5% of the casualty's Total Body Surface Area (TBSA) i.e. a surface area more than five times the size of his palm
- The casualty's mouth, throat, eyes, ears and/or genitals

A. Minor burns

For mild (1st degree) burns involving less than 5% of the casualty's body surface, the following procedure will suffice:

- Cool the burn with running cool (not cold) water for at least 5 minutes. Do not overcool. If the person starts to shiver, stop the cooling process.
- A cool compress or clean wet cloth placed over the burn area helps relieve pain and swelling and compress in 5 to 15 minutes intervals. Try not to use excessively cold compresses because they may irritate the burn more.
- Remove rings or other tight items from the burned area. Try to do this quickly and gently, before the area swells.
- Don't break small blisters (no bigger than your little fingernail). If blisters break, gently clean the area with mild soap and water, apply an antibiotic ointment, and cover it with a nonstick gauze bandage.
- Apply moisturizer or Aloe Vera lotion or gel, which may provide relief in some cases.
- Honey may help heal a minor burn when applied topically. Honey is an anti-inflammatory and naturally anti-bacterial and anti-fungal.

- If needed, take an over-the-counter pain reliever, such as ibuprofen (Advil, Motrin IB, others), naproxen sodium (Aleve) or acetaminophen (Tylenol, others).
- Consider a tetanus shot. Make sure that your tetanus booster is up to date.

B. Severe burns

For 2nd degree burns i.e. burns involving more than 5% of the casualty's body surface: Follow this procedure stated below:

- Cool the affected part under cold running water or immerse it in cold water for at least 10 minutes; for chemical burns, wash off the chemicals
- Constricting accessories such as bracelets, rings, watches or clothing are to be gently removed from the injured area before it starts to swell
- Cover the burned/scalded area with sterile dressing
- Call the Medical Emergency Number for an ambulance

The burn is often associated with other traumata such as fractures, wounds, electrocution, etc. which may complicate the medical condition of the victim, if not treated in good time. Take immediately to nearby health facility burn victims with the following signs:

- First degree burns with sizeable area;
- 2nd and 3rd degree burns;
- If the victim is drowsy, restless and has breathing problem;
- If the victim has burns on his face, eye, extremities, joints and around genital organs;
- Immediate care and first aid treatment according to "4C Procedures" stated above may be required before adequate medical treatment is administered. The Emergency Coordinator must always ensure that trained personnel and adequate First Aid supplies are readily available.

15.3.1.12 Emergency Treatment of Burned Body Parts

In the case of a fire victim with burned body parts, to prevent burn lesions from deteriorating, it is essential to do the following:

a. Not to burst any blisters, or remove the epidermis. Exposure of the dermis only increases the loss of body fluids and heat, besides increasing pain and the risk of infection;
b. To cool the burned parts with water or wet cloth. This stops the action of the thermal agent and considerably reduces pain. Very extensive burns

must be treated either by immersing the part in water at room temperature or by covering the part with damp cloth. The cooling operation should generally not exceed 20 minutes. It should be guided by the patient's general condition and the degree of pain relief achieved. Cooling a patient must be stopped if he begins to shiver, as this can lead to hypothermia. Children and elderly persons and those in a state of shock must be treated with even greater care, with less energetic and shorter cooling. Non-extensive burns can be soothed with ice-packs or by placing the part under a running tap;

c. Flush chemical burns with water until all burning pain has stopped. Remove all contaminated clothes.
d. To use clean plastic bags, if available, to wrap burned hands and feet, or to spread out like adhesive flaps over burns on the thorax, limbs, etc;
e. To wrap burned parts or the entire body in a freshly laundered dry sheet, towel or cotton or linen cloth, and not to apply dressings as these would cause constriction as the burn oedema (a condition characterized by an excess of watery fluid collecting in the cavities or tissues of the body) increases;

15.3.2 Emergency of Electric Shock

15.3.2.1 Sources of Electric Hazard

Electricity flows through conductors. Conductors include metals, water, earth and the human body. Electric shock occurs when electricity flows through the human body by means of contact. Electric currents may also heat external and internal tissue sufficiently to induce structural damage through electrical burns. Electrical burns affect human health through actions on both excitable (e.g. cardiac, nervous) and non-excitable (e.g. Skin, blood vessels) tissues. Depending on the resistance encountered, the nature of the source, the strength of the current and the contact time, the heat generated (Joule effect) may produce serious external and internal burn injuries and even death. Deep-tissue burns may occur anywhere along the path a current travel through the body. Evident surface burns may only comprise a small portion of the overall burn injury, and an injury’s full extent may not be immediately apparent. Harm can be caused to any person when they are exposed to ‘live parts’ that are either touched directly or indirectly by means of some conducting object or material. Voltages over 50 volts AC or 120 volts DC are considered hazardous. Maintenance

Personnel, machine operators and production personnel are quite prone to electrocution if proper trainings and strict preventive measures against electrical hazard are not established. Electrical hazards may be constituted by any or combination of the following:

- Improper grounding
- Exposed electrical parts
- Inadequate wiring
- Overhead power lines
- Damaged insulation
- Overloaded circuits
- Wet conditions
- Damaged tools and equipment

The severity of injury from electrical shock depends on the amount of electrical current and the length of time the current passes through the body. Even if the current is as low as 0.5mA and a person comes in contact for just 2 seconds, this is enough to cause death.

The lower the resistance, the greater the current flow will be. Dry skin may have a resistance of 100,000 ohms or more. Wet skin may have a resistance of only 1,000 ohms. Wet working conditions or broken skin will drastically reduce resistance. The low resistance of wet skin allows current to pass into the body more easily and give a greater shock.

15.3.2.2 Pre-Conditions

1. All high voltage equipment shall be on an inventory list with the following information:
    - Identification (tag)
    - Voltage Rating
    - Caution sign
2. Implement Preventive Organizational Measures which must incorporate the following:
    - Provisions according to basic protection requirements such as insulations
    - Electrical fault protection requirements which normally involves an automatic disconnection of supply (ADS) using overcurrent protective devices.
    - All high voltage equipment must be installed with barriers and enclosures such that they are completely inaccessible to unauthorized persons. The barriers and enclosures must maintain adequate clearances from the live parts.
    - Safe Work Permit for jobs requiring high voltage
    - Identification and provision of required PPEs including electrical rated hand gloves
    - Specific Training to Operators and Maintenance Crew on Machine Safety procedure

15.3.2.3 Preparation for Emergencies

15.3.2.3.1 Training

An emergency expert or rescuer may be qualified for some kinds of emergencies and unqualified for others. Having the knowledge and skill to install and/or maintain electrical systems and equipment does not guarantee that the person is fully familiar with the hazards involved. Special training, and ability to use special equipment, is necessary for those emergency service personnel who carry out emergency and rescue tasks close to live electrical equipment. Training is key in determining who is considered a qualified emergency responder. A qualified electrical emergency responder is one who has been specifically trained on electrical hazards and emergency response and is qualified to carry out a rescue or emergency response. All people at the production unit shall be trained on emergency situations.

15.3.2.3.2 Electrical Injury Simulations

Electrical injury simulations must be done at least once a year to build experience; enable psychological preparation for emergency and to test; evaluate and improve overall preparedness with regards to the Emergency Response. The Emergency response team for electrical related emergencies must consist of trained personnel equipped to carry out a planned response plan on what should be done in the event of an electrical emergency.

15.3.2.3.3 Direct Contact with Electricity

The primary electrical injury that accompanies an electric shock as a result of contact with electricity is burns. It takes about 30 mA of current to cause respiratory paralysis. Currents greater than 75mA cause ventricular fibrillation (very rapid, ineffective heartbeat). This condition will cause death within a few minutes unless a special device called a defibrillator is used to save the victim. Heart paralysis occurs at 4 amps, which means the heart does not pump at all. Tissue is burned with currents greater than 5Amp.

15.3.2.3.4 Indirect Contact

The most destructive indirect injury occurs when a victim becomes part of an electrical arc. Arc-blasts occur when powerful, high-amperage currents arc through the air. An electrical arc is a current spark formed between two objects of differing potential that are

not in contact with each other, usually a highly charged source and a ground. Because the temperature of an electrical arc is approximately 2500° C, it causes very deep thermal burns at the point where it contacts the skin. In arcing circumstances, burns may be caused by the heat of the arc itself, electro thermal heating due to current flow, or by flames that result from the ignition of clothing. Protection against indirect contact is based on combining measures affecting both the characteristics of the equipment and the building of the installation. High sensitivity residual current devices are the most effective way of protecting against the risk of indirect contact.

15.3.2.3.5 Emergency Equipment

The Followings equipment/PPE are mandatory when any work with electrical hazards has to be performed:

- Electrical safety insulating latex hand gloves
- Electrical safety composite gloves
- Fire Extinguisher
- Safety boots (“EH” rated)

Protective devices such as overcurrent circuit breakers, thermal overload relays, and ground fault detectors must be installed as a preventive measure against electric hazards.

15.3.2.3.6 Rescue Procedure

Electrical shocks always need emergency medical attention even if the person seems to be fine afterWard. The emergency responder is expected to do the following:

If low voltage electricity is involved;

- Separate the Person from the power or current's source
- Turn off power via circuit breaker, fuse box, or outside switch i.e. complete isolation
- If you can't turn off power, stand on something dry and non-conductive, such as dry newspapers, telephone book, or wooden board.
- Try to separate the person from current using non-conductive object such as wooden or plastic broom handle, chair, or rubber doormat.

If high voltage line or power line is involved:

High voltage electricity of 500V and above has the ability to ‘jump’ or ‘arc’ up to distances of 18 meters or over. If faced with a casualty resulting from high voltage

electricity, the following procedures should be followed by a trained electrical emergency rescuer

1. Do not approach! Stay at least 25 meters away from the casualty until the power has been switched off by an official agency. Do not try to separate the person from current if you feel a tingling sensation in your legs and lower body
2. Insulate yourself from the ground with books / newspapers / rubber matting
3. Use an object of low conductivity i.e. a wooden broom or rolled up newspaper to push away the power source. If a power line falls on a car, instruct the passengers to stay inside unless explosion or fire threatens.
4. Once an electrical emergency rescuer has ascertained that the victim is no longer in contact with electrical conductors, the following checks may be carried out:
5. Quickly access the level of response of the victim. A rapid assessment will allow effective treatment to be administered and will also allow for accurate information to be passed on to the ambulance service. Access the level of response of the victim by:

Check whether the casualty is conscious

- Ask “hello, can you hear me” and call the name if you know it.
- Ask in both the casualty’s ears to open their eyes.
- Pinch an ear lobe or gently tap the shoulders.
- Shout for HELP!
- DO NOT move the casualty unless the environment or situation is dangerous.

15.3.2.3.7 First Aid Treatment

For an unresponsive casualty open the airway

- Look in the mouth to ensure there are no obvious obstructions.
- Open the airway by lifting the chin and tilting the head back.
- This will free the tongue from the back of the throat
- If neck/spinal injury is suspected, put one hand on the stomach to feel if it rises and falls. This indicates normal breathing.

Assess for breathing by doing the following:

- LOOK for the rise and fall the chest.
- LISTEN for sounds of breathing.
- FEEL for air on your cheek.
- Carry this out for up to 10 seconds.

Condition 1: If the victim is breathing normally;

If breathing is present do the following:

- Check for any other obvious injuries.
- Remove sharp objects from pockets.
- Turn the casualty into the recovery position.
- Place the nearest arm at a right angle to the body.
- Draw the furthest arm across the chest and place the back of the hand across the cheek.
- Keep this here whilst you raise the furthest leg by grasping the top of the knee.
- Gently pull on the knee so that the casualty pivots over onto their side facing you.
- The casualty should be fully over and stable.
- Re-check the airway, breathing and circulation.
- Draw up the leg at a 90-degree angle
- Check for continued breathing.
- Call the Emergency Medical Services

Condition 2: Victim is not breathing;

If the casualty is not breathing normally, commence full Cardio-Pulmonary Resuscitation (CPR). Call for medical emergency services while you commence CPR (Cardio-Pulmonary Resuscitation). To commence CPR for an unresponsive casualty;

- Ensure the casualty is on a firm, flat surface
- Place your hands one on top of the other in the center of the casualty's chest
- Compress the chest (up to a maximum depth of approximately 4-5cm) 30 times at a rate of 100 compressions per minute. The compressions and releases should take an equal amount of time
- After 30 compressions, open the airway again using head tilt/chin lift
- Seal the nostrils with your thumb and forefinger.
- Blow steadily into the mouth until you see the chest rise, take about a second to make the chest rise.

It is advisable to have resuscitation equipment at this stage such as a face shield.

- Remove your mouth to the side and let chest fall. Inhale some fresh air, when breathing for the casualty
- Repeat so you have given 2 effective rescue breaths in total

- If chest does not rise after the second breath, go back to 30 compressions then try again with 2 breaths.
- Return your hands to the correct position on the chest and give a further 30 chest compressions.

Continue with CPR until:

1. The casualty shows signs of recovery
2. Emergency services arrive
3. You become exhausted and unable to continue
4. The situation changes and you are now in immediate danger.

15.3.2.3.8 Burns

Exposure to electricity can cause burns to the skin and, in severe cases, internal organs. In such cases the electricity may, for example, enter via a hand and leave via the feet causing ‘entry’ and ‘exit’ burns.

A. Conscious casualties

   Cool burns for a minimum of 10 minutes under cold water.

B. Unconscious casualties

   Cool the burn with wet dressings after placing them in the recovery position.

- Burst any blisters
- Apply adhesive dressings
- Remove damaged skin
- Apply ointments/creams
- Cover with ‘fluffy’ dressings
- Affix dressing too tightly
- Apply butter/fats/margarine
- Remove damaged clothing
- Apply ice

15.3.3 Emergency of Chemical hazard

Many hazardous chemicals such as resin glue etc. are used in our production processes for stitching. A chemical emergency occurs when these hazardous chemicals come in contact with the human skin or when certain amount is inhaled. Most times, industrial

chemical accident is never intentional. For example, a chemical burn may result from rubbing the eyes after handling chemicals.

1. Create an inventory of all chemicals used in the brewery per department and list out their storage locations. The inventory must include categories
2. Procedures for chemical substance acceptance must be documented and followed
3. Conditions for safe storage, including any incompatibilities and specific storage requirements of the chemicals must be reviewed at least yearly or as contained in the MSDS according
4. All containers must be labeled with the following information:
   - Name of the chemical
   - Concentration (strength) of the chemical
   - Information about hazards associated with the chemical (For example, skin irritant and emergency information in case chemical gets in eyes) must be provided.
   - The manufacturer's name.
   - The date of manufacture (chemicals can degrade over time)
5. Safe handling instructions and minimum PPE required for handling of hazardous chemicals must be provided
6. Access control must be implemented to restrict entry of unauthorized personnel into areas containing hazardous chemicals
7. The Material Safety Data Sheet of all chemicals must contain at least the physical and chemical properties of the chemical;
   - Appearance such as the physical state, color, etc.;
   - Upper/lower flammability or explosive limits;
   - Odor;
   - Vapor pressure;
   - Odor threshold;
   - Vapor density;
   - pH;
   - Relative density;
   - Melting point/freezing point;
   - Solubility;
   - Initial boiling point and boiling range;

• Flash point;
• Evaporation rate;
• Flammability (solid, gas);
• Partition coefficient: n-octanol/water;
• Auto-ignition temperature;
• Decomposition temperature; and
• Viscosity.

For highly corrosive chemicals the description of the delayed, immediate, or chronic effects from short- and long-term exposure must be available to all as contained in the MSDS.

15.3.3.1 PPE Requirement for Chemical Handling

- The following PPE is mandatory to be used when handling chemicals
- Safety goggles
- Safety shoes/ boots
- Protective suit (disposable coverall or jacket and pants).
- Clothing that protects the torso against chemicals, fires and other hazards
- Chemical resistant hand gloves
- Face Shield

  Additional Safety Measures
- Safety showers and eyewashes shall be installed in the direct vicinity (i.e. 10 seconds or 30 m) of areas where operators handle hazardous chemicals
- Safety showers shall be accessible without any obstruction

15.4 NATURAL DISASTER PREPAREDNESS

Practical and comprehensive action plans should be prepared for the following situations and types of activities to ensure effective implementation in times of emergency: Mitigating natural disaster risks includes measures to prevent loss of life and property during natural disasters (such as the construction of modulating lakes and reservoirs to prevent disasters caused by heavy rainfall and flooding in rivers, construction of sufficient fire breaks to prevent forest fires from spreading into urban areas) as well as precautionary and mitigating measures (such as planting trees as wind breakers and breakwaters, planting rows of trees and groves to reduce damage, using fire-proof materials as much as possible in

construction to reduce fire hazards, and using earthquake resistant designs to reduce damage caused by earthquakes). In planning mitigating measures, the type of disasters that can affect the disaster-prone areas, the scale (large or small) and the population density (densely populated or sparsely populated) should first be studied and the disaster risk reduction measures prioritized according to the potential damage identified.

Natural disaster preparedness should include planning based on the characteristics of natural disasters, preparedness to overcome them and where it is not possible to overcome them, making preparations for evacuation and shelter. The following steps are generally involved:

1. Early Warning systems. Setting up systems for horizontal and vertical communications.
2. Providing management, and conducting rehearsals and drills for the Interdepartmental Relief Team to enable it to provide assistance during natural disasters from the nearest location in the field.
3. Providing training from the grassroots level organizations to the Township/Division/State to ensure preparedness for emergency activities during natural disasters; brainstorming possible solutions for different scenarios during training.
4. Including natural disaster management and preparedness activities for the individuals, groups, households, Wards or neighborhoods in the school curriculum, newspaper/journals in order to raise awareness for everyone and issuing further warnings especially in disaster-prone times of the year.
5. Building safe shelters, artificial mounds and high embankments for use in times of emergency, and making evacuation plans and conducting drills.
6. Stockpiling food, water, clothing, supplies, construction materials, shelter and ready-made tents, tools, etc. that will be necessary during emergencies or arranging access to them and designating transportation routes.
7. Forming emergency supervisory teams and conducting rehearsals.
8. Identifying vulnerable areas for each type of natural disasters and conducting awareness-raising activities, identifying and communicating do's and don'ts and precautionary measures that should be taken for each type of natural disasters.
9. Preparing and conducting drills for measures to be taken during disasters and in the post-disaster period. Activities to be conducted during disasters include

emergency relief, preliminary care and protection, emergency medical treatment, and evacuation to safe locations. Activities to be conducted in the post disaster period include provision of health care, water, food, clothing, and shelter.

10. As planning is required for these activities, projects should be in place for the provision of education and training to the grassroots level.

15.4.1 Create a Disaster Response Plan

Assemble a disaster preparedness team with a representative from each department to help:

- Identify vulnerabilities in their respective departments and mitigate the risks
- Create evacuation plans.
- Organize contact lists.
- Designate a meeting place outside of the building.
- Relay information about the natural disaster preparedness plan to employees and the public
- Take charge during an emergency
- Prepare and protect the property.
- Assist with the development of evacuation procedures
- Assess document losses.
- Aid with the recovery
- Test the preparedness, response, and recovery plans

15.4.2 Implement Communication Plans

Employees in your business need to know the order of operations to follow when there is a natural disaster. It is important to plan quarterly meetings to inform employees of the natural disaster preparedness, response, and recovery plans, which will ensure streamlined communications. Let the workers know the company's expectations, their individual or departmental responsibilities during the disaster, and plan drills so employees can become familiar with the protocols.

In the disaster plan, outline how the business will communicate to all peoples directly or indirectly affected by the natural disaster. Phone trees, email, and social media are all popular

methods to inform emergency workers, insurance companies, property damage restoration companies, employees, customers, the media, and other stakeholders.

15.4.3 Backup Documents and Data

Losing essential documents, whether they're physical or electronic, can be catastrophic for a business. Prevent such losses by:

- Making copies of critical documents and storing the originals in a secure offsite location.
- Scanning and saving important documents, like client files. Save the electronic files on an external drive that you keep offsite or use a cloud-based solution.
- Having employees regularly scan important paperwork as part of a new policy.
- Making copies of the licensed software and keeping the originals offsite with their licensing information.
- Backing up data daily.

15.4.4 Protect the Power

Many natural disasters cause power outages that shut down operations for prolonged periods. Mitigate this risk by investing in a generator or an uninterruptible power supply (UPS) system, as well as surge protectors. Emergency power sources can help keep your business operational long enough to safely shut down your network, prevent damage to computers and other electronics, and evacuate employees safely.

15.4.5 Plan to Recover

A plan for business continuity is just as important as disaster preparedness and response plans. In a business continuity plan, list:

- Important phone numbers.
- Insurance-related information.
- How to determine if the property is safe to enter.
- Contact information for the property damage restoration company.
- When and how to document the damage.
- When and how to salvage items.
- The locations of essential documents and electronic files, and how to retrieve them.

- The place where the business will conduct critical activities if the building suffers damage.

15.4.6 Review Your Commercial Insurance Coverage

Make an appointment with your insurance agent to learn what your commercial policy covers, the amount of coverage offered, and the business' deductibles. Make sure you have coverage for incidents like water damage, earthquake damage, and business interruptions, as those may require a policy rider. Review the information regarding the property, its value, the number of employees on the payroll, your fleet, and other assets to make sure you have sufficient coverage.

One of your biggest allies when it comes to natural disaster preparedness is property damage restoration services like those provided by Polygon. We are happy to help your business create a comprehensive preparedness, response, and recovery plan so you can resume normal operations as soon as possible after an incident. Call us today to learn more about our services and to register for our Code Blue Preparedness program free of charge.

15.5 FACTORY DECOMMISSIONING MANAGEMENT PLAN

15.5.1 Production Area Decommissioning Management Plan

The DMP for production area will consist of the following actions

- All products will be sent for suitable re-use, recovery, treatment or disposal.
- Shutting off unnecessary services to the building. Heating and ventilation capability would be maintained.
- The instrumentation will be disconnected and rendered safe.
- Cleaning and decontamination of all floor drains.
- All remaining specialized equipment will be sent for suitable re-use or sold to an interested party. Obsolete equipment will be recycled where possible or otherwise disposed of.

15.5.2 Utilities Area Decommissioning Management Plan

The DMP for the utilities area would consist of shutting down the following systems

- Removal of any associated chemicals, oils or any other materials used in the utilities area for redistribution, return to vendor or disposal.

- Waste oils, lubricants and diesel will be sent for suitable re-use, recovery, treatment or disposal as appropriate. Any hazardous waste arising from the plant and utilities areas will be removed from site and disposed of.

15.5.3 Warehouse Area Decommissioning Management Plan

The DMP for the stores warehouse would consist of the following actions

- Cancellation of all orders for incoming materials to the site.
- Negotiation with other plants with a view to distribution of unused materials.
- Negotiation with relevant suppliers to return unused materials to supplier.
- Dispatch of opened containers and non-returnable or out-of-date goods for appropriate treatment or disposal.
- Cleaning and decontamination of the storage areas.

15.5.4 Site Decommissioning Management Plan

The following actions would be required to ensure the implementation of the site DMP

- Cessation of any construction project work on site so that the site is left in a safe and orderly condition. Contractors will be required to decommission any construction compounds and remove all construction equipment, construction materials and waste, storage units and temporary offices from the site at the completion of construction projects.
- Disbandment of contract personnel, facilities and equipment.
- Termination of all non-essential maintenance and other contracts.
- Removal from site any temporary offices or storage areas.
- Rationalization of the site electricity supply. This would involve removing transformers from service, allowing remaining site operations to run from one transformer.
- The boilers onsite will be decommissioned.

16 CONCLUSIONS AND RECOMMENDATIONS

Seven key environmental impacts can be occurred from the project objectivities. Yu Chang (Myanmar) Spray Cotton Co. Ltd should be reduced and monitored on these environmental impacts by following specifically the impacts management and monitoring plan described in section 5. On the other hand, there will be left to be investigated positive

impacts such as Job Opportunities and surrounding villages can be developed by CSR program of the factory.

17 MANAGEMENT REVIEW

A process that will review the results of the implementation of environmental management and monitoring plan by the analysis of the monitoring results to ensure that the mitigation measures and management actions are fully satisfied with the minimum side effects to the environment is required. The SHE manager shall work with all HODs to carry out analysis and evaluation of monitoring results in compliance with set environmental standard values. The SHE manager has the overall responsibility for ensuring that this EMP is implemented to ensure the project operation is in compliance with applicable environmental legislations.

The HR Manager of Yu Chang (Myanmar) Spray Cotton Co. Ltd will be the responsible person of management review process. He shall be supported by all HODs and various functional heads.

References

- Environmental conservation law and rules
- Environmental impact assessment
- Myanmar Information Management Unit (http://themimu.info)
- Myanmar law library
- Department of Meteorology and Hydrology (https://www.moezala.gov.mm)
- OSHE (Occupational Safety, Health, Environmental guideline)

APPENDIX 1

Company Registration

ကုမ္ပဏီမှတ်ပုံတင်လက်မှတ်

Certificate of Incorporation

YU CHANG (MYANMAR) SPRAY COTTON CO., LTD
Company Registration No. 120106600

မြန်မာနိုင်ငံကုမ္ပဏီများဥပဒေ၂၀၁၇ အရ
YU CHANG (MYANMAR) SPRAY COTTON CO., LTD
အား ၂၀၁၉ ခုနှစ် မေ ၂ ရက်နေ့တွင်
အစုရှယ်ယာအားဖြင့် တာဝန်ကန့်သတ်ထား သည့် အများနှင့်မသက်ဆိုင်သောကုမ္ပဏီ
အဖြစ် ဖွဲ့စည်းမှတ်ပုံတင်ခွင့်ပြုလိုက်သည်။

This is to certify that
YU CHANG (MYANMAR) SPRAY COTTON CO., LTD
was incorporated under the Myanmar Companies Law 2017 on 2 May 2019 as a Private Company Limited by Shares.

ကုမ္ပဏီမှတ်ပုံတင်အရာရှိ
Registrar of Companies
ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန
Directorate of Investment and Company Administration

COMPANY PROFILE

NEW FILING | BACK TO PREVIOUS PAGE | ORDER DOCUMENTS | PRINT CERTIFICATE

Company Name (English)	Company Name (Myanmar)	Registration Number	Registration Date
YU CHANG (MYANMAR) SPRAY COTTON CO., LTD		120106600	02/05/2019

Company Type	Status	Foreign Company	Small Company
Private Company Limited by Shares	Registered	Yes	Yes

Annual Return Due Date
02/06/2022

Principal Activity
13 - Manufacture of textiles
14 - Manufacture of wearing apparel

FILING HISTORY | ADDRESSES | OFFICERS | SHAREHOLDINGS | COMPANY AUTHORITY | MEMBERS | DOCUMENTS

Document No.	Form/Filing Type	Filing Date	Effective Date
22278020014	AR - Annual Return	12/05/2021	12/05/2021
14212810011	I-2C - Notice from the Registrar of requested rectification	21/09/2019	23/09/2019
13963080012	I-2A - Notice from Registrar of proposed rectification of register	23/08/2019	23/08/2019
13922860011	I-1A - Application for rectification of register	19/08/2019	23/08/2019
13434130012	AR - Annual Return	27/06/2019	27/06/2019
12612430010	A-1 - Application for incorporation as a private company limited by shares	02/05/2019	02/05/2019

COMPANY PROFILE

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Private Company Limited by Shares	Registered	Yes	Yes

Annual Return Due Date
02/06/2022

Principal Activity
13 - Manufacture of textiles
14 - Manufacture of wearing apparel

FILING HISTORY | ADDRESSES | OFFICERS | SHAREHOLDINGS | COMPANY AUTHORITY | MEMBERS | DOCUMENTS

Type	Address	Effective Date
Principal Place Of Business In Union	MYANMAR	02/05/2019
Registered Office In Union	NO.(3) MAIN ROAD, BLOCK NO.11/3 & 13/4+14/1, LOT NO.577, KYAUT PONE KWIN WARD, INNLUK VILLAGE TRACT, HMAW BI TOWNSHIP, YANGON REGION, MYANMAR 09455017582, george@lingmeidress.com	12/05/2021

DIRECTORATE OF INVESTMENT AND COMPANY ADMINISTRATION

Myanmar Companies Online (MyCO)

HOME | MYCO GUIDES | COMPANY SEARCH | HELP | LOGOUT | WELCOME, YU CHANG (MYANMAR) SPRAY COTTON CO., LTD - 112926128

COMPANY PROFILE

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Company Type	**Status**	**Foreign Company**	**Small Company**
Private Company Limited by Shares	Registered	Yes	Yes

Annual Return Due Date

02/06/2022

Principal Activity

13 - Manufacture of textiles
14 - Manufacture of wearing apparel

FILING HISTORY | ADDRESSES | OFFICERS | SHAREHOLDINGS | COMPANY AUTHORITY | MEMBERS | DOCUMENTS

Name	Type	Nationality	N.R.C. (For Myanmar Citizens)	Effective Date
MR. WU, GUANGJUN	Director	China	E 49314474	02/05/2019
MR.FENG, XIAOBING	Director	China	E66644454	02/05/2019
MS. LIU, YUCONG	Director	China	E 33098643	02/05/2019
MS. TAO, MEILIAN	Director	China	E 70215505	02/05/2019

Officer Details

Close

Officer Type
Director

Officer Title

Appointment Date
02/05/2019

Effective Date
02/05/2019

Last Changed Date
12/05/2021

Cessation Date

Full Name in English
MR. WU, GUANGJUN

Former Name in English

Full Name in Myanmar

Former Name in Myanmar

Nationality
China

N.R.C (for Myanmar citizens)/Passport(for foreign individuals)
E 49314474

Other Nationalities, if applicable

Business Occupation

Gender
Male

Date of Birth
26/03/1976

Phone number
09 455017582

Email address
george@lingmeidress.com

Address
NO.11, GROUP 20,
LINYI TOWN, NEIGHBORHOOD
COMMITTEE, RUGAO CITY, JIANGSU
PROVINCE, CHINA

Officer Details

Close

Officer Type
Director

Officer Title

Appointment Date
02/05/2019

Effective Date
02/05/2019

Last Changed Date
12/05/2021

Cessation Date

Full Name in English
MR.FENG, XIAOBING

Former Name in English

Full Name in Myanmar

Former Name in Myanmar

Nationality
China

N.R.C (for Myanmar citizens)/Passport(for foreign individuals)
E66644454

Other Nationalities, if applicable

Business Occupation

Gender
Male

Date of Birth
02/11/1978

Phone number
09 455017582

Email address
george@lingmeidress.com

Address
RUCHENG STREET,
ROOM101, BUILDING 30, JINJIUHUAFU,
RUGAO CITY, JIANGSU PROVINCE, CHINA

Officer Details

Close

Officer Type
Director

Officer Title

Appointment Date
02/05/2019

Effective Date
02/05/2019

Last Changed Date
12/05/2021

Cessation Date

Full Name in English
MS. LIU, YUCONG

Former Name in English

Full Name in Myanmar

Former Name in Myanmar

Nationality
China

N.R.C (for Myanmar citizens)/Passport(for foreign individuals)
E 33098643

Other Nationalities, if applicable

Business Occupation

Gender
Female

Date of Birth
03/11/1970

Phone number

Email address

Address
18TH GROUP, BAI LINYI
NEIGHBORHOOD COMMITTEE,
RUGAO CITY, NANTONG , JIANGSU,
CHINA

Officer Details

Close

Officer Type
Director

Officer Title

Appointment Date	Effective Date	Last Changed Date	Cessation Date
02/05/2019	02/05/2019	12/05/2021	

Full Name in English
MS. TAO, MEILIAN

Former Name in English

Full Name in Myanmar

Former Name in Myanmar

Nationality
China

N.R.C (for Myanmar citizens)/Passport(for foreign individuals)
E 70215505

Other Nationalities, if applicable

Business Occupation

Gender
Female

Date of Birth
01/09/1959

Phone number

Email address

Address
CENTRAL VILLAGE,
XINGDONG TOWN, TONGZHOU
DISTRICT, NANTONG CITY, JIANGSU
PROVINCE, CHINA

COMPANY PROFILE

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Company Type	Status	Foreign Company	Small Company
Private Company Limited by Shares	Registered	Yes	Yes

Annual Return Due Date
02/06/2022

Principal Activity
13 - Manufacture of textiles
14 - Manufacture of wearing apparel

FILING HISTORY | ADDRESSES | OFFICERS | SHAREHOLDINGS | COMPANY AUTHORITY | MEMBERS | DOCUMENTS

Total Shares Issued by Company	Currency of Share Capital
1000000	USD

ULTIMATE HOLDING COMPANY

Company Name	Registration Number	Jurisdiction of Incorporation

SHARE CAPITAL STRUCTURE

Share Class	Class Title	Total No. Shares	Total Amount Paid	Total Amount Unpaid
ORD	Ordinary	1,000,000	1,000,000	0

COMPANY PROFILE

NEW FILING | BACK TO PREVIOUS PAGE | ORDER DOCUMENTS | PRINT CERTIFICATE

Company Name (English)
YU CHANG (MYANMAR) SPRAY COTTON CO., LTD

Company Name (Myanmar)

Registration Number
120106600

Registration Date
02/05/2019

Company Type
Private Company Limited by Shares

Status
Registered

Foreign Company
Yes

Small Company
Yes

Annual Return Due Date
02/06/2022

Principal Activity
13 - Manufacture of textiles
14 - Manufacture of wearing apparel

FILING HISTORY | ADDRESSES | OFFICERS | SHAREHOLDINGS | COMPANY AUTHORITY | MEMBERS | DOCUMENTS

Account Number	Account Name	Status	Request Date	Authority Start Date	Authority End Date	
100147697	YE NOOS & ASSOCIATES (LAW FIRM)	Active	05/04/2019	05/04/2019		Revoke
112926128	YU CHANG (MYANMAR) SPRAY COTTON CO., LTD	Active	02/05/2019	02/05/2019		Revoke

DIRECTORATE OF INVESTMENT AND COMPANY ADMINISTRATION

Myanmar Companies Online (MyCO)

COMPANY PROFILE

NEW FILING | BACK TO PREVIOUS PAGE | ORDER DOCUMENTS | PRINT CERTIFICATE

Company Name (English)	Company Name (Myanmar)	Registration Number	Registration Date
YU CHANG (MYANMAR) SPRAY COTTON CO., LTD		120106600	02/05/2019

Company Type	Status	Foreign Company	Small Company
Private Company Limited by Shares	Registered	Yes	Yes

Annual Return Due Date

02/06/2022

Principal Activity

13 - Manufacture of textiles
14 - Manufacture of wearing apparel

FILING HISTORY | ADDRESSES | OFFICERS | SHAREHOLDINGS | COMPANY AUTHORITY | MEMBERS | DOCUMENTS

Individual Members

Name	Nationality	N.R.C / Passport Number
MR. FENG, XIAOBING	China	E 66644454
MR. WU, GUANGJUN	China	E 49314474
MS. LIU, YUCONG	China	E 33098643
MS. TAO, MEILIAN	China	E70215505

Corporate Members

Name	Registration Number	Jurisdiction Of Incorporation

Member Details

Close

Full Name in English
MR. FENG, XIAOBING

Full Name in Myanmar

Nationality
China

N.R.C (for Myanmar citizens)/Passport(for foreign individuals)
E 66644454

Other Nationalities, if applicable

Gender
Male

Date of Birth
02/11/1978

Phone

Email address

Address
RUCHENG STREET,
ROOM 101, BUILDING 30, JINJIUHUAFU,
RUGAO CITY, JIANGSU PROVINCE, CHINA

Shareholdings

Share Class	Class Description	Total No. Shares	Total Amount Paid	Total Amount Unpaid
ORD	Ordinary	200,000	200,000	0

Member Details

Close

Full Name in English
MR. WU, GUANGJUN

Full Name in Myanmar

Nationality
China

N.R.C (for Myanmar citizens)/Passport(for foreign individuals)
E 49314474

Other Nationalities, if applicable

Gender
Male

Date of Birth
26/03/1976

Phone

Email address

Address
NO.11, GROUP 20,
LINYI TOWN, NEIGHBORHOOD
COMMITTEE, RUGAO CITY, JUANGSU
PROVINCE , CHINA

Shareholdings

Share Class	Class Description	Total No. Shares	Total Amount Paid	Total Amount Unpaid
ORD	Ordinary	500,000	500,000	0

Member Details

Close

Full Name in English
MS. LIU, YUCONG

Full Name in Myanmar

Nationality
China

N.R.C (for Myanmar citizens)/Passport(for foreign individuals)
E 33098643

Other Nationalities, if applicable

Gender
Female

Date of Birth
03/11/1970

Phone

Email address

Address
18TH GROUP, BAI LINYI,
NEIGHBORHOOD COMMITTEE,
RUGAO CITY, NANTONG, JIANGSU ,
CHINA

Shareholdings

Share Class	Class Description	Total No. Shares	Total Amount Paid	Total Amount Unpaid
ORD	Ordinary	200,000	200,000	0

Member Details

Close

Full Name in English
MS. TAO, MEILIAN

Full Name in Myanmar

Nationality
China

N.R.C (for Myanmar citizens)/Passport(for foreign individuals)
E70215505

Other Nationalities, if applicable

Gender
Female

Date of Birth
01/09/1959

Phone

Email address

Address
CENTRAL VILLAGE,
XINGDONG TOWN, TONGZHOU
DISTRICT, NANTONG CITY, JIANGSU
PROVINCE , CHINA

Shareholdings

Share Class	Class Description	Total No. Shares	Total Amount Paid	Total Amount Unpaid
ORD	Ordinary	100,000	100,000	0

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

English

HOME | MYCO GUIDES | COMPANY SEARCH | HELP | LOGOUT | WELCOME, YU CHANG (MYANMAR) SPRAY COTTON CO., LTD - 112926128

COMPANY PROFILE

+NEW FILING | BACK TO PREVIOUS PAGE | ORDER DOCUMENTS | PRINT CERTIFICATE

Company Name (English)	Company Name (Myanmar)	Registration Number	Registration Date
YU CHANG (MYANMAR) SPRAY COTTON CO., LTD		120106600	02/05/2019

Company Type	Status	Foreign Company	Small Company
Private Company Limited by Shares	Registered	Yes	Yes

Annual Return Due Date
02/06/2022

Principal Activity
13 - Manufacture of textiles
14 - Manufacture of wearing apparel

FILING HISTORY | ADDRESSES | OFFICERS | SHAREHOLDINGS | COMPANY AUTHORITY | MEMBERS | DOCUMENTS

	Type	Form	Date
	Certificate of Incorporation	I-2C - Notice from the Registrar of requested rectification	28/09/2020
	Copy of Officers ID's	A-1 - Application for incorporation as a private company limited by shares	02/05/2019
	Certificate of Incorporation	A-1 - Application for incorporation as a private company limited by shares	02/05/2019

APPENDIX 2

Director List

Exhibit (1)

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

LIST OF DIRECTORS

Sr. No.	Name	Citizenship	Passport No	Designation	Address	Numbers Of Shares Capital	Shares Capital Ratio
A-	MR. WU, GUANGJUN	Chinese	E 49314474	Director	No. 11, Group 20, Linyi Town, Neighborhood Committee, Rugo City, Jiangsu Province, China	500,000.00	50.00%
B-	MR. FENG, XIAOBING	Chinese	E 66644454	Director	Rucheng Street, Room 101, Building 30, Jinjiuhuafu,Rugao City, Jiangsu Province, China	200,000.00	20.00%
C-	MS. LIU, YUCONG	Chinese	E 33098643	Director	18th Group, Bai Linyi Neighborhood Committee, Rugao City, Nantong, Jiangsu, China	200,000.00	20.00%
D-	MS. TAO, MEILIAN	Chinese	E 70215505	Director	Central Village, Xingdong Town, Tongzhou District, Nantong City, Jiangsu Province, China	100,000.00	10.00%

MR. WU, GUANGJUN 吴光俊
DIRECTOR
YU CHANG (MYANMAR) SPRAY COTTON CO., LTD

APPENDIX 3

Factory Accessories/Operating Machinery

Exhibit (2)

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED.

List of Machineries and Equipment (TO BE IMPORTED)

Sr No.	Particular	A/U	Qty	Price in (USD)	Value in (USD)	HS CODE
1	Mixing Opener	SET	2	16,300.00	32,600.00	8445190000
2	Opener	SET	2	10,000.00	20,000.00	8445190000
3	Feeder 80 "	SET	2	9,650.00	19,300.00	8445190000
4	Carding 80 "	SET	2	38,500.00	77,000.00	8445119090
5	Feeder 100 "	SET	1	10,400.00	10,400.00	8445190000
6	Carding 100 "	SET	1	50,400.00	50,400.00	8445119090
7	Cross Lapper 100 "	SET	1	22,250.00	22,250.00	8449009000
8	Cross Lapper 80 "	SET	2	19,300.00	38,600.00	8449009000
9	Five Roller Stretcher	SET	1	4,450.00	4,450.00	8448320000
10	Hot Fixing Machine	SET	1	100,750.00	100,750.00	8451800003
11	Ironing Machine	SET	1	19,300.00	19,300.00	8420100001
12	Cutting and Coiling Machine	SET	1	8,900.00	8,900.00	8451500000
13	Opener		1	4,450.00	4,450.00	8445190000
14	Full - Automatic Straight and Dianonal Stripes Cutting and Baling Machine Automatically to the Side Straight Grain Cloth Knife Grinder	SET	1	7,400.00	7,400.00	84532000
15	Opener	SET	1	7,400.00	7,400.00	8445190000
16	Pearl Cotton Machine	SET	1	7,400.00	7,400.00	8444004000
17	Quilting Machine	SET	20	20,000.00	400,000.00	8452219000
18	Rolling Machine	SET	1	5,000.00	5,000.00	84532000
19	Embroidery Machine	SET	10	20,000.00	200,000.00	8447902000
					1,035,600.00	

မှတ်ချက်။ ။ အထက်ဖော်ပြပါစက်ပစ္စည်းများအား China မှ Brand New စက်ပစ္စည်းများအဖြစ်တင်သွင်းမည်ဖြစ်ပါသည်။

YU CHANG (MYANMAR) SPRAY COTTON CO., LTD.

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED.

List of Electrical Materials (LOCAL PURCHASE)

Sr No.	Particular	Unit	Qty	Price in (Kyat)	Value in (Kyat)	Equivalent (US$)
1	Air Compressor 10 HP	UNIT	5	1,650,000	8,250,000.00	5,500.00
2	Air Conditioner 5 HP	UNIT	10	1,747,500	17,475,000.00	11,650.00
3	Air Conditioner 3 HP	UNIT	8	1,500,000	12,000,000.00	8,000.00
4	Air Conditioner 1.5 HP	UNIT	30	1,250,000	37,500,000.00	25,000.00
5	Emergency Light	SET	50	252,000	12,600,000.00	8,400.00
6	Refrigerator	UNIT	3	1,062,500	3,187,500.00	2,125.00
7	Washing Machine (50 Kg ~ 100 Kg)	UNIT	2	1,875,000	3,750,000.00	2,500.00
8	Scanner	UNIT	6	625,000	3,750,000.00	2,500.00
9	Ticket Printer	UNIT	6	625,000	3,750,000.00	2,500.00
10	Finger Print	UNIT	15	375,000	5,625,000.00	3,750.00
11	Copier	UNIT	2	1,687,500	3,375,000.00	2,250.00
12	Printer	SET	5	630,000	3,150,000.00	2,100.00
13	Boiler - (Gas)	SET	1	37,500,000.00	37,500,000.00	25,000.00
14	Generator - Diesel (700 KVA)	SET	2	18,750,000.00	37,500,000.00	25,000.00
15	Forklifts	SET	1	37,500,000.00	37,500,000.00	25,000.00
	TOTAL				**226,912,500.00**	**151,275.00**

Note US$ 1 = Kyat 1,500 ဖတ်ဘက် ရက်စွဲ 28.6.2019

မှတ်ချက်။ ။ အထက်ဖော်ပြပါစက်ပစ္စည်းများအား Local မှ Brand New ပစ္စည်းများအဖြစ် ဝယ်မည်ဖြစ်ပါသည်။

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED.

List of Vehicle (LOCAL PURCHASE)

Sr No.	Particular	Unit	Qty	Price in (Kyat)	Value in (Kyat)	Equivalent (US$)
1	Box Truck - 2014 Mdl (2.5 T)	UNIT	1	22,500,000	22,500,000	15,000.00
2	Box Truck - 2014 Mdl (5.0 T)	UNIT	1	36,750,000	36,750,000	24,500.00
3	Motor Vehicles - Saloon	UNIT	2	43,500,000	87,000,000	58,000.00
	TOTAL				146,250,000	97,500

Note : US$ 1 = Kyat 1,500

ဝဟိဘက် ရက်စွဲ 28.6.2019

မှတ်ချက်။ ။ အထက်ဖော်ပြပါစက်ပစ္စည်းများအား Local မှ Brand New ပစ္စည်းများအဖြစ် ဝယ်မည်ဖြစ်ပါသည်။

APPENDIX 4

Raw Material Requirement

Exhibit (7)

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED.

Annual Raw Materials Requirement (To Be Imported)

NO.	PARTICULARS	UNIT	Year - 1	Year - 2	Year - 3	Year - 4	Year - 5	Year - (6 ~ 30)
	Raw - Materials							
1	Polyester	TON	321.98	354.18	378.97	397.92	417.82	447.07
2	Glue	TON	35.02	38.52	41.22	43.28	45.44	48.63
3	Woven Interlining	TON	35.00	38.50	41.20	43.25	45.42	48.60
4	Non - Woven Interlining	TON	17.50	19.25	20.60	21.63	22.71	24.30
5	Door Interlining	TON	8.75	9.63	10.30	10.81	11.35	12.15
			418.25	460.08	492.28	516.90	542.74	580.74

TE (US $)

NO.	PARTICULARS	UNIT	Year - 1	Year - 2	Year - 3	Year - 4	Year - 5	Year - (6 ~ 30)
	Raw - Materials							
1	Polyester	US$/TON	725.00	735.00	750.00	765.00	780.00	800.00
2	Glue	US$/TON	200.00	210.00	215.00	220.00	225.00	230.00
3	Woven Interlining	US$/TON	110.00	110.00	112.00	115.00	115.00	117.00
4	Non - Woven Interlining	US$/TON	135.00	135.00	138.00	140.00	140.00	142.00
5	Door Interlining	US$/TON	60.00	60.00	62.00	63.00	63.00	65.00

LUE (US $)

NO.	PARTICULARS	UNIT	Year - 1	Year - 2	Year - 3	Year - 4	Year - 5	Year - (6 ~ 30)
	Raw - Materials							
1	Polyester	US $	233,435	260,323	284,230	304,410	325,898	357,652
2	Glue	US $	7,004	8,090	8,862	9,522	10,225	11,184
3	Woven Interlining	US $	3,850	4,235	4,614	4,974	5,223	5,686
4	Non - Woven Interlining	US $	2,363	2,599	2,842	3,028	3,179	3,450
5	Door Interlining	US $	525	578	639	681	715	790
			247,176	275,824	301,187	322,616	345,241	378,762

MR. WU CHUN JUN

YU CHANG (MYANMAR)

APPENDIX 5

Staff list

Exhibit (6 - A)

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED.

List of Overseas Employee

No.	Designation	Salaries /Month US $	Number of Person	Monthly - US $	Yearly - US $
1	Factory Manager	2000	1	2,000	24,000
2	Financial Controller	1500	1	1,500	18,000
3	Quality Assurance Manager	1000	3	3,000	36,000
4	Cutting Manager	1000	2	2,000	24,000
5	Engineer Supervisor	1200	3	3,600	43,200
6	Mechanic Manager	1000	1	1,000	12,000
7	Technician (Production Line)	750	2	1,500	18,000
8	Technician (Quality Assurance)	750	2	1,500	18,000
	TOTAL		**15**	**16,100**	**193,200**

ote : Full Time Overseas Employee

ာမနှစ်တွင် နိုင်ငံခြားသားဝန်ထမ်း (ပညာရှင်အပါအဝင်) ၁၅ ဦးခန့်အပ်ပြီး လုပ်ငန်းစတင်လည်ပတ်၍ စီးပွားဖြစ်စတင်သည့်နှစ်မှစ၍ နောက်နှစ်များတွင်
ထွေးနည်းခန့်ထားသွားမည်ဖြစ်ပါသည်။

YU CHANG (MYANMAR) SPRAY COTTON CO.,LTD.

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED.

List of Local Employee

Sr.No.	Designation	Salaries /Month Kyat	Number of Person	Monthly - Kyat	Yearly - Kyat
1	Admin Manager	500,000	1	500,000	6,000,000
2	Financial Manager	400,000	1	400,000	4,800,000
3	Marketing Manager	350,000	1	350,000	4,200,000
4	HR Manager	400,000	1	400,000	4,800,000
5	Technician (Engineer)	350,000	1	350,000	4,200,000
6	Skilled Worker	300,000	150	45,000,000	540,000,000
7	Unskilled Worker	250,000	25	6,250,000	75,000,000
8	Quality Control	200,000	3	600,000	7,200,000
9	Store Keeper	250,000	1	250,000	3,000,000
10	Computer Operator	180,000	1	180,000	2,160,000
11	Telephone Operator	200,000	1	200,000	2,400,000
12	Office /Accounts Assistant	150,000	2	300,000	3,600,000
13	Driver	200,000	2	400,000	4,800,000
14	Guard/Cleaner	200,000	3	600,000	7,200,000
	TOTAL		**193**	**55,780,000**	**669,360,000**

APPENDIX 6

Corporate Social Responsibility Plan

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,
Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

To

The Chairman
Yangon Region Investment Committee
Republic of the Union of Myanmar
Yangon Region.

Date : : , July, 2019.

Subject : : **Explanation for taking of responsibility for CSR (Corporate Social Responsibility)**

We " YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED " have proposed to Myanmar Investment Commission to open office for Manufacturing of Synthetic Resin for Clothing such as Jacket and Warm Coat for CMP Factory Enterprises factory in (**2.82**) acres (including Holding No.(11/3) which is (2.32) acres, and Holding No.(13/4 + 14/1) which is (0.5) acres out of (3.44) acres) at the place so called as Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road, Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

From such proposed works Company will subscribe for CSR (2%) from gross profit. In doing so, such subscribe money will be used for charity of employees, occasional proper training courses for employees and so on.

With respect,

MR. WU, GUANGJUN
DIRECTOR
YU CHANG (MYANMAR) SPRAY COTTON CO.,LTD

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,

Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

သို့/-

ဥက္ကဋ္ဌ
မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်
ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ရန်ကုန်တိုင်းဒေသကြီး။

ရက်စွဲ ။ ။ ၂၀၁၉ ခုနှစ်၊ ဇူလိုင်လ၊ ( )ရက်။

အကြောင်းအရာ။ ။ (Corporate Social Responsibiliy-CSR)လူနေမှုဘဝ သာယာဝပြောရေး တာဝန်ယူမှုနှင့်ပတ်သက်၍ ရှင်းလင်းတင်ပြခြင်း။

ကျွန်တော်များ YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED သည် ရန်ကုန်တိုင်းဒေသကြီး၊ မြောက်ပိုင်းခရိုင်၊ မှော်ဘီမြို့နယ်၊ အင်းလျက်ကျေးရွာအုပ်စု၊ ဦးပိုင်အမှတ် (၁၁/၃)၊ကွင်းအမည်-၅၇၇-အင်းလျက်၊ ဦးပိုင်အမှတ်-(၁၃/၄ + ၁၄/၁)၊ကွင်းအမည် ၅၇၇-ကျောက်ပုန်း ဟူ၍ တွင်သော မြေဧရိယာ(၂. ၈၂) ဧကအနက်မှ (၂. ၃၂)ရှိသော မြေကွက်ပေါ်တွင် အနွေးထည်၊ဂျာကင်များ ချုပ်လုပ်ရာတွင် အသုံးပြုသည့် Synthetic Resin များကို ထုတ်လုပ်၍ ဖြန့်ဖြူးရောင်းချသည့်လုပ်ငန်း ဆောင်ရွက်ရန်အတွက် မြန်မာနိုင်ငံရင်းနှီး မြှုပ်နှံမှုကော်မရှင်သို့ အဆိုပြုတင်ပြထားပါသည်။

ယင်းသို့ အဆိုပြုတင်ပြထားသောလုပ်ငန်း၏ ကုမ္ပဏီအသားတင် အမြတ်ငွေထဲမှ (၂%)အား (CSR) အတွက် ထည့်ဝင်သွားမည် ဖြစ်ပါသည်။ ထည့်ဝင်မှုများမှာ အောက်ပါအတိုင်းဖြစ်ပါသည်။

(၁) လုပ်ငန်းခွင်အတွင်း လုပ်ကိုင်နေကြသော ဝန်ထမ်းများ၏ ပညာရေး၊ ဝန်ထမ်းများ၏ ကျောင်းနေ အရွယ်ကလေးများ ကျောင်းတက်နိုင်ရေး၊ အဆင့်မြင့်(ကောလိပ်) တက္ကသိုလ်ပညာရပ်များ ဆက်လက်သင်ကြားနိုင်စေရန် ပညာသင်စရိတ်ထောက်ပံ့ကြေး ပေးအပ်ခြင်း အစရှိသည့် ပညာရေး ထောက်ပံ့ပေးမှုအတွက် (၂၅) %

(၂) လုပ်ငန်းခွင်အတွင်း ဝန်ထမ်း၊ အလုပ်သမားများ၏ ကျန်းမာရေး အခြေခံစောင့်ရှောက်မှု အတွက် အလုပ်ရုံတွင်း ကျန်းမာရေးဆေးပေးခန်းများ ဖွင့်လှစ်ခြင်း၊ ဆေးခန်းတွင်းဆေးပစ္စည်း ကိရိယာ

U CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,

Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

ပြည့်စုံစေရေး၊ အရေးပေါ်ကျန်းမာရေးစောင့်ရှောက်မှု အတွက်ရှေးဦးသူနာပြုကုထုံး၊ ဆေးဝါးများ ပြင်ဆင်ထားရှိခြင်းများအပြင် ဝန်ထမ်းမိသားစုများနာမကျန်းဖြစ်ပါက ထောက်ပံ့ကြေးများ ပေးအပ်ခြင်းတို့အတွက် (၂၅) %

(၃) မွေးမြူရေးနှင့် ပတ်သက်သည့် အသိပညာ ဗဟုသုတများ တိုးပွားစေရေး၊ လုပ်ငန်းခွင်ရှိ ဝန်ထမ်းများ၏ လုပ်ငန်းခွင်ကျွမ်းကျင်မှု တိုးတက်လာစေရန်၊ ရာထူး၊ နေရာအလိုက်သင်ကန်းများ အဆင့်ဆင့်ပို့ချပေးခြင်း၊ အလုပ်သမားများ၏ လုပ်ငန်းပိုင်းပညာရပ်တိုးတက်လာမှုနှင့်အတူ ထုတ်လုပ်မှုစွမ်းအားမြင့်မားလာပြီး ကျွမ်းကျင်လုပ်သားများအဖြစ် ရပ်တည်နိုင်စေရန်အတွက် (၂၅) %

(၄) စက်ရုံဝန်ထမ်းများ၏ ကျန်းမာပျော်ရွှင်မှုနှင့် လုပ်ငန်းခွင်သာယာဝပြောရေးအတွက် လိုအပ်သော အပန်းဖြေအနားယူစရာများ ဖန်တီးပေးထားခြင်း၊ လုပ်ငန်းခွင်အတွင်း လေဝင်လေထွက်ကောင်းမွန်ပြီး အလုပ်လုပ်ကိုင်ရာတွင်အဆင်ပြေစေရန်နှင့် အခြားသောသွားလာ ဆက်သွယ်ရေးကိစ္စများတွင် အဆင်ပြေချောမွေ့စေပြီး လူနေမှုအဆင့်အတန်း မြင့်မားလာစေရေးအတွက် (၂၅) %

လေးစားစွာဖြင့်-

MR. WU, GUANGJUN
DIRECTOR
YU CHANG (MYANMAR) SPRAY COTTON
CO.,LTD

APPENDIX 7

Social Welfare Plan

TU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,
Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

To

The Chairman
Yangon Region Investment Committee
Republic of the Union of Myanmar
Yangon Region.

Date : : , July, 2019.

Subject : : Submission in Plan for the Employees of Factory With Welfare and Peace and Harmony

It intends to Manufacturing of Synthetic Resin for Clothing such as Jacket and Warm Coat for CMP Factory Enterprises factory in (2.82) acres (including Holding No.(11/3) which is (2.32) acres, and Holding No.(13/4 + 14/1) which is (0.5) acres out of (3.44) acres) at the place so called as Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road, Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

As a company it plans to submission in plan for the employees of factory of welfare and peace and harmony. As follows;

(1) Transportation for Office Staffs

A plan of provide ferry which that is used for coming to factory and going to home. It is free cost to employees when they take the ferry of factory.

(2) Providing Awards in Punctually of Work

Overtime fees is counted in twice to one hour for employees of factor. In order to need of work there provides additional fees for them working till night.

(3) Opening Canteen for Employees Walfare

There is a shop to serve tea, sancks and rice / curry.

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,

Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

(4) Providing Peace and Harmony of the Compound of Work

The employees who are hard working and no absence of work will get the bonuses of yearly in plan.

(5) A Plan for Injury

We provide one room for first aids box and a resting room of sickness persons. If employee gets injury we plan to send in curing to Social Welfare Hospital. For those social welfares employee must also employee put their subscribes.

With respect,

吴光俊

MR. WU, GUANGJUN

DIRECTOR

YU CHANG (MYANMAR) SPRAY COTTON

CO.,LTD

APPENDIX 8

Plan For Health

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,
Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

Plan for Health

We **YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED** intends to Manufacturing of Synthetic Resin for Clothing such as Jacket and Warm Coat for CMP Factory Enterprises factory and as for workers of our factory we provide for the followig health programs.

(a) Medicine and first aids are placed at factory as emergency matters happen.

(b) In factory there are first aids boxes and a resting room for sickness people as a plan.

(c) One who gets injury shall be sent to Social Welfare Hospital as a care.

(d) We will provide employees to learn in training concern with health care for one time in three months. It aims first aids for injured person in emergency case. The factory will pay the costs of hospital to employees who are working in long term at factory as a plan for health.

(e) We will supply the cost of medicine according to requirement for healthy of employees who are working long time.

With respect,

吴光俊

MR. WU, GUANGJUN
DIRECTOR
YU CHANG (MYANMAR) SPRAY COTTON
CO.,LTD

APPENDIX 9

Fire Prevention Plan

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,
Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

" FIRE PRECAUTION PLAN "

1. We submit that it **YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED** intends of Manufacturing of Synthetic Resin for Clothing such as Jacket and Warm Coat for CMP Factory Enterprises factory in (**2.82**) acres (including Holding No.(11/3) which is (2.32) acres, and Holding No.(13/4 + 14/1) which is (0.5) acres out of (3.44) acres) at the place so called as Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road, Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

2. Our company, as for fire precaution in doing various paper container & packaging materials production and sale, will construct (8,000) gallon water tank. Building of factory is constructed with steel structure to prevent from fire and water bucket, hook, sand bag & fire extinguisher will in ready condition. Fire extinguishers will be hung on the walls of factory too.. Besides, conditions for fire hazardous are provided within factory and planned to follow exactly by the employees. The employees will also be trained extinguishing technique to prevent from fire. Smoking is strictly prohibited within around environment of factory in accordance with laws provided and it had been planned not to occur dangers related to electricity.

With respect,

MR. WU, GUANGJUN
DIRECTOR
YU CHANG (MYANMAR) SPRAY COTTON
CO.,LTD

APPENDIX 10

Plan for Environment

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,
Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

သို့/-

ဥက္ကဋ္ဌ
ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီ
ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ရန်ကုန်တိုင်းဒေသကြီး။

ရက်စွဲ ။ ။ ၂၀၁၉ ခုနှစ်၊ ဇူလိုင်( )ရက်။

အကြောင်းအရာ။ ။ <u>လုပ်ငန်းခွင်အတွင်း သန့်ရှင်းစေရန်နှင့် ကာကွယ်ထားရှိမှုတို့အတွက် ရှင်းလင်းတင်ပြခြင်း။</u>

၁။ ကျွန်တော်များ "YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED" သည် ရန်ကုန်တိုင်းဒေသကြီး၊ မြောက်ပိုင်းခရိုင်၊ မှော်ဘီမြို့နယ်၊ အင်းလျက်ကျေးရွာအုပ်စု၊ ဦးပိုင်အမှတ် (၁၁/၃)၊ကွင်းအမည်-၅၇၇-ကျောက်ပုန်း ဟု ခေါ်တွင်သော မြေဧရိယာ (၂. ၃၂) ဧက၊ ဦးပိုင်အမှတ်-(၁၃/၄ + ၁၄/၁)၊ကွင်းအမည် ၅၇၇-ကျောက်ပုန်း ဟုခေါ်တွင်သော မြေဧရိယာ (၃. ၄၄) ဧကအနက်မှ (၀. ၅) ဧက စုစုပေါင်း မြေဧရိယာ (၂. ၈၂) ဧကရှိ မြေကွက်အား ငှားရမ်း၍ Manufacturing of Synthetic Resin for Clothing such as Jacket and Warm Coat for CMP Factory Enterprises လုပ်ငန်းအား လုပ်ကိုင်ဆောင်ရွက်ခွင့်အတွက် ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီသို့ အတည်ပြုတင်ပြထားပါသည်။

၂။ ကုမ္ပဏီအနေဖြင့် လုပ်ငန်းခွင်အတွင်း သန့်ရှင်းစေရန်အတွက် အောက်ဖော်ပြပါကဏ္ဍများ အလိုက် စီမံဆောင်ရွက်ထားရှိမည် ဖြစ်ပါသည်။

(က) လုပ်ငန်းခွင်အတွင်း အသုံးပြုသည့် စက်ပစ္စည်းများသည် ခေတ်မီစက်ပစ္စည်းဖြစ်သည့်အတွက် ထုတ်လုပ်မှုအဆင့်ဆင့်လုပ်ဆောင်ရာတွင် ထိခိုက်မှုအနည်းဆုံးဖြစ်စေမည့် စက်ပစ္စည်းများကို အသုံးပြုထားပြီး ၎င်းစက်ပစ္စည်းလည်ပတ်ရာတွင် အလိုအလျောက် လေသန့်စင်သည့် စနစ်ပါရှိပါသည်။ စက်ရုံအဆောက်အဦးအတွင်းတွင်လည်း လေသန့်စင်သည့် စနစ်ကို တပ်ဆင်ထားမည်ဖြစ်ပါသည်။

(ခ) Synthetic Resin များကို ထုတ်လုပ်ရာတွင် ကုန်ကြမ်းများ၊ ကုန်ချောများ စသည်ဖြင့် သီးခြားအကန့်များခွဲပြီး စနစ်တကျ ရှင်းလင်းစွာဖြင့် ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED
Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,
Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

(၈) စက်ရုံရှိဝန်ထမ်းများ၏ ကျန်းမာရေးထိခိုက်ပျက်စီးမှုများ မဖြစ်စေရန် ကာကွယ်သည့်အနေဖြင့် လုပ်ငန်းများလုပ်ဆောင်နေစဉ် Mask တပ်ပြီး လုပ်ဆောင်စေပါမည်။ ဝန်ထမ်းများလိုက်နာရမည့် စည်းကမ်းချက်များတွင်လည်း ထည့်သွင်းပြီး သတိပေးစာများ စက်ရုံအတွင်းတွင် ချိတ်ဆွဲထားမည်ဖြစ်ပါသည်။

၃။ ပတ်ဝန်းကျင်စိမ်းလန်းစိုပြေရေးနှင့် လေကောင်းလေသန့်ရရှိစေရေး အစီအမံများကို ဆောင်ရွက်ထားရှိမည်ဖြစ်ကြောင်း ရှင်းလင်းတင်ပြအပ်ပါသည်။

လေးစားစွာဖြင့် -

MR. WU, GUANGJUN
DIRECTOR
YU CHANG (MYANMAR) SPRAY
COTTON CO.,LTD

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED

Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road,
Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

To

The Chairman
Yangon Region Investment Committee
Republic of the Union of Myanmar
Yangon Region

Date : : , July, 2019.

Subject : : Plan for preventing of Environment

1. According to above mentioned, it intends Manufacturing of Synthetic Resin for Clothing such as Jacket and Warm Coat for CMP Factory Enterprises factory in (2.82) acres (including Holding No.(11/3) which is (2.32) acres, and Holding No.(13/4 + 14/1) which is (0.5) acres out of (3.44) acres) at the place so called as Holding No.(11/3), Kwin No.(577) and Holding No.(13/4 + 14/1), Kwin No.(577), No.(3), Main Road, Kyaut Pone Kwin Ward, Innluk Village Tract, Hmaw Bi Township, Yangon Region.

2. As a compnay for conservation of environment we plan for the following matters. Put to methods that facts of plan are fully mentioned at least damage while generating and producing in step by step.We will follow in accordance with Law, Regulation, Procedure and Directives Prescribed for environmental control.

With respect,

MR. WU, GUANGJUN
DIRECTOR
YU CHANG (MYANMAR) SPRAY COTTON
CO.,LTD

APPENDIX 11
Electrical usage

Exhibit (4 - A)

YU CHANG (MYANMAR) SPRAY COTTON COMPANY LIMITED.

ANNUAL ELECTRICITY USAGE

lculars	A/U	Year - 1	Year - 2	Year - 3	Year - 4	Year - 5	Year - 6	Year - 7	Year - 8	Year - 9	Year - 10 ~ 30
tricity	KWh	1,380,000	1,393,800	1,407,738	1,421,815.38	1,436,034	1,450,394	1,464,898	1,479,547	1,494,342	1,509,286
		1,380,000	1,393,800	1,407,738	1,421,815	1,436,034	1,450,394	1,464,898	1,479,547	1,494,342	1,509,286

APPENDIX 12
Water Test Result

ISO TECH LABORATORY

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

ISO 9001:2015 Cert. No. 688600

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

W0921 421

WATER QUALITY TEST RESULTS FORM

Client: Yu Chang (Myanmar) Spray Cotton Co.,Ltd.
Nature of Water: Tube Well Water
Location: Hmawbi Township
Date and Time of collection: 28.9.2021
Date and Time of arrival at Laboratory: 29.9.2021
Date and Time of commencing examination: 30.9.2021
Date and Time of completing: 2.10.2021

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
pH	7.1		6.5 - 8.5
Colour (True)	Nil	TCU	15 TCU
Turbidity	3	NTU	5 NTU
Conductivity		micro S/cm	
Total Hardness		mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness		mg/l as $CaCO_3$	
Magnesium Hardness		mg/l as $CaCO_3$	
Total Alkalinity		mg/l as $CaCO_3$	
Phenolphthalein Alkalinity		mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)		mg/l as $CaCO_3$	
Bicarbonate (HCO_3)		mg/l as $CaCO_3$	
Iron	0.24	mg/l	0.3 mg/l
Chloride (as CL)		mg/l	250 mg/l
Sodium Chloride (as NaCL)		mg/l	
Sulphate (as SO_4)		mg/l	500 mg/l
Total Solids		mg/l	1500 mg/l
Total Suspended Solids	5	mg/l	
Total Dissolved Solids	98	mg/l	1000 mg/l
Manganese		mg/l	0.05 mg/l
Phosphate	Nil	mg/l	
Phenolphthalein Acidity		mg/l	
Methyl Orange Acidity		mg/l	
Salinity		ppt	

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

Tested by
Signature: Heinz
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO TECH Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E(Civil)
Assistant Technical Officer
ISO TECH Laboratory

(a division of WEG Co.,Ltd.)
No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-73225175, 09-30339681, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

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

ISO 9001:2015 Cert. No. 688600

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 2 of 2

W0921 421

WATER QUALITY TEST RESULTS FORM

Client: Yu Chang (Myanmar) Spray Cotton Co.,Ltd.

Nature of Water: Tube Well Water

Location: Hmawbi Township

Date and Time of collection: 28.9.2021

Date and Time of arrival at Laboratory: 29.9.2021

Date and Time of commencing examination: 30.9.2021

Date and Time of completing: 2.10.2021

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)		°C	
Fluoride (F)		mg/l	1.5 mg/l
Lead (as Pb)		mg/l	0.01 mg/l
Arsenic (As)		mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	0.2.	mg/l	50 mg/l
Chlorine (Residual)		mg/l	
Ammonia Nitrogen (NH_3)		mg/l	
Ammonium Nitrogen (NH_4)		mg/l	
Dissolved Oxygen (DO)		mg/l	
Chemical Oxygen Demand (COD)		mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)		mg/l	
Cyanide (CN)		mg/l	0.07 mg/l
Zinc (Zn)		mg/l	3 mg/l
Copper (Cu)		mg/l	2 mg/l
Calcium (Ca)	18	mg/l	
Magnesium (Mg)	8	mg/l	
Silica (SiO_2)		mg/l	

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

Tested by

Signature: Heinz

Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO TECH Laboratory

Approved by

Signature:

Name: Thinzar Theint Theint
B.E(Civil)
Assistant Technical Officer
ISO TECH Laboratory

ISO TECH LABORATORY

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

ISO 9001:2015 Cert. No. 688600

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

WW0921 151

WATER QUALITY TEST RESULTS FORM

Client	Yu Chang (Myanmar) Spray Cotton Co.,Ltd.
Nature of Water	Wastewater (Outlet)
Location	Hmawbi Township
Date and Time of collection	28.9.2021
Date and Time of arrival at Laboratory	29.9.2021
Date and Time of commencing examination	30.9.2021
Date and Time of completing	5.10.2021

Results of Water Analysis

pH	7.7		
Colour (True)	10	TCU	
Turbidity		NTU	
Conductivity		micro S/cm	
Total Hardness		mg/l as $CaCO_3$	
Calcium Hardness		mg/l as $CaCO_3$	
Magnesium Hardness		mg/l as $CaCO_3$	
Total Alkalinity		mg/l as $CaCO_3$	
Phenolphthalein Alkalinity		mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)		mg/l as $CaCO_3$	
Bicarbonate (HCO_3)		mg/l as $CaCO_3$	
Iron		mg/l	
Chloride (as CL)		mg/l	
Sodium Chloride (as NaCL)		mg/l	
Sulphate (as SO_4)	10	mg/l	
Total Solids		mg/l	
Total Suspended Solids	22	mg/l	
Total Dissolved Solids		mg/l	
Manganese		mg/l	
Phosphate		mg/l	
Phenolphthalein Acidity		mg/l	
Methyl Orange Acidity		mg/l	
Salinity		ppt	

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

Tested by
Signature: Heinz
Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO TECH Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
B.E(Civil)
Assistant Technical Officer
ISO TECH Laboratory

ISO TECH LABORATORY

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

ISO 9001:2015 Cert. No. 688600

WW0921 151

WATER QUALITY TEST RESULTS FORM

Client: Yu Chang (Myanmar) Spray Cotton Co.,Ltd.

Nature of Water: Wastewater (Outlet)

Location: Hmawbi Township

Date and Time of collection: 28.9.2021

Date and Time of arrival at Laboratory: 29.9.2021

Date and Time of commencing examination: 30.9.2021

Date and Time of completing: 5.10.2021

Results of Water Analysis

Temperature (°C)		°C	
Fluoride (F)		mg/l	
Lead (as Pb)		mg/l	
Arsenic (As)		mg/l	
Nitrate ($N.NO_3$)		mg/l	
Chlorine (Residual)		mg/l	
Ammonia Nitrogen (NH_3)	0.61	mg/l	
Ammonium Nitrogen (NH_4)		mg/l	
Dissolved Oxygen (DO)		mg/l	
Chemical Oxygen Demand (COD)	64	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	20	mg/l	
Cyanide (CN)		mg/l	
Zinc (Zn)		mg/l	
Copper (Cu)	Nil	mg/l	
Silica (SiO_2)		mg/l	

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

Tested by

Signature:

Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr.Chemist
ISO TECH Laboratory

Approved by

Signature:

Name: Thiri Thein Thein
B.E(Civil)
Assistant Technical Officer
ISO TECH Laboratory

APPENDIX 13
Soil Test Result

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
စိုက်ပျိုးရေး၊မွေးမြူရေးနှင့်ဆည်မြောင်းဝန်ကြီးဌာန
စိုက်ပျိုးရေးဦးစီးဌာန
(မြေအသုံးချရေးဌာနခွဲ)
ရန်ကုန်မြို့

စာအမှတ်- ဓခ -၂/(၁)၊၂၁-၂၂ (၈၀၅)
နေ့စွဲ၂၀၂၁ ခုနှစ်၊ အောက်တိုဘာလ (၂၅) ရက်

အကြောင်းအရာ။ ။ **မြေနမူနာ**ဓါတ်ခွဲအဖြေပေးပို့ခြင်း။

ရည်ညွှန်းချက် ။ ။**Yu Chang (Myanmar)Spray Cotton Co.,Ltd.** မှ **(29.9.2021)** နေ့တွင် ပေးပို့သောနမူနာများ။

အထက်အကြောင်းအရာပါ ကိစ္စနှင့်ပတ်သက်၍ ရည်ညွှန်းစာဖြင့် ပေးပို့လာသော မြေနမူနာ **(၁ - မျိုး)** အားဓါတ်ခွဲ စစ်ဆေးပြီးဖြစ်၍ ဓါတ်ခွဲတွေ့ရှိချက် အဖြေများကို ဤစာနှင့်အတူ ပူးတွဲပေးပို့ ပါသည်။

(ဒေါက်တာသန္တာညီ)
ဒုတိယညွှန်ကြားရေးမှူး
ဓါတ်ခွဲခန်းတာဝန်ခံ
မြေအသုံးချရေးဌာနခွဲ

Yu Chang (Myanmar)Spray Cotton Co.,Ltd.

DEPARTMENT OF AGRICULTURE (LAND USE)

SOIL INTERPREATATION OF RESULTS

Yu Chang (Myanmar) Spray Cotton Co.,Ltd (29.9.2021)

Division – ရန်ကုန်

Township – မှော်ဘီ

Sheet No. 1

Sr No.S 1/2021

Sr No.	Sample	pH Soil:Water 1:2.5	Texture	Organic Carbon	Total N	Exchangeable Cations		Available Nutrients	
						Ca^+	Mg^+	P	K_2O
1	မြေနမူနာ	Slightly alkaline	Sandy Clay Loam	Very Low	Low	High	Medium	Medium	Medium

(ဒေါက်တာသန္တာညီ)

ဒုတိယညွှန်ကြားရေးမှူး

ဓာတ်ခွဲခန်းတာဝန်ခံ

မြေအသုံးချရေးဌာနခွဲ

DEPARTMENT OF AGRICULTURE (LAND USE)

SOIL ANALYTICAL DATA SHEET

Yu Chang (Myanmar) Spray Cotton Co.,Ltd (29.9.2021)

Division – ရန်ကုန်

Township – မှော်ဘီ

Sheet No. 1

Sr No.S 1/2021

Sr No.	Sample	Moisture %	pH Soil:Water 1:2.5	Texture				Organic Carbon %	Humus %	Total N %	Exchangeable Cations meq/100gm		Available Nutrients	
				Sand %	Silt %	Clay %	Total %				Ca^+	Mg^+	P ppm (O)	K_2O mg/100gm
1	မြေနမူနာ	3.37	7.24	56.36	19.96	23.68	100.00	0.58	1.00	0.15	26.89	5.52	8.28	18.01

O= Olsen Method

(ဒေါက်တာသန္တာညီ)

ဒုတိယညွှန်ကြားရေးမှူး

ဓာတ်ခွဲခန်းတာဝန်ခံ

မြေအသုံးချရေးဌာနခွဲ

APPENDIX 14
Air Quality Result

2021

AIR & NOISE

DATAS

Yu Chang (Myanmar) Spray Cotton Co. Ltd

Yu Chang (Myanmar) Spray Cotton Co. Ltd.

1. Air Analysis

1.1 Air Analysis Info

Sample site	Yu Chang (Myanmar) Spray Cotton Co. Ltd	Sample I.D.	AS0921-03
Location (Township)	Hmawbi	Method	HAZ-SCANNER™ Model-EPAS
		Station height (elevation)	Ground
Location (Region / state)	Yangon	Latitude	17° 5'17.33"N
		Longitude	96° 3'27.14"E
		log on time (Date, Time)	2.9.2021(09:30 AM)
Air Monitoring Date	2.9.2021	log off time (Date, Time)	3.9.2021 (09:30 AM)
		Logging Duration (hours)	24 hours

Figure 1.1 Air Sample Point

1.2. Air sampling result

The findings of the air quality sampling monitored data and the applicable national standards used for comparison for the project are shown in the following Table and air result data report is described in Appendix B.

Table - Air Quality Result

No	Parameters	Results		Avg. Period	Guideline value (NEQG)	Averaging Period	Remarks
		Observed value	Converted value				
1	Nitrogen dioxide NO_2	27 ppb	50.7(μg/m^3)	1-hour*	40 (μg/m^3) 200 (μg/m^3)	1-year 1-hour	
2	Ozone (O_3)	18 ppb	35.3(μg/m^3)	8-hour	100 (μg/m^3)	8-hour daily maximum	
3	Particulate matter PM_{10}	21.7 (μg/m^3)		24-hour	20 (μg/m^3) 50 (μg/m^3)	1-year 24-hour	
4	Particulate matter $PM_{2.5}$	10.9 (μg/m^3)		24-hour	10 (μg/m^3) 25 (μg/m^3)	1-year 24-hour	
5	Sulfur dioxide SO_2	1.8 ppb	4.7(μg/m^3)	24-hour	20 (μg/m^3) 500 (μg/m^3)	24-hour 10 minute	
6	Carbon dioxide CO_2	213 ppm		24-hour	-		
7	Carbon monoxide CO	1.6 ppb		24-hour	-		

* One hour in Max. Value of 24 hrs. period

2. Noise Level

The noise levels for the proposed site were measured by TES-52A Advanced Sound Level Meter.

TES-52A Advanced Sound Level Meter

Table - National Emission Quality Guideline (NEQG) for Noise Level

Receptor	**One Hour LAeq (dBA)a**	
	Daytime 07:00-22:00 (10:00-22:00 for Public holidays)	**Night time 22:00-07:00 (22:00-10:00 for Public holidays)**
Residential, institutional, educational	55	45
Industrial, commercial	70	70

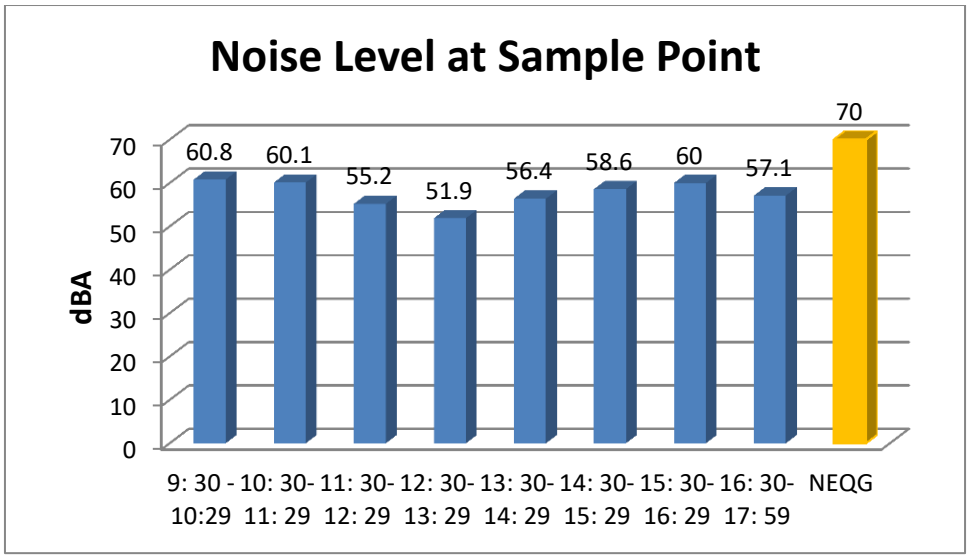
2.1. The location of Noise sample point of the Project

No.	Sample Name	Yu Chaung (Myanmar) Co., Ltd.		Location
		Latitude (N)	Longitude (E)	
1.	Noise Sample Point (NS)	17° 5'17.33"N	96° 3'27.14"E	In front of the factory building

2.2. Noise Level Result

Table - Average Values of Noise Level (dB) at the sampling point

Noise Sample Point	**Date/Time (2-9-2021)**	**Observed Noise Level (MeanValue) (dBA)**
NS	9: 30 -10:29	60.8
	10: 30-11: 29	60.1
	11: 30-12: 29	55.2
	12: 30-13: 29	51.9
	13: 30-14: 29	56.4
	14: 30-15: 29	58.6
	15: 30-16: 29	60.0
	16: 30-17: 59	57.1



Main | Preferences | Header | Data | Report

ENVIRONMENTAL REPORT

Session location:
Session site:
Organizational affiliation: EDC
Session environment: Outdoors
Session type: Ambient
Session environment:
Session Description:
Logger Serial Number: 915085
Logging began on: 9/2/2021 9:30 AM
Logging stopped on: 9/3/2021 9:30 AM
Data uploaded on: 9/4/2021 11:40:00 AM
Samples were averaged and saved every: Minute
Report was averaged: 10 Minute
Total samples in this upload: 145

SENSOR	UNITS	LO LIM	HI LIM

* indicates no limit was set

City; Hmawbi
State; Yangon
Country; Myanmar

Environmental Report

Start: 9/2/2021 9:30 AM End: 9/3/2021 9:30 AM

Collected by:

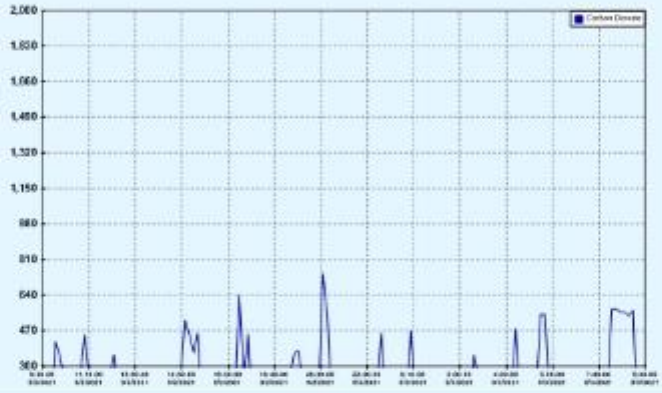
Logger ID 915085 Record Count 145

Carbon Dioxide

Range: 0 to 5000 ppm

801

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
15	213.7	741	158.0	ppm		0.00%		0.00%

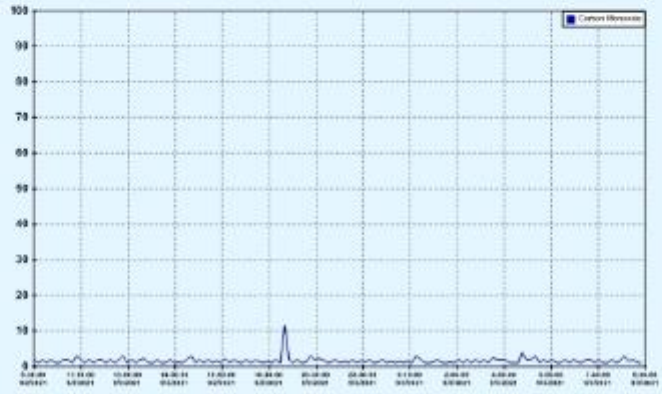


Carbon Monoxide

Range: 0 to 10000 ppb

905

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
1	1.625	11.5	1.02	ppb		0.00%		0.00%



Environmental Report

Start: 9/2/2021 9:30 AM End: 9/3/2021 9:30 AM

Collected by:

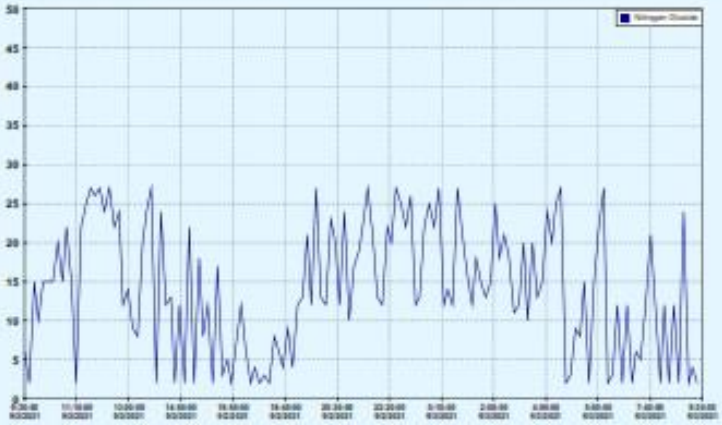
Logger ID 915085 Record Count 145

Sensor ID

Nitrogen Dioxide

Range: 0 to 5000 ppb

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
2	14.00	27	8.15	ppb		0.00%		0.00%

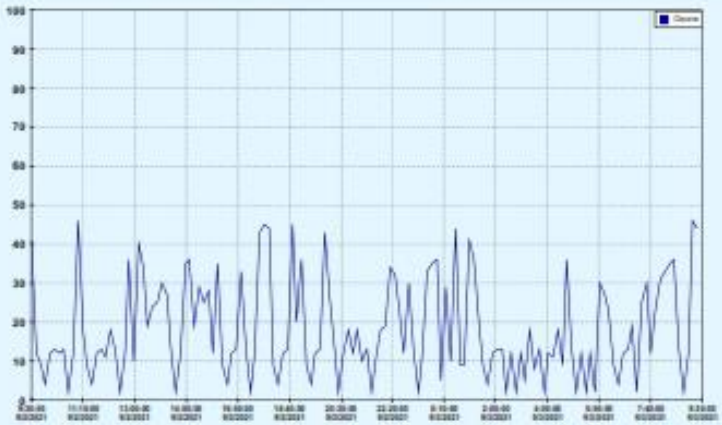


Sensor ID

Ozone

Range: 0 to 150 ppb

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
2	18.00	49	12.73	ppb		0.00%		0.00%



Environmental Report

Start: 9/2/2021 9:30 AM End: 9/3/2021 9:30 AM

Collected by:

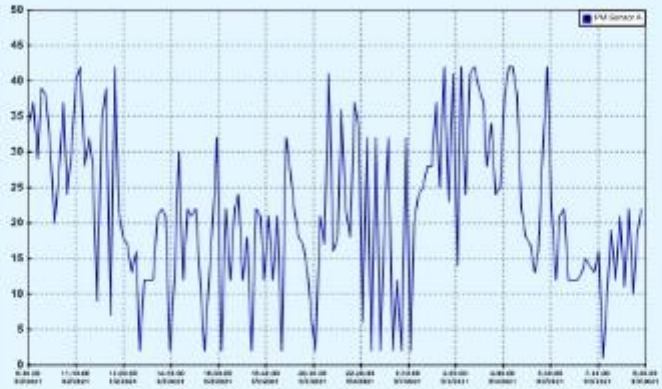
Logger ID 915085 Record Count 145

PM Sensor A

Range: 0 to 5000 uG/m3

2312

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
1	21.75	42	11.38	uG/m3		0.00%		0.00%

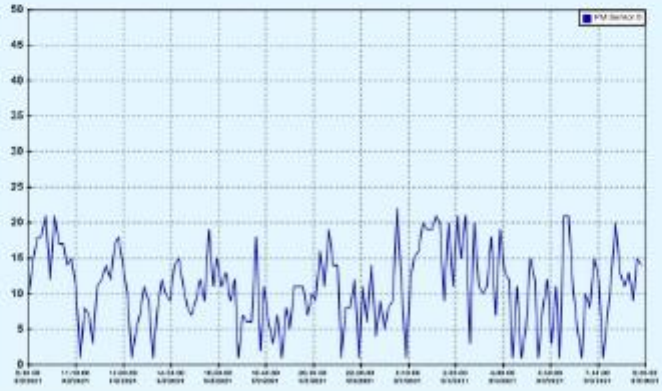


PM Sensor B

Range: 0 to 5000 uG/m3

2313

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
1	10.96	22	5.64	uG/m3		0.00%		0.00%



Environmental Report

Start: 9/2/2021 9:30 AM End: 9/3/2021 9:30 AM

Collected by:

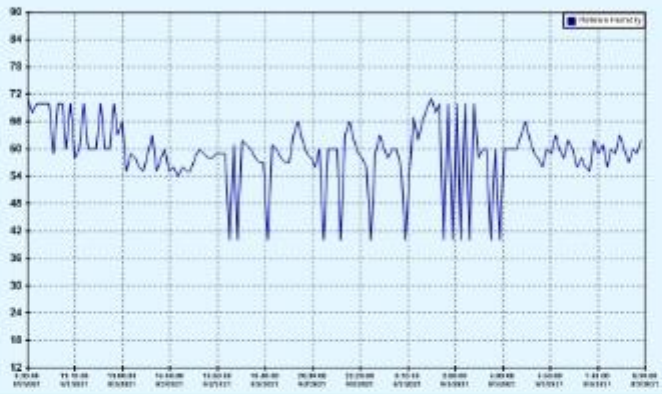
Logger ID 915085 Record Count 145

Relative Humidity

Range: 0 to 100 %

501

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
40	59.18	71	7.44	%		0.00%		0.00%

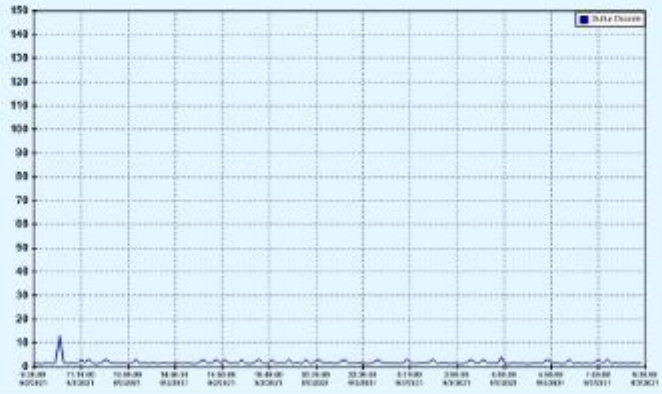


Sulfur Dioxide

Range: 0 to 5000 ppb

2101

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
1	1.830	13	1.17	ppb		0.00%		0.00%



Environmental Report

Start: 9/2/2021 9:30 AM End: 9/3/2021 9:30 AM

Collected by:

Logger ID 915085 Record Count 145

TEMP

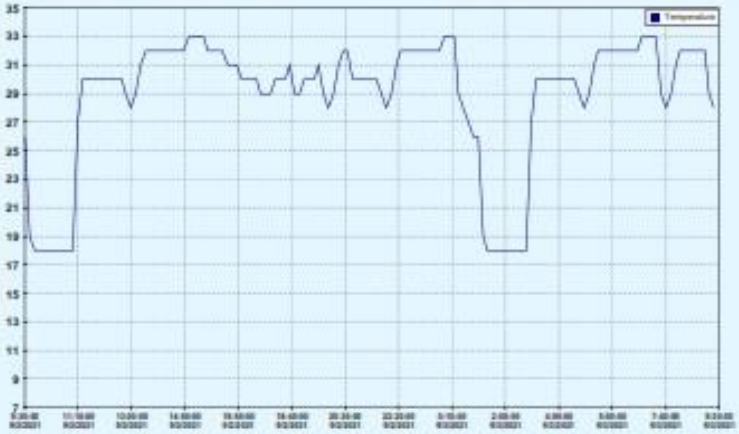
Temperature

TEMP

Sensor ID

Range: -20 to 60 Deg. C

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
18	29.00	33	4.59	Deg. C		0.00%		0.00%



W. DIR.

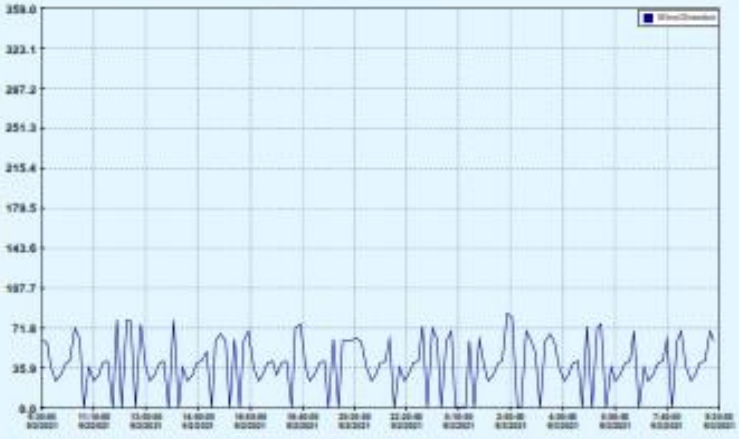
Wind Direction

W. DIR.

Sensor ID

Range: 0 to 359 Deg.

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
0	39.00	85	24.31	Deg.		0.00%		0.00%



Environmental Report

Start: 9/2/2021 9:30 AM End: 9/3/2021 9:30 AM

Collected by:

Logger ID 915085 Record Count 145

W. SPD. **Wind Speed** W. SPD. Sensor ID

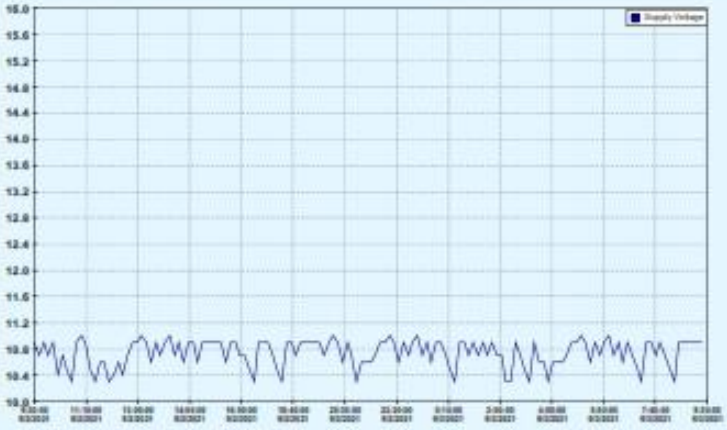
Range: 0 to 100 mph

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
0	4.30	8.3	2.33	mph		0.00%		0.00%

Batt. **Supply Voltage** Batt. Sensor ID

Range: 10 to 16 V

Min	Ave	Max	Std. Dev		Hi Limit	% Above Hi	Lo Limit	% Below Lo
10.3	10.70	11	0.20	V		0.00%		0.00%



Main | Preferences | Header | Data | Report

Environmental Report

Record Cnt 145

Start Date 9/2/2021 9:30:00 AM

145

End Date 9/3/2021 9:30:00 AM

	CO2 ppm	CO ppb	NO2 ppb	O3 ppb	PMA uG/m3	PMB uG/m3	RH %	SO2 ppb	TmpC Deg. C	VOCS ppb	WDir Deg.	WSpd mph	Pwr V
Ave	**213.765**	**1.62586**	**13.9931**	**18.3034**	**21.7586**	**10.9655**	**59.1862**	**1.83034**	**28.8068**	**0**	**39.0758**	**4.27379**	**10.7379**
Max	741	11.5	27	49	42	22	71	13	33	0	85	8.3	11
Min	15	1	2	2	1	1	40	1	18	0	0	0	10.3
EPAS Header 266148	**213.765**	**1.62586**	**13.9931**	**18.3034**	**21.7586**	**10.9655**	**59.1862**	**1.83034**	**28.8068**	**0**	**39.0758**	**4.27379**	**10.7379**
	741	11.5	27	49	42	22	71	13	33	0	85	8.3	11
	15	1	2	2	1	1	40	1	18	0	0	0	10.3
Daily Thu, Sep 2, 2021	**193.636**	**1.65681**	**14.4545**	**19.0909**	**20.7613**	**10.3977**	**59.4318**	**1.89090**	**29.1022**	**0**	**39.4204**	**4.25568**	**10.75**
	741	11.5	27	49	42	22	71	13	33	0	79	8.3	11
	15	1	2	2	2	1	40	1	18	0	0	0	10.3
Ave Period 10 9/2/2021 9:30:00	**111**	**1**	**10**	**49**	**28**	**19**	**69**	**1**	**26**	**0**	**61**	**2.3**	**10.7**
	111	1	10	49	28	19	69	1	26	0	61	2.3	10.7
	111	1	10	49	28	19	69	1	26	0	61	2.3	10.7
9/2/21	111	1	10	49	28	19	69	1	26	0	61	2.3	10.7
Ave Period 10 9/2/2021 9:40:00	**40**	**2**	**6**	**41**	**34**	**10**	**71**	**2**	**26**	**0**	**60**	**7.6**	**10.9**
	40	2	6	41	34	10	71	2	26	0	60	7.6	10.9
	40	2	6	41	34	10	71	2	26	0	60	7.6	10.9
9/2/21	40	2	6	41	34	10	71	2	26	0	60	7.6	10.9
Ave Period 10 9/2/2021 9:50:00	**50**	**1**	**2**	**12**	**37**	**15**	**68**	**1**	**19**	**0**	**59**	**5.2**	**10.7**
	50	1	2	12	37	15	68	1	19	0	59	5.2	10.7
	50	1	2	12	37	15	68	1	19	0	59	5.2	10.7
9/2/21	50	1	2	12	37	15	68	1	19	0	59	5.2	10.7
Ave Period 10 9/2/2021 10:00:0	**60**	**2**	**15**	**9**	**29**	**18**	**70**	**1.2**	**18**	**0**	**37**	**2.3**	**10.9**
	60	2	15	9	29	18	70	1.2	18	0	37	2.3	10.9
	60	2	15	9	29	18	70	1.2	18	0	37	2.3	10.9
9/2/21	60	2	15	9	29	18	70	1.2	18	0	37	2.3	10.9