ENVIRONMENTAL MANAGEMENT PLAN FOR

JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED



Prepare for;

Jessie Myanmar Apparel Manufacturing Company Limited

Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar

စီမံကိန်းအဆိုပြုသူ၏ ကတိကဝတ်အတည်ပြုဝန်ခံချက်

၂၀၂၂ခုနှစ်အတွင်းတွင် Jessie Myanmar Apparel Manufacturing Company Limited ၏ အဝတ်အထည်အမျိုးမျိူးချုပ်လုပ်ခြင်းစက်ရုံအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် (Environmental Management Plan) ကို Jessie Myanmar Apparel Manufacturing Company Limited ၏စက်ရုံတာဝန်ရှိခေါင်းဆောင်များမှ တာဝန်ယူပြင်ဆင်ခဲ့ပါသည်။ စီမံကိန်းအဆိုပြုသူအနေဖြင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan) နှင့်ပတ်သတ်၍ အောက်ပါ အချက်အလက်များ မှန်ကန်ကြောင်းနှင့် တည်ဆဲဥပဒေ လုပ်ထုံးလုပ်နည်းများ၊ နည်းဥပဒေများအတိုင်း လိုက်နာဆောင်ရွက်သွားမည်ဖြစ်ကြောင်း ကတိကဝတ်အတည်ပြုဝန်ခံပါသည်။

- (က) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာသည် တိကျခိုင်မာ၍ လုပ်ငန်းဆိုင်ရာအချက် အလက်များသည် မှန်ကန်ပါသည်။
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- (ဂ) လုပ်ငန်းလည်ပတ်ဆောင်ရွက်နေသည့်ကာလအတွင်း အတည်ပြုထားသည့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်အား တိုးတက်နေသည့် နည်းညာများ၊ စနစ်များနှင့် လုပ်ငန်းလိုအပ်ချက် အပေါ်မူတည်၍ပိုမိုကောင်းမွန်သည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ဖြစ်စေရန်အတွက် ပြင်ဆင်ဖြည့်စွက်ရန် ညွှန်ကြားချက်များရှိလာပါက လိုက်နာဆောင်ရွက်သွားပါမည်။
- (ယ) စီမံကိန်းအဆိုပြုသူအနေဖြင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အားပြင်ဆင်ဖြည့်စွက်လိုပါက တင်ပြအတည်ပြုချက်ရယူ၍ ပြင်ဆင်ဆောင်ရွက်သွားပါမည်။

(င) စီမံကိန်းလုပ်ငန်းများပြီးစီး၍ စီမံကိန်းလုပ်ငန်းပိတ်သိမ်းချိန်တွင် လူမှုဝန်းကျင်အပေါ် ထိခိုက်မှုအနည်းဆုံးဖြစ်စေရန် ဆောင်ရွက်မည်ဖြစ်ပြီး၊ ထိခိုက်မှုများရှိလာပါက ထိခိုက်မှု အနည်းဆုံးဖြစ်စေမည့်အစီအမံများ၊ လူမှုစီးပွားအကျိုးပြုပူးပေါင်းဆောင်ရွက်ချက်အစီအမံများ ချမှတ်ဆောင်ရွက်သွားပါမည်။

(စီမံကိန်းအဆိုပြုသူ)

အစီရင်ခံစာရေးဆွဲသူ(တတိယအဖွဲ့အစည်း)၏ ကတိကဝတ်အတည်ပြုဝန်ခံချက်

Jessie Apparel Manufacturing Company Limited Myanmar ဤပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် Environmental Management Plan (EMP) ကို Environment ဆောင်ရွက်ခဲ့ပါသည်။ Limited Services Collection Company (ESC) မှ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) ကို EIA လုပ်ထုံးလုပ်နည်း အပိုဒ် ၇၆ မှ ၈၂ ပါ သတ်မှတ်ချက်များနှင့်အညီ ရေးဆွဲခဲ့ပါသည်။ ဤပတ်ဝန်းကျင်ဆိုင်ရာစီမံခန့်ခွဲမှုအစီအစဉ်အား ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံး လုပ်နည်း (အပိုဒ် 76-82) ၏ သတ်မှတ်ချက်များနှင့်အညီ ဂရုစိုက်မှုနှင့် ကျိုးကြောင်းဆီလျော်သော ကျွမ်းကျင်မှု၊ လုံ့လဝီရိယတို့ဖြင့် လုပ်ဆောင်ထားပါကြောင်းကတိကဝတ်အတည်ပြုဝန်ခံပါသည်။ ။

- (က) ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်းအပါအဝင် သက်ဆိုင်ရာ တည်ဆဲဥပဒေ လုပ်ထုံးလုပ်နည်းများ၊ နည်းဥပဒေများအတိုင်း တိကျစွာလိုက်နာ၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အစီရင်ခံစာကိုရေးဆွဲထားပါသည်။
- (ခ) လုပ်ငန်းလည်ပတ်ဆောင်ရွက်နေသည့်ကာလအတွင်း အတည်ပြုထားသည့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်အား တိုးတက်နေသည့် နည်းညာများ၊ စနစ်များနှင့် လုပ်ငန်းလိုအပ်ချက် အပေါ်မူတည်၍ပိုမိုကောင်းမွန်သည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ဖြစ်စေရန်အတွက် ပြင်ဆင်ဖြည့်စွက်ရန် ညွှန်ကြားချက်များရှိလာပါက လိုက်နာဆောင်ရွက်သွားပါမည်။

(ဂ) စီမံကိန်းအဆိုပြုသူမှဖြင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အားပြင်ဆင်ဖြည့်စွက်လိုပါက တင်ပြအတည်ပြုချက်ရယူ၍ ပြင်ဆင်ဆောင်ရွက်သွားပါမည်။

အစီရင်ခံစာရေးဆွဲသူ(တတိယအဖွဲ့အစည်း)

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LISTS OF ABBREVIATIONS

BOD Biochemical Oxygen Demand

CFM Cubic Feet per Minute

CMP Cutting, Making and Packaging

COD Chemical Oxygen Demand

dB Decibel

Dept Department

EMP Environmental Management Plan

HOD Head of Department

HR Human Resource

LBS Pound

MIC Myanmar Investment Commission

NSRs Noise Sensitive Receivers

NEQG National Emitting Quality Guideline

OSH Occupational Safety and Health

PPE Personal Protective Equipment

SLM Sound Level Meter

MEMs Mitigation Environment Measure

အနှစ်ချုပ်အစီအရင်ခံစာ

၁။ နိဒါန်း

သည် Jessie Myanmar Apparel Manufacturing Company Limited မြန်မာနိုင်ငံကုမ္ပဏီများအက်ဥပဒေအရ ဖွဲ့စည်းထားသော ပုဂ္ဂလိကကုမ္ပဏီလီမိတက်ဖြစ်သည်။ Jessie Myanmar Apparel Manufacturing Company Limited သည် မှတ်ပုံတင်အမှတ် (124418658 ၁၂၄၄၁၈၆၅၈) ဖြင့် မြန်မာနိုင်ငံရင်းနှီးမြုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှု ဦးစီးဌာန (DICA) တွင် ရရှိပြီးဖြစ်ပါသည်။ Jessie Myanmar Apparel Manufacturing Company Limited ၏ ရင်းနှီးမြှုပ်နှံမှု အမျိုးအစားမှာ နိုင်ငံခြား ရင်းနှီးမြှုပ်နှံမှု လုပ်ငန်းဖြစ်ပြီး စက်ရုံသည် CMP ထုတ်လုပ်မှု အစီအစဉ်ဖြင့်အထည်များ ထုတ်လုပ်ကာ MIC ခွင့်ပြုမိန့် ရရှိထားပြီး ဖြစ်သည်။ ကုမ္ပဏီသည် မြေကွက်အမှတ် (၁၃၀)၊ မြေတိုင်းအကွက် အမှတ် (၂)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး၊ မြန်မာနိုင်ငံတွင် တည်ရှိသည်။ စီမံကိန်းပိုင်ရှင်သည် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဦးစီးဌာန (ရန်ကုန်) ထံမှ သဘောထားမှတ်ချက်ရယူရန် သဘာဝပတ်ဝန်းကျင်နှင့် လူမှုစီးပွား ထိခိုက်မှုများအား တားဆီးရန်နှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေး လုပ်ငန်းစဉ်များ ဆောင်ရွက်ပေးရန် လျှောက်ထားခဲ့ပါသည်။ သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဦးစီးဌာန (ရန်ကုန်) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ရေးဆွဲတင်သွင်းရန် အကြောင်းပြန်စာတွင် မှတ်ချက်ပြုခဲ့သည်။ ထို့ကြောင့် Jessie Myanmar Apparel Manufacturing Company Limited အတွက် ဤပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် Environmental Management Plan (EMP) ကို Environment Services Collection Company Limited (ESC) မှ ဆောင်ရွက်ခဲ့ပါသည်။

၂။ ကတိကဝတ်ပြုခြင်း

စီမံကိန်းအဆိုပြုသူအနေဖြင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan) နှင့်ပတ်သတ်၍ အောက်ပါအချက်အလက်များမှန်ကန်ကြောင်းနှင့် တည်ဆဲဥပဒေ လုပ်ထုံးလုပ်နည်းများ၊ နည်းဥပဒေများအတိုင်း လိုက်နာဆောင်ရွက်သွားမည် ဖြစ်ကြောင်း ကတိကဝတ်အတည်ပြုပါသည်။

- (က) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာသည် တိကျခိုင်မာ၍ လုပ်ငန်းဆိုင်ရာအချက် အလက်များသည် မှန်ကန်ပါသည်။
- (ခ) ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်းအပါအဝင် သက်ဆိုင်ရာ တည်ဆဲဥပဒေ လုပ်ထုံးလုပ်နည်းများ၊ နည်းဥပဒေများအတိုင်း တိကျစွာလိုက်နာ၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အစီရင်ခံစာကိုရေးဆွဲထားပါသည်။
- (ဂ) စီမံကိန်းသည် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာပါ ကတိကဝတ်၊ ပတ်ဝန်းကျင် ထိခိုက်မှုလျော့ချရေးလုပ်ငန်းများနှင့်အစီအစဉ်များကို အပြည့်အဝအစဉ်အမြဲ လိုက်နာဆောင်ရွက် မည်ဖြစ်ပါသည်။
- (ဃ) လုပ်ငန်းလည်ပတ်ဆောင်ရွက်နေသည့်ကာလအတွင်း အတည်ပြုထားသည့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်အား တိုးတက်နေသည့် နည်းညာများ၊ စနစ်များနှင့် လုပ်ငန်းလိုအပ်ချက် အပေါ်မူတည်၍ပိုမိုကောင်းမွန်သည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ဖြစ်စေရန်အတွက် ပြင်ဆင်ဖြည့်စွက်ရန် ညွန်ကြားချက်များရှိလာပါက လိုက်နာဆောင်ရွက်သွားပါမည်။
- (င) စီမံကိန်းအဆိုပြုသူအနေဖြင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အားပြင်ဆင်ဖြည့်စွက်လိုပါက တင်ပြအတည်ပြုချက်ရယူ၍ ပြင်ဆင်ဆောင်ရွက်သွားပါမည်။

(စ) စီမံကိန်းလုပ်ငန်းများပြီးစီး၍ စီမံကိန်းလုပ်ငန်းပိတ်သိမ်းချိန်တွင် လူမှုဝန်းကျင်အပေါ် ထိခိုက်မှုအနည်းဆုံးဖြစ်စေရန် ဆောင်ရွက်မည်ဖြစ်ပြီး၊ ထိခိုက်မှုများရှိလာပါက ထိခိုက်မှု အနည်းဆုံးဖြစ်စေမည့်အစီအမံများ၊ လူမှုစီးပွားအကျိုးပြုပူးပေါင်းဆောင်ရွက်ချက်အစီအမံများ ချမှတ်ဆောင်ရွက်သွားပါမည်။

၃။ ဥပဒေသုံးသပ်ချက် ဥပဒေလိုအပ်ချက်များ

Jessie Myanmar Apparel Manufacturing Company Limited မှ ဥပဒေ၊ နည်းဥပဒေများနှင့်

လုပ်ထုံးလုပ်နည်းများ မှာ အောက်ပါအတိုင်းဖြစ်သည်။

- ၁. မြန်မာ့ပတ်ဝန်းကျင်ဆိုင်ရာမူဝါဒ
- ၂. သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဥပဒေ (၂၀၁၂)၊
- ၃. သဘာဝပတ်ဝန်းကျင် ထိခိုက်မှု အကဲဖြတ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်းများ
- ၄. အလုပ်အကိုင်နှင့် ကျွမ်းကျင်မှုဖွံ့ဖြိုးတိုးတက်ရေးဥပဒေ (၂၀၁၃)၊
- ၅. စက်ရုံဥပဒေ (၁၉၅၁)၊
- ၆. အနည်းဆုံးအခကြေးငွေဥပဒေ (၂၀၁၃)၊
- ၇. မြန်မာနိုင်ငံမီးသတ်ဥပဒေ (၂၀၁၅)၊
- ၈. လုပ်ငန်းခွင်ဘေးကင်းရေးနှင့် ကျန်းမာရေးဥပဒေ (၂၀၁၉)
- ၉. အလုပ်သမားအဖွဲ့အစည်းဥပဒေ (၂၀၁၁)၊
- ၁၀. အလုပ်သမားရေးရာ အငြင်းပွားမှုဖြေရှင်းရေးဥပဒေ (၂၀၁၂)၊
- ၁၁. ခွင့်နှင့်အားလပ်ရက်အက်ဉပဒေ (၁၉၅၁)၊
- ၁၂. ဓာတုနှင့်ဆက်စပ်ပစ္စည်းများအန္တရာယ်တားဆီးကာကွယ်ရေးဥပဒေ (၂၀၁၃)၊
- ၁၃. ဆေးလိပ်နှင့် ဆေးရွက်ကြီး ထုတ်ကုန် သုံးစွဲမှု ထိန်းချုပ်ရေး ဥပဒေ (၂၀၀၆)၊

- ၁၄. အမျိုးသားပတ်ဝန်းကျင် အရည်အသွေး (ထုတ်လွှတ်ခြင်း) လမ်းညွှန်ချက်
- ၁၅. အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာမူဝါဒ (၂၀၁၉)၊
- ၁၆. လူမှုဖူလုံရေးဥပဒေ (၂၀၁၂)၊
- ၁၇. မြန်မာနိုင်ငံ အာမခံဥပဒေ ၁၉၉၃
- ၁၈. အလုပ်သမားလျော်ကြေးငွေအက်ဥပဒေ 1951
- ၁၉. ဘေးအန္တရာယ်ဆိုင်ရာစီမံခန့်ခွဲမှုဥပဒေ 2011
- ၂၀. ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးဥပဒေ (၂၀၁၈)၊
- ၂၁. လျှပ်စစ်ဥပဒေ (၂၀၁၄)၊
- ၂၂. အသေးစားစက်မှုလက်မှုလုပ်ငန်းမြှင့်တင်ရေးဥပဒေ
- ၂၃. မြန်မာနိုင်ငံကုမ္ပဏီများဥပဒေ (၂၀၀၇)၊
- ၂၄. ပြည်ထောင်စု အကောက်ခွန်ဥပဒေ (၂၀၀၇)၊
- ၂၅. ပြည်သူ့ကျန်းမာရေးဥပဒေ (၁၉၇၂)၊
- ၂၆။ ကူးစက်ရောဂါများ ကာကွယ်ထိန်းချုပ်ရေးဥပဒေ (၁၉၉၅)၊
- ၂၇. မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုဥပဒေ (၂၀၁၁) နည်းဥပဒေ (၂၀၀၃)၊ အသိပေးစာ အမှတ် (၂၀၀၃)၊
- ၂၈. သွင်းကုန်ထုတ်ကုန်ဥပေဒ (၂၀၁၂)

၄။ လုပ်ငန်းအကြောင်းအရာဖော်ပြချက်

Jessie Myanmar Apparel Manufacturing Company Limited သည် မြန်မာနိုင်ငံကုမ္ပဏီများအက်ဥပဒေအရ ဖွဲ့စည်းထားသော ပုဂ္ဂလိကကုမ္ပဏီလီမိတက်ဖြစ်သည်။ Jessie Myanmar Apparel Manufacturing Company Limited သည် မှတ်ပုံတင်အမှတ် (၁၂၄၄၁၈၆၅၈) ဖြင့် မြန်မာနိုင်ငံရင်းနှီးမြုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှု ဦးစီးဌာန (DICA) တွင် ရရှိပြီးဖြစ်ပါသည်။ မြေကွက်အမှတ် (၁၃၀)၊ မြေတိုင်းအကွက် အမှတ် (၂)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး၊ မြန်မာနိုင်ငံတွင်တည်ဆောက်လုပ်ကိုင်လည်ပတ်လျက်ရှိသည်။

လေား (က) Jessie Myanmar Apparel Manufacturing Company Limited ၏ စက်ရုံဆိုင်ရာအချက်အလက်

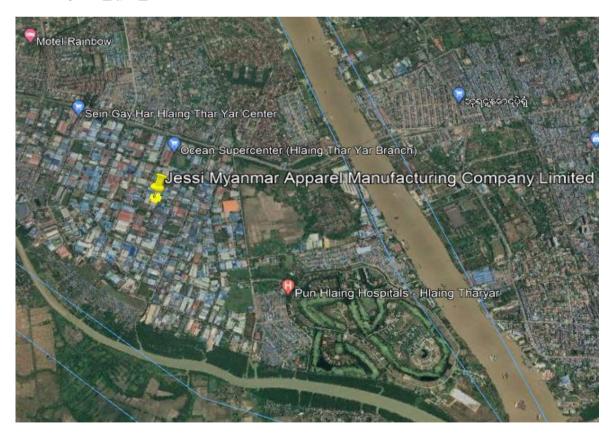
စက်ရုံဆိုင်ရာအချက်အလက်	ဖော်ပြချက်
ကုမ္ပဏီအမည်	Jessie Myanmar Apparel Manufacturing Company Limited
ပရောဂျက်အမျိုးအစား	အဝတ်အထည်အမျိုးမျိုးချူပ်လုပ်ခြင်းလုပ်ငန်း
တည်နေရာ	မြေကွက်အမှတ် (၁၃၀)၊ မြေတိုင်းအကွက် အမှတ် (၂)၊ စက်မှုဇုန်၊
	လှိုင်သာယာမြို့နယ်၊
ရင်းနှီးမြှုပ်နှံမှု အမျိုးအစား	နိုင်ငံခြားရင်းနှီးမြုပ်နှံမှု
ရင်းနှီးမြှုပ်နှံမှုပမာဏနှင့် ကာလ	ရင်းနှီးမြုပ်နှံမှု၂၀ နှစ် အတွက်အမေရိကန်ဒေါ်လာ ၀.၄၀၉သန်း
စီမံကိန်းစတင်သည့်ကာလ	၂၀၂၀ ခုနှစ်
စီမံကိန်းဧရိယာ	(၁.၁၉၅)ဧက
ပိုင်ရှင်အမည်	Mr. Lin Bo (EA. 7897443)
	Ms. Tan Dan (EA. 92391281)
ရုံးလိပ်စာ	မြေကွက်အမှတ် (၁၃၀)၊ မြေတိုင်းအကွက် အမှတ် (၂)၊ စက်မှုဇုန်၊
	လှိုင်သာယာမြို့နယ်၊

လေား (ခ) Jessie Myanmar Apparel Manufacturing Company Limited ၏ စီမံကိန်းပိုင်ရှင်၏အချက်အလက်

စီမံကိန်းပိုင်ရှင်၏အချက်အလက်	ဖော်ပြချက်
ပိုင်ရှင်အမည်	Mr. Lin Bo (EA. 7897443)
	Ms. Tan Dan (EA. 92391281)

နိုင်ငံသား	တရုတ်နိုင်ငံသား
ရာထူး	ဒါရိုက်တာ
ရုံးလိပ်စာ	မြေကွက်အမှတ် (၁၃၀)၊ မြေတိုင်းအကွက် အမှတ် (၂)၊ စက်မှုဇုန်၊
မျိုင်ပေမှာ	လှိုင်သာယာမြို့နယ်၊
ဆက်သွယ်ရန်ဖုန်းနံပါတ်	ဦးဇော်ဇင်အောင် 09- 890092014/
	emp.reporting.to.ecd@gmail.com

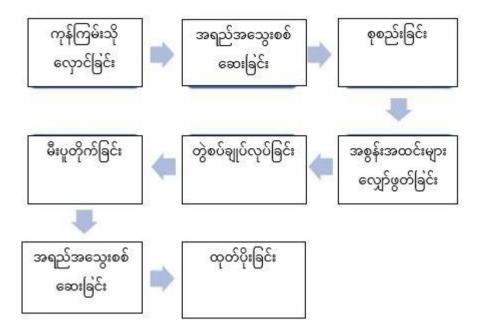
Jessie Myanmar Apparel Manufacturing Company Limited သည် မြေကွက်အမှတ် (၁၃၀)၊ မြေတိုင်းအကွက် အမှတ် (၂)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး၊ မြန်မာနိုင်ငံတွင် တည်ရှိသည်။ စီမံကိန်းဧရိယာတွင် ရုံးခန်း၊ စက်ရုံ၊ လုံခြုံရေးရုံးခန်း၊ ကုန်ကြမ်းသိုလှောင်ရာနေရာ၊ စားသောက်ဆိုင်နှင့် ကုန်ပစ္စည်းသိုလှောင်ရာနေရာတို့ ပါဝင်သည်။ စက်ရုံသည် မြောက်လတ္တီကျု 16°51′3.66″N နှင့် လောင်ဂျီကျု 96° 4′33.66″E တွင် တည်ရှိသည်။





ပုံ က။ Jessie Myanmar Apparel Manufacturing Company Limited ၏တည်နေရာပြမြေပုံ

စက်ရုံသည် CMP ထုတ်လုပ်မှု အစီအစဉ်ဖြင့် အဝတ်အထည်များကို ထုတ်လုပ်သည်။ ကုန်ပစ္စည်း အများစုကို တင်ပို့သည်။ ထုတ်လုပ်မှုလုပ်ငန်းစဉ်များကို အောက်ပါ ပုံတွင် ဖော်ပြထားပါသည်။ ပင်မထုတ်လုပ်မှုအစီအစဉ်သည် ကုန်ကြမ်းပစ္စည်းများ သိုလှောင်ခြင်း၊ စစ်ဆေးခြင်း၊ ဖြတ်တောက်ခြင်း၊ အစွန်းအထင်းများလျှော်ဖွတ်ခြင်း၊ တွဲစပ်ချုပ်ခြင်းနှင့် အရည်အသွေးစစ်ဆေးခြင်း၊ မီးပူတိုက်ခြင်းနှင့် ထုပ်ပိုးခြင်းတို့ဖြစ်သည်။ ထုတ်လုပ်မှု လုပ်ငန်းစဉ်သည် CMP စက်မှုလုပ်ငန်း၏ အမှတ်တံဆိပ်တစ်ခုဖြစ်သည့် လုပ်သားအင်အားကို အလေးထားပါသည်။ ထုတ်လုပ်မှု လုပ်ငန်းစဉ်သည် တွိုင်လာမှ ဓာတ်ငွေ့ အနည်းငယ် ထုတ်လွှတ်မှုသာရှိပြီး အရည်ညစ်ညမ်းခြင်း မရှိပေ။ အစိုင်အခဲ စွန့်ပစ်ပစ္စည်း ထုတ်လုပ်သည့် လုပ်ငန်းစဉ်တွင် အဓိကအားဖြင့် လုပ်ငန်းစဉ်အားလုံး ပါဝင်ပြီး အဆိုပါ အမှိုက်များကို လှိုင်သာယာမြို့နယ်၊ စည်ပင်သာဘာရေးကော်မတီ၏ ခွင့်ပြုချက်ဖြင့် သတ်မှတ်နေရာသို့ပိုဆောင်စွန့်ပစ်ရန်စီစဉ်ထားရှိသည်။



ပုံ (ခ) Jessie Myanmar Apparel Manufacturing Company Limited ၏ ထုတ်လုပ်မှုလုပ်ငန်းအဆင့်များ

၅။ လက်ရှိပတ်ဝန်းကျင်အခြေအနေ

Jessie Myanmar Apparel Manufacturing Company Limited ၏ ရေပေးဝေမှုသည် စက်ရေတွင်းနှင့် ကွန်ကရစ်ရေကန်တစ်ခု (1000gal) ဖြင့် သိုလှောင်ခြင်းမှ အဓိကရရှိပါသည်။ လက်ဆေးခြင်း၊ ရေချိုးခြင်း၊ သန့်စင်ခန်းနှင့် မီးဖိုချောင်သုံးရေများအတွက် အဝီစိရေတွင်းတစ်တွင်းမှ ရေကို ထုတ်ယူသုံးစွဲခြင်းဖြစ်ပြီး အစွန်းအထင်းများလှော်ဖွတ်ခြင်းသည် ထုတ်လုပ်မှုလုပ်ငန်းစဉ်တွင် ရေသုံးစွဲခြင်း လုပ်ငန်းစဉ်တွင် အသုံးပြုမှုပါဝင်ပါသည်။ စက်ရေတွင်းမှ ရေ၏ နေ့စဉ်အသုံးပြုမှုမှာ (၄၀၀၀) ဂါလံနှင့် နှစ်စဉ်အသုံးပြုမှုမှာ (၁,၄၀၀,၀၀၀) ဂါလံဖြစ်သည်။ ပိုက်တွင်းရေနမူနာကို ISO Tech ဓာတ်ခွဲခန်းတွင် စုဆောင်းပြီး ခွဲခြမ်းစိတ်ဖြာသည်။ ရေတွင် အရောင်နှင့် အနံ့မရှိပါ။ ရေ၏ pH သည် 6.7 ဖြစ်ပြီး WHO မှ လက်ခံနိုင်သော သောက်သုံးရေတန်ဖိုး 6-9 ကန့်သတ်ချက်အတွင်း ရှိပါသည်။. သံဓာတ် (0.22, mg/l) သည် လက်ခံနိုင်သော ကန့်သတ်ချက် 0.3 mg/l (WHO) သောက်ရေ၏ လမ်းညွှန်ချက်ထက် ကျော်လွန်နေပါသည်။ စက်ရုံတွင် ဝန်ထမ်းများ၏သောက်ရေအတွက် သောက်ရေသန့်စုနစ် တပ်ဆင်ထားရှိသည်။

ရေကို ရေတွင်းတစ်တွင်းမှ ထုတ်ယူပြီး ဤရေကို လက်ဆေးခြင်းနှင့် အိမ်သာများတွင် အသုံးပြုသည်။ စက်ရုံတွင်၊ အဝတ်လျှော်စနစ်သည် လုပ်ငန်းဆောင်ရွက်မှုအဆင့်တွင်ပါဝင်သည်။ ထို့ကြောင့် စက်ရုံမှထွက်ရှိသော စွန့်ပစ်ရေများကို နမူနာအဖြစ် ကောက်ယူခဲ့သည်။ စွန့်ပစ်ရေဆိုးများသည် အိမ်သာများ၊ မီးဖိုချောင်နှင့် အလုပ်သမားအိမ်များမှ စွန့်ပစ်ရေများဖြစ်သည်။ ဤစွန့်ပစ်ရေများကို စက်ရုံလမ်းဘေးမြောင်းမှတဆင့် စွန့်ပစ်ပါတယ်။ စက်ရုံတွင် ရေဆိုးသန့်စင်ရေး စနစ်မရှိပါ။ မိလ္လာရေများကို YCDC မှ ၆ လတစ်ကြိမ် တစ်ကြိမ် ကောက်ခံစွန့်ပစ်ပါသည်။ ရေ၏ pH သည် 7.4 ဖြစ်သည်။ ရေမှ ဆိုင်းငံ့ထားသော အစိုင်အခဲများကို 32 mg/l ခန့်၊ ပျော်ဝင်နေသော အစိုင်အခဲ 40 mg/l ခန့်ကို တွေ့နိုင်ပါသည်။

စွန့်ပစ်ရေ၏ BOD နှင့် COD ရလဒ်သည် NEQEG ၏ လမ်းညွှန်ချက်အတွင်းတွင် 30 နှင့် 96 mg/l ခန့်ရှိသည်။

CO၊ CO2၊ NO2၊ SO2၊ O3၊ PM10 နှင့် PM2.5 ကို စက်ရုံ၏ သက်ရောက်ဧရိယာပရောဂျက်ဆိုက်တွင် တိုင်းတာသည်။ ဇယား ဂ။ လေထုအရည်အသွေး၏ရလဒ်

စဉ်	ကန့်သတ်ချက်များ	ရလဒ်မ	ျား ပျမ်းမျှ	ကာလ	လမ်းညွှန်တန်	ပျမ်းမျှကာလ
		တွေ့ရှိချက်	ယူနစ်ပြောင်းချ	-	ဖိုး (NEQEG)	
			က်			
Э	Nitrogen dioxide				$40 \; (\mu g/m^3)$	1-year
	NO ₂	54 ppb	$101.5(\mu g/m^3)$	1-hour*	$200 \ (\mu g/m^3)$	1-hour
J	Ozone (O ₃)	32 ppb	$62.7(\mu g/m^3)$	8-hour	$100 (\mu g/m^3)$	8-hour daily
						maximum
9	Particulate matter				$20 (\mu g/m^3)$	1-year
	PM_{10}	$23 \ (\mu g/m^3)$		24-hour	$50 (\mu g/m^3)$	24-hour
9	Particulate matter				$10 (\mu g/m^3)$	1-year
	PM _{2.5}	11 ($\mu g/m^3$)		24-hour	$25 \; (\mu g/m^3)$	24-hour
၅	Sulfur dioxide	2 ppb	$5.24(\mu g/m^3)$	24-hour	$20 (\mu g/m^3)$	24-hour
	SO_2				$500 (\mu g/m^3)$	10 minute

6	Carbon dioxide	240 ppm	24-hour		
	CO_2			-	
2	Carbon monoxide	2 ppb	24-hour		
	СО			-	

မြေဆီလွှာပျက်စီးခြင်းနှင့် စပ်လျဉ်းသည့် စီမံကိန်းမှ ဖြစ်နိုင်ခြေရှိသော ဆိုးကျိုးများ သည် အစောပိုင်း ပရောဂျက် တည်ဆောက်ရေး လုပ်ငန်းများတွင် ဖြစ်ပေါ်နိုင်သည်။ ထိုကဲ့သို့သော အကျိုးသက်ရောက်မှုများတွင် မြေဆီလွှာကို တူးဖော်ခြင်း၊ နေရာရွှေ့ပြောင်းခြင်း သို့မဟုတ် တင်သွင်းခြင်း၊ သိုလှောင်ခြင်း၊ ရောနှောခြင်း၊ စိုစွတ်ခြင်း၊ မြေဆီလွှာကျုံ့ခြင်းနှင့် ညစ်ညမ်းခြင်း၊ ဆီယိုစိမ့်ခြင်းနှင့် အနည်ထိုင်ခြင်းတို့ ပါဝင်သည်။ သို့သော် မြေဆီလွှာအပေါ် မျှော်မှန်းထားသော သက်ရောက်မှုများသည် စီမံကိန်းဝင်းအတွင်း အကန့်အသတ်ရှိသော ဧရိယာတွင်သာ ဖြစ်ပေါ်နိုင်သည်။

စမ်းသပ်မှုရလဒ်များအရ Jessie Myanmar Apparel Manufacturing Company Limited မှ ကောက်ယူရရှိသော pH တန်ဖိုးသည် အတန်အသင့်ရှိသော အယ်လ်ကာလီအခြေအနေများဖြစ်သည့် Jessie Myanmar Apparel Manufacturing Company Limited တွင်ဖြစ်သည်။ ဤအခြေအနေအောက်တွင်၊ အောက်ပါဖြစ်စဉ်များ ဖြစ်ပေါ် နိုင်သည်-

- ullet pH 7.0 အထက်တွင် သံ၊ မဂ္ဂနိစ်၊ ဇင့်၊ ကိုဘော့နှင့် ကြေးနီတို့ ရရှိမှု တိုးလာပါသည်။
- အမိုးနီးယား volatilization ဖြစ်နိုင်ခြေ တိုးလာသည်။
- ဖော့စဖရပ်နှင့် ဘိုရွန်များ ပထမဆုံးရရှိမှု တိုးလာသော်လည်း pH တန်ဖိုးများ ပိုမိုမြင့်မားသော ချို့ယွင်းမှုများ ဖြစ်ပေါ် နိုင်သည်။
- ullet မပျော်ဝင်နိုင်သော ကယ်လ်စီယမ်-ဖော့စဖိတ်များကို pH မြင့်မားစွာဖြင့် ဖွဲ့စည်းနိုင်သည်။
- ullet လျှပ်စစ်စီးကူးနိုင်မှုသည် ယေဘုယျအားဖြင့် မြင့်မားသော pH တန်ဖိုးများတွင် မြင့်မားသည်။

၆။သက်ရောက်မှု ဆန်းစစ်ခြင်းနှင့် ကုစားခြင်<u>း</u>

Jessie Myanmar Apparel Manufacturing Company Limited ၏ အဝတ်အထည်အမျိုးမျိုး ချူပ်လုပ်ခြင်းသည် လုပ်ငန်းအဆင့်ဆင့်ပေါ်မူတည်၍ သက်ရောက်မှုဆန်းစစ်ခြင်းနှင့် ကုစားခြင်းကို အောက်ဖော်ပြပါ ဇယား(ယ)နှင့် (င)တွင် ဖော်ပြထားပါသည်။ ဇယား (ဃ) ပတ်ဝန်းကျင်အပေါ် သက်ရောက်စေမည့် အကြောင်းအချက်များနှင့် သက်ရောက်မှုများ

စဉ်	လုပ်ငန်းစဉ်	သက်ရောက်မှုဖြစ်ပေါ်စေသည့်	သက်ရောက်မှု
		အကြောင်းအချက်	
Э	ကုန်ကြမ်း၊ ကုန်ချော	ကုန်ကြမ်းကုန်ချောပစ္စည်းများ	ထိခိုက်ပွန်းရှခြင်း
	ပစ္စည်းများ ကိုင်တွယ်	အတင်အချ ပြုလုပ်ခြင်း	အလေးအပင်မရာမှ
	ထိန်းသိမ်းခြင်း		ဒဏ်ဖြစ်ခြင်း၊
		ထုပ်ပိုးစွန့်ပစ်ခြင်း	အစိုင်အခဲစွန့်ပစ်ပစ္စည်း၊
J	ချည်ကြိုးများ	ချည်ကြိုးဖြတ်စက်	ထိခိုက်ပွန်းရှခြင်း
	ဖြတ်တောက်ခြင်း	အသုံးပြုခြင်း	အလေးအပင်မရာမှ
			ဒဏ်ဖြစ်ခြင်း၊
5	အပ်ချုပ်ခြင်းနှင့်	ချည်ဖြတ်တောက်မှု၏အပိုင်း	ထိခိုက်ပွန်းရှခြင်း၊
	ချုပ်ရိုးဇစ်တပ်ခြင်း	အစများ, အပ် နှင့် ထိတွေ့ခြင်း	စက်ယန္တရားအန္တရာယ်၊
			ဆူညံသံ၊
			အစိုင်အခဲ စွန့်ပစ်ပစ္စည်း၊
9	တံဆိပ်၊နံပါတ်များ	ချည်ဖြတ်တောက်မှု၏	ထိခိုက်ပွန်းရှခြင်း၊
	တပ်ဆင်ခြင်း	အပိုင်းအစများ၊ အပ်များ နှင့်	အစိုင်အခဲစွန့်ပစ်ပစ္စည်း
		ထိတွေ့ခြင်း	

	စစ်ဆေးခြင်း		
	ပြန်လည်ပြုပြင်ခြင်း		
၅	ထုပ်ပိုးခြင်းနှင့်	စက္ကူပုံးစွန့်ပစ်ခြင်း	အစိုင်အခဲစွန့်ပစ်ပစ္စည်း
	သိုလှောင်ခြင်း	အိတ်ခွံများစွန့်ပစ်ခြင်း	အစိုင်အခဲစွန့်ပစ်ပစ္စည်း
		ပစ္စည်းများအတင်အချ	အလေးအပင်မရာမှ
		ပြုလုပ်ခြင်း	ဒဏ်ဖြစ်ခြင်း၊
6	ကုန်ချောသိုလှောင်	ကုန်ချောပစ္စည်းများ	ထိခိုက်ပွန်းရှခြင်း
	သိမ်းဆည်းထားခြင်း	အတင်အချ ပြုလုပ်ခြင်း	အလေးအပင်မရာမှ
			ဒဏ်ဖြစ်ခြင်း၊

ဇယား (c) ကုစားရန် နည်းလမ်းများ

သက်ရောက်မှု	ရင်းမြစ်	ကုစားခြင်း
သက်ရောက်မှု မီးဘေးအန္တရာယ်	- စက်ရုံ၏တားမြစ်နယ်မြေအတွင်း ဆေးလိပ်သောက်ခြင်း။ - ဝန်ပိုလျှပ်စစ်ဓာတ်အားအသုံးပြု မှုကြောင့် ဝါယာရှော့ခ်ဖြစ်ခြင်း။ - မီးစက်မောင်းနှင်ရန်အတွက်	(၁)စက်ရုံဝင်းအတွင်းဆေးလိပ်သောက် ခြင်းကိုလုံးဝပိတ်ပင်တားမြစ် ခြင်း (၂)အရေးပေါ်ထွက်ပေါက်များကိုရှင်းလင်းစွာ ဖော်ပြခြင်း (၃)ထွက်ပေါက်လမ်းများကိုအမြဲသန့်ရှင်း အောင်ထားခြင်း (၄)မီးသတ်ဆေးဘူးများကို ပုံမှန်စစ်ဆေး၊ ဖြည့်တင်းခြင်း
	ဒီဇယ်သိုလှောင်မှု	(၅)မီးငြိမ်းမှု ဧာတ်တိုက်လေ့ကျင့်ခန်းများ ပုံမှန်ပြုလုပ်ခြင်း

		(၁) ပုံမှန်သန့်ရှင်းရေးလုပ်ရန်
အစိုင်အခဲစွန့်ပစ် ပစ္စည်း	- ချည်ကြိုးအပိုင်းအစများ ဖြတ်တောက်မှုအပိုင်းအစများ၊ - ထုပ်ပိုးစွန့်ပစ်ပစ္စည်း - ပလပ်စတစ်အမှိုက်များ - အထွေထွေအမှိုက်များ	(၂)အမှိုက်အိတ်များဖြင့် နိုင်လွန်အထည် စွန့်ပစ်ပစ္စည်းထုပ်ပိုး ထားခြင်း (၃)စွန့်ပစ်အိတ်များကိုစနစ်တကျသိုလှောင် ခြင်း (၄)စွန့်ပစ်ပစ္စည်းစုဆောင်းသူကိုပုံမှန်ခေါ်ယူ ခြင်း (၅)အမှိုက်ပုံးများလုံလောက်စွာထားခြင်း
ထိခိုက်နိုင်မှု	-ကုန်ကြမ်း၊ကုန်ချော ပစ္စည်းများ အတင်အချပြုလုပ်ခြင်း - အလေးချိန်ပိုသော ပစ္စည်းများ သယ်ဆောင်ခြင်းမှထိခိုက်ခြင်း - ဖြတ်စက်ကိုင်တွယ်အသုံးပြု ခြင်း၊ အပ်နှင့်ထိခိုက်မိခြင်း	(၁) ကုန်ပစ္စည်းများ အလွယ်တကူမရန် အထောက်အကူပြု သယ်ဆောင်ကိရိယာ အသုံးပြုခြင်း (၂) ထိခိုက်ပွန်းရှနိုင်သည့် ပစ္စည်းများ
ဆူညံသံ	- မီးစက်နှင့်စက်များ မောင်းနှင် အသုံးပြုခြင်း	(၁) စက်ပစ္စည်းများအား ပုံမှန်ပြုပြင် ထိန်းသိမ်းမှုများ ပြုလုပ်ခြင်း (၂) မီးစက်အသုံးပြုခြင်း နေရာတွင် အသံလုံ အကာအကွယ် တပ်ဆင်ခြင်း
စက်ယန္တရား အန္တရာယ်	- ရေနွေးငွေ့ဖြင့် ပေါင်းခံစက် အသုံးပြုခြင်း - ခေါက်စက်ကိုအသုံးပြုခြင်း	(၁) လုပ်ငန်းခွင် အန္တရာယ် ကာကွယ်ရေး ပစ္စည်းများ (မျက်မှန်၊ လက်အိတ်၊ နားကြပ်) တို့ကို မပျက်မကွက် ဝတ်ဆင်ခြင်း

(၂) စက်ပေါ်တွင် အမှိုက်၊ ဖုန်၊ ဆီတင်ကျန်မှုရှိ/ မရှိ စစ်ဆေးပြီး ပုံမှန် သန့်ရှင်းခြင်း (၃) ဆီယိုစိမ့်မှုရှိ/ မရှိ စစ်ဆေးပြီး လိုအပ်သော ဆီပမာဏဖြည့်ခြင်း (၄) စက်ယန္တရားများ လည်ပတ်ရာ နေရာတွင် မီးလောင်ပေါက်ကွဲနိုင်သော ပစ္စည်းများ မရှိ အောင် ကြိုတင်ရှင်းလင်းခြင်း (၅) စက်ယန္တရားများ လည်ပတ်ရာ နေရာတွင် လုံခြုံရေး အကာအကွယ်များ တပ်ဆင်ခြင်း (၆) စက်တွင် ပါဝင်သောမော်တာ ပတ္ထားကြိုး၊ ချိန်းကြိုး နှင့် ဂီယာ၊ ရွှေ့လျား အစိတ်အပိုင်းများကို ပုံမှန်စစ်ဆေးခြင်း (၇) စက်ယန္တရား၏ အစိတ်အပိုင်းများကို စနစ်တကျ တပ်ဆင်ခြင်း (၈) စက်စတင် အသုံးမပြုမီ စက်၏ လျှပ်စစ်ကြိုးများကို စစ်ဆေးပြီး ပေါက်ပြဲ ပျက်စီး နေလျှင် ပြုပြင်လဲလှယ်ခြင်း (၉) စက်စတင်အသုံးမပြုမီ 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၊ အနံ့အသက်	ပစ္စည်းများနေရာချခြင်းကြောင့် ဖုန်၊ အမှုန်အမွှားထွက်ရှိခြင်း	(၁) လုပ်သားများအတွက် နှာခေါင်းစည်းများ အလုံအလောက်စီစဉ် ထားရှိခြင်း (၂) အမှုန်အမွှားထွက်ရှိသည့် အလုပ်နေရာတွင် လုပ်သားများ နှာခေါင်းစည်းအသုံးပြုမှုကို ပုံမှန်စစ်ဆေး ကြပ်မတ်ခြင်း (၃) အမှုန်ထုတ်လွှတ်မှု တိုင်းတာသည့် ကိရိယာတပ်ဆင်ခြင်း (၄) အမှုန်ထုတ်လွှတ်မှု ၅ဝထက် ကျော်လွန် လျှင်လုပ်ငန်းအားလုံးကို ခေတ္တရပ်နား ထားခြင်း (၅) အမှုန်အမွှားစုပ်စက် အသုံးပြုခြင်း

၇။ လူထုနှင့်တွေ့ဆုံဆက်ဆံရေး

Jessie Myanmar Apparel Manufacturing Company Limited မြေကွက်အမှတ် (၁၃၀)၊ မြေတိုင်းအကွက် အမှတ် (၂)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး၊ မြန်မာနိုင်ငံတွင် တည်ဆောက်ထားရှိသည်။ စီမံကိန်းတွင် စက်မှုဇုန်စီမံခန့်ခွဲမှုကော်မတီ အစည်းအဝေးများ ပါဝင်မည် ဖြစ်သည်။ ဌာနဆိုင်ရာ စစ်ဆေးမှုများနှင့်အညီလိုက်နာမှ၊ စီမံကိန်းအနီးတဝိုက်ရှိ အခြားဌာနဆိုင်ရာ အရာရှိများ၊ အခြားစီးပွားရေးလုပ်ငန်းရှင်များနှင့် အများသူငှာကောင်းမွန်သောဆက်ဆံရေး တည်ဆောက်ခြင်းအပေါ် အထူးအလေးပေး ဆောင်ရွက်ပါသည်။

ဌာနဆိုင်ရာတာဝန်ရှိသူများ၊ ဇုန်စီမံခန့်ခွဲမှုကော်မတီမှ တာဝန်ရှိသူများ၊ ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွား ထိခိုက်မှု မရှိစေရေး အတွက် ပြည်သူများ နှင့် ပုံမှန် ညှိနှိုင်း ဆွေးနွေး သွားမည် ဖြစ်ကြောင်း သိရသည်။

စက်ရုံတွင်လုပ်ငန်းအပေါ် အများသူငှာ တုံ့ပြန်ချက်ပေးရန် အချိန်တိုင်း အကြံပြုချက် စာတိုက်ပုံးတစ်ခုထားရှိပါမည်။ စက်မှုဇုန်ကော်မတီနှင့် သက်ဆိုင်ရာဌာနများ၏ လမ်းညွှန်ချက်များကို အမြဲတမ်း လိုက်နာဆောင်ရွက်သွားရမည်ဖြစ်သည်။ စီမံကိန်းကြေညာချက်များကို စက်မှုဇုန်ကော်မတီရုံးနှင့် စက်ရုံကြော်ငြာဘုတ်များတွင် အချိန်နှင့်တပြေးညီ ထုတ်ပြန်ပေးမည်ဖြစ်သည်။

၈။ ကောက်ချက်များနှင့် အကြံပြုချက်များ

စက်ရုံ၏ထုတ်လုပ်မှုလုပ်ဆောင်ချက်များမှ အဓိကသဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ ထိခိုက်နိုင်မှု ခြောက်ခု ဖြစ်ပေါ်နိုင်သည်။ Jessie Myanmar Apparel Manufacturing Company Limited သည် ရေးဆွဲချမှတ်ထားသော သက်ရောက်မှုစီမံခန့်ခွဲမှုနှင့် စောင့်ကြည့်ရေးအစီအစဉ်ကို အတိအကျ လိုက်နာခြင်းဖြင့် ဤပတ်ဝန်းကျင် ဆိုင်ရာထိခိုက်မှုများကို လျှော့ချစောင့်ကြည့်သင့်သည်။ စက်ရုံ၏ လူမှုစီးပွားတာဝန်သိမှု အစီအစဉ်ဖြင့် ပတ်ဝန်းကျင်ကျေးရွာများကို ဖွံ့ဖြိုးတိုးတက်စေနိုင်အောင် ဆောင်ရွက်သွားရမည်ဖြစ်သည်။ စက်ရုံလုပ်ငန်း အဆိုပြုသူသည် သဘာဝပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာတွင် သဘာဝပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ် ဆိုင်ရာလိုက်နာချက်များကို ကတိကဝတ် ပြုထားသည်။ သဘာဝပတ်ဝန်းကျင် ထိခိုက်မှုလျှော့ချရေး လုပ်ငန်းများနှင့် အစီအစဉ်များကို အပြည့်အဝနှင့် ပရောဂျက်လုပ်ငန်းများ ပိတ်သိမ်းသည့်အခါ လူမှုပတ်ဝန်းကျင်အပေါ် ထိခိုက်မှုအနည်းဆုံးဖြစ်အောင် လုပ်ဆောင်သွားမည်ဖြစ်သည်။ ထိခိုက်မှုရှိနိုင်ပါက ထိခိုက်မှုအနည်းဆုံးဖြစ်အောင် ဆောင်ရွက်မည် ဖြစ်သည်။ လူမှုစီးပွား ပူးပေါင်းဆောင်ရွက်မှု အစီအမံများကို အကောင်အထည်ဖော် ဆောင်ရွက်သွားမည်။

EXECUTIVE SUMMARY

1. Introduction

Jessie Myanmar Apparel Manufacturing Company Limited is a Private Company Limited incorporated under the Myanmar Companies Act. Jessie Myanmar Apparel Manufacturing Company Limited is a specialized company in Registration Department (DICA) with registration Number (124418658). Investment type of Jessie Myanmar Apparel Manufacturing Company Limited is fully foreign investment business and the factory produces knitted wear with CMP production scheme and had been approved MIC permit. The company is located at Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar. The owner of the project requested to get an opinion from the Environmental Conservation Department (Yangon) to prevent environmental and socio-economic impacts and to carry out an environmental protection process. Environmental Conservation Department (Yangon) made a comment to submit the environmental management plan and reply letter. Therefore, This Environmental Management Plan (EMP) for Jessie Myanmar Apparel Manufacturing Company Limited factory was prepared by ESC company limited. Environmental Management Plan for the plant was carried out by Environment Services Collection Company Limited (ESC). The EMP was prepared in accordance with the stipulations in paragraph 76 - 82 of the EIA procedure. 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).

2. Commitment

This Environmental Management Plan (EMP) for Jessie Myanmar Apparel Manufacturing Company Limited 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 76-77-82). I hear by signed this report on behalf of the Jessie Myanmar Apparel Manufacturing Company Limited to certify that all the information in it is true and convincing to the best of our knowledge.

- (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.
- (d) Improving the environmental management plan approved during the period of operation; Depending on the systems and business requirements, instructions will be followed to make better environmental management plans.
- (e) If the project proponent wants to amend the environmental management plan, we will get the approval and amendment.
- (f) When the project is completed and closed, it will minimize the impact on the community. In the event of an accident, minimize the risk; Socio-economic cooperation plans will be made.

3. Law review and Legal Requirements

The Laws, Rules and Procedures should be compliance from Jessie Myanmar Apparel Manufacturing Company Limited is as follows.

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

- 13. The Control of Smoking and Consumption of Tobacco Product Law (2006)
- 14. National Environmental Quality (Emitting) Guideline
- 15. National Environmental Policy (2019)
- 16. Social Security Law (2012)
- 17. Myanmar Insurance Law 1993
- 18. Workers' Compensation Act 1951
- 19. Disaster Management Law 2011
- 20. Yangon City Development Law (2018)
- 21. Electricity Law (2014)
- 22. Small Industries Promotion Law
- 23. Myanmar Companies Law (2007)
- 24. Union Customs Law (2007)
- 25. Public Health Law (1972)
- 26. Law on the Prevention and Control of Communicable Diseases (1995)
- 27. Myanmar Investment Law (2011) Rule (2003); Notice No. (2003)

4. Project Description

Jessie Myanmar Apparel Manufacturing Company Limited is a Private Company Limited incorporated under the Myanmar Companies Act with registration Number (124418658). The company is located at Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar. The list of Directors of the project owner and project data are shown in following table.

Table A. List of the factory data of Jessie Myanmar Apparel Manufacturing Company Limited

No.	Project Data	Description
1	Company Name	Jessie Myanmar Apparel Manufacturing Company Limited
2	Project Type	Manufacturing of knitted wear on CMP basis
3	Location	Plot No. (130), Myay Taing Block No- Zone No(2), Industrial
		Zone, Hlaing Tharyar Township, Yangon Region, Myanmar
4	Investment type	Foreign

5	Investment amount	US\$4.069 million for 10 years
	and period	
6	Project started	2020
	period	
7	project area	(1.195) acres
8	Project Owner	Mr. Lin Bo (EA. 7897443)
		Ms. Tan Dan (EA. 92391281)
9	Office Address	Plot No. (130), Myay Taing Block No- Zone No(2), Industrial
		Zone, Hlaing Tharyar Township, Yangon Region, Myanmar

Table B. Project Owner data of Jessie Myanmar Apparel Manufacturing Company Limited

Project Owner data	Description
Project Owner Name	Mr. Lin Bo (EA. 7897443)
	Ms. Tan Dan (EA. 92391281)
Citizen	China
Position	Director
Office Address	Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar
Contact	Zaw Zin Aung 09- 890092014/ emp.reporting.to.ecd@gmail.com

Jessie Myanmar Apparel Manufacturing Company Limited is located at Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar. The project area land includes office, factory, security office, raw materials storage area, and canteen and product storage area. The factory is located latitude 16°51'3.66"N and longitude 96° 4'33.66"E.

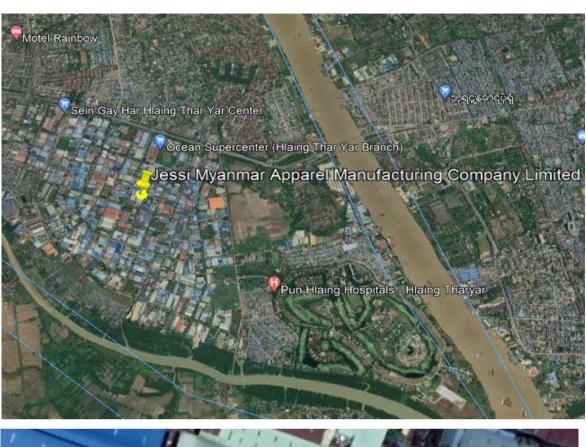




Figure A. Location of Jessie Myanmar Apparel Manufacturing Company Limited

The factory produces garment with CMP production scheme. Majority of the products are exported. Routine production works can be seen in the following flow diagram. Primary production scheme is raw materials storing, inspection, cutting, washing, sewing, and quality, ironing and packing. The production process is labor intensive which is a trademark of CMP industry. The production process produces no liquid effluent and slightly gaseous emission from boiler. The process produce solid waste mainly consists of all process and these solid wastes are managed to collect by the government waste collector.



Figure B. Process Flow Diagram for Jessie Myanmar Apparel Manufacturing Company

Limited

5. Current condition of Surrounding Environment

Water supply for Jessie Myanmar Apparel Manufacturing Company Limited is obtains mainly from the tube well and storage with one concrete pool (1000gal). Water is extracted from one tube well usage is hand washing, bathing, toilets and kitchen and washing in process. Production process has contained usage for process water in washing process. Daily usage of tube well water is (4000) gal and annually usage is (1,400,000) gal. 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 6.7 which is well within the limit of acceptable WHO drinking water value 6-9. The turbidity of the tube well water is 2. Iron (0.22, mg/l) is within the acceptable limit of 0.3 mg/l (WHO) drinking water guideline. Factory was installed drinking water treatment system for drinking water.

Water is extracted from one tube well and this water is used for hand washing and toilets. In the factory, washing system is including in operation steps. Therefore, the discharged water was collected from the factory as sample. Domestic waste water is discharge from toilets, kitchen and labor house. This waste was discharged to roadside drain. The plant has no water treatment unit.

The sampling point was the outlet of the drain of the plant. The pH of the water is 7.4. The suspended solid from the water can be seen about 32 mg/l, dissolved solids 40 mg/l.

The BOD and COD result of waste water is in the range of NEQEG about 30 and 96 mg/l. From the following table, pH, BOD, COD, TSS are within the range of NEQEG guideline value. Total Suspended Solid (TSS) is within the range of NEQEG.

CO, CO₂, NO₂, SO₂, O₃, PM₁₀ 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.

Table B. Result of Air Quality

No	Parameters	Results		Avg.	Guideline	Averaging
		Observed	Converted	Period	value	Period
		value	value		(NEQEG)	
1	Nitrogen dioxide				$40 (\mu g/m^3)$	1-year
	NO ₂	54 ppb	$101.5(\mu g/m^3)$	1-hour*	$200 (\mu g/m^3)$	1-hour
2	Ozone (O ₃)	32 ppb	$62.7(\mu g/m^3)$	8-hour	$100 (\mu g/m^3)$	8-hour daily
						maximum
3	Particulate matter				$20 \ (\mu g/m^3)$	1-year
	PM ₁₀	$23 \ (\mu g/m^3)$		24-hour	$50 (\mu g/m^3)$	24-hour
4	Particulate matter				$10 (\mu g/m^3)$	1-year
	PM _{2.5}	11 ($\mu g/m^3$)		24-hour	$25 \; (\mu g/m^3)$	24-hour
5	Sulfur dioxide	2 ppb	$5.24(\mu g/m^3)$	24-hour	$20 \ (\mu g/m^3)$	24-hour
	SO ₂				$500 \ (\mu g/m^3)$	10 minute

6	Carbon dioxide	240 ppm	24-hour		
	CO ₂			-	
7	Carbon monoxide	2 ppb	24-hour		
	СО			-	

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 Jessie Myanmar Apparel Manufacturing Company Limited which are moderately 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

6. Impact Assessment and Mitigation

Table C. Environmental Aspect and Impact depend on factory activity

Sr.	Activity List	Aspect	Impact
1	Raw Receiving	Overweight lifting	Injury from overweight lifting
		Packing waste	Solid waste generation
2	Fabric Cutting	Operation of cutting	Injury from cutting machine,
		machine	Solid waste generation
3	Sewing, zipper	Pieces of thread cuts,	Solid waste generation, Injure
	stitching and iron	needle	by needle and heat injury

4	Finishing, Tag &	Pieces of thread cuts,	Solid waste generation, Injure
	Code	needle cuts	by needle
5	Packing	Packing waste	Solid waste generation
6	Storage	Pieces of plastic	Solid waste generation
		Overweight lifting	Injury from overweight lifting

Table D. Mitigation Measures for Anticipated Impacts

IMPACTS	Impact Source	Mitigation	
Fire hazard	-Smoking in prohibited area	 Strictly prohibit smoking within factory compound Clearly define and notify emergency exits Passage ways must always be kept clean and clear Regularly check and refill fire extinguishers Exercise fire drill regularly 	
Solid Waste	 Pieces of nylon fabric Pieces of thread cuts, needle cuts Packing waste Plastic waste General waste 	 Packing nylon fabric waste in bags Cleaning continuous and regularly Stacking waste bags systematically Calling waste collector regularly Providing adequate dust bins 	
Physical hazard	-Injury from overweight lifting - Contact with cutting machine - Injury by needle	Using necessary lifting and carrying a apparatus and machinery Using metal hand gloves for cutti machine operators Installing needle guards	
Noise	- Operation of generator and machine	Carrying out regular maintenance works for all the equipment and generator	

		2. Installation cover in generator room for noise
Machinery	- 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	- Operation of fabric	1.Wearing necessary PPE (goggle, gloves)
dust	settling	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/m³ in a day
5. Cleaning with dust collector

8. Communication

Jessie Myanmar Apparel Manufacturing Company Limited. is located at Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar. The project will include industrial zone management committee meetings; Compliance with departmental inspections; other departmental officials in the vicinity of the project; Special emphasis is placed on building good relationships with other business people and the public.

Departmental officials, officials from the Zone Management Committee; Regular consultations will be held with the people in the area and public opinion will be taken to ensure that there is no harm to the environment and the socio-economy.

The factory will have a suggestion box to provide public feedback on the project at all times. The guidelines of the Industrial Zone Committee and relevant departments will always be followed. Project announcements will be made in real time at the Industrial Zone Committee Office and the factory notice board.

CSR activities of Jessie Myanmar Apparel Manufacturing Company Limited are managed to develop socio-economic and humanity life. The net profit of this business is used for corporate social responsibility and table is shown in below.

Table E. CSR Activities Jessie Myanmar Apparel Manufacturing Company Limited

No	Plan	Percent of CSR budgets
1	Supporting for education	20%
2	Supporting for road preparing	20%
3	Supporting for township development	20%
4	Supporting for environmental conservation and	20%
	cleaning	

5	Supporting for human care and rescue	20%
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9. Conclusions and Recommendations

Six key environmental impacts can be occurred from the project objectivities. Jessie Myanmar Apparel Manufacturing Company Limited should be reduced and monitored on these environmental impacts by following specifically the impacts management and monitoring plan described in EMP report. 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. The project is committed to the environmental management plan report; Environmental impact reduction activities and programs will be fully and continuously followed. When the project works are completed and the project works are closed, it will be done to minimize the impact on the social environment. If there is damage, measures to minimize the damage. Socio-economic cooperation measures will be implemented.

ENVIRONMENTAL MANAGEMENT PLAN FOR

JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED

1 INTRODUCTION

1.1 PROJECT BACKGROUND

Jessie Myanmar Apparel Manufacturing Company Limited is a Private Company Limited incorporated under the Myanmar Companies Act. Jessie Myanmar Apparel Manufacturing Company Limited is a specialized company in Registration Department (DICA) with registration Number (124418658). Investment type of Jessie Myanmar Apparel Manufacturing Company Limited is fully foreign investment business and the factory produces knitted wear with CMP production scheme and had been approved MIC permit. The company is located at Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar. The owner of the project requested to get an opinion from the Environmental Conservation Department (Yangon) to prevent environmental and socio-economic impacts and to carry out an environmental protection process. Environmental Conservation Department (Yangon) made a comment to submit the environmental management plan and reply letter is shown in figure 1. Therefore, This Environmental Management Plan (EMP) for Jessie Myanmar Apparel Manufacturing Company Limited factory was prepared by ESC company limited. Environmental Management Plan for the plant was carried out by Environment Services Collection Company Limited (ESC) from June to July, 2022. The EMP was prepared in accordance with the stipulations in paragraph 76 – 82 of the EIA procedure. 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). Environment Services Collection Company Limited (ESC) EMP team consists of the core team and sector-wise participants.



တိုင်းဒေသကြီးညွှန်ကြားရေးမျူးရုံး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန ရန်ကုန်တိုင်းဒေသကြီး ရန်ကုန်မြို့

အမှတ် ၁၀(ဂျေ)၊ ၅၅ လမ်း(ကုန်သည်လမ်း နှင့် ကမ်းနားလမ်းကြား)၊ ဗိုလ်တထောင်မြို့နယ်၊ Post Code-11161 ဖုန်း - ဝ၁ - ၈၂ဝ၃စ၃၈၊ ဖက်စ်-ဝ၁-၈၂ဝ၃စ၃၉ ၊ အီးမေးလ် - ygnecd.moecaf@gmail.com

> စာအမှတ်၊ရက-၁/၃/၄(အီးအိုင်အေ)(၁၈ဝ၂ /၂ဝ၂ဝ) ရက်စွဲ၊ ၂ဝ၂ဝ ပြည့်နှစ် ၊ ဇွန်လ ၁၁ ရက်

သို့ အတွင်းရေးမှူး ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ

အကြောင်းအရာ။ Jessie Myanmar Apparel Manufacturing Company Limited ၏ CMP

စနှစ်ဖြင့် သိုးမွှေးထည်ချုပ်လုပ်ခြင်းလုပ်ငန်းနှင့်ပတ်သက်၍ ဆောင်ရွက်ရန် လိုအပ်သည့် သဘာဝပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းအမျိုးအစား စိစစ်

ပြန်ကြားခြင်း

ရည်ညွှန်းချက်။ ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ၏ ၄–၆–၂၀၂၀ ရက်စွဲပါ စာအမှတ်၊ ရကတ/ရနမ –၂ /၂၀၂၀(၁၉၀၁)

၁။ ရာခိုင်နှုန်းပြည့် နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှုဖြင့် Jessie Myanmar Apparel Manufacturing Company Limited မှ မြေကွက်အမှတ် – ၁၃၀ မြေတိုင်းရပ်ကွက်အမှတ် – ဇုန် (၂)၊ စက်မှုဇုန်၊ လှိုင်သာယာ မြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် CMP စနစ်ဖြင့် သိုးမွှေးထည်ချုပ်လုပ်ခြင်းလုပ်ငန်း ဆောင်ရွက်လို ကောင်း ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီထံ တင်ပြခဲ့မှုအပေါ် အဆိုပါစီမံကိန်းလုပ်ငန်း နှင့်ပတ်သက်၍ တင်သွင်းမည့် စက်ပစ္စည်းနှင့်ကုန်ကြမ်းများသည် လုပ်ငန်းသဘာဝနှင့် ကိုက်ညီခြင်း ရှိ/မရှိ၊ ထုတ်လုပ်မည့် ကုန်ချောနှင့် တင်သွင်းမည့်ကုန်ကြမ်းအရေအတွက် ဆီလျော်မှုရှိ/မရှိ၊ မည်သည့် သဘာဝပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ချက် ဆောင်ရွက်ရမည်ကိုစိစစ်၍ သဘောထားမှတ်ချက် ပြန်ကြားပေးနိုင်ပါရန် ရည်ညွှန်းပါစာဖြင့် အကြောင်းကြားလာပါသည်။

၂။ ရည်ညွှန်းပါစာဖြင့် အကြောင်းကြားလာသည့် စိစစ်ပြန်ကြားရန် သဘောထားမှတ်ချက်များအနက် မည်သည့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ချက် ဆောင်ရွက်ရမည်ကို စိစစ်ရာတွင် ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း အပိုဒ် (၂၄) အရ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ဆောင်ရွက်ရမည့် လုပ်ငန်းဖြစ်ကြောင်း စိစစ်တွေ့ရှိရပါသည်။

၃။ သို့ဖြစ်ပါ၍ Jessie Myanmar Apparel Manufacturing Company Limited မှ CMP စနစ်ဖြင့် သိုးမွှေးထည်ချုပ်လုပ်ခြင်းလုပ်ငန်းအတွက် စီမံကိန်းအဆိုပြုသူအနေဖြင့် အောက်ပါအချက်များအား လိုက်နာဆောင်ရွက်ရန် လိုအပ်ပါကြောင်း သဘောထားမှတ်ချက် ပြန်ကြားအပ်ပါသည် – (က) အဆိုပြုလုပ်ငန်းကြောင့် ပတ်ဝန်းကျင်နှင့်လူမှုရေးထိခိုက်မှု အနည်းဆုံးဖြစ်စေရေးအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan – EMP) အစီရင်ခံစာအား ရေးဆွဲဆောင်ရွက်ရန်၊

- (ခ) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အစီရင်ခံစာပြုစုခြင်းကို စီမံကိန်းအဆိုပြုသူ (လုပ်ငန်းရှင်) ကိုယ်တိုင် (သို့မဟုတ်) တတိယပုဂ္ဂိုလ် (သို့မဟုတ်) အဖွဲ့အစည်းကို ခန့်အပ်ဆောင်ရွက်နိုင်ရန်၊
- (ဂ) တတိယပုဂ္ဂိုလ် (သို့မဟုတ်) အဖွဲ့ အစည်းအား ခန့် အပ်၍ ဆောင်ရွက်မည်ဆိုပါက ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနတွင် လုပ်ငန်းလိုင်စင်ရယူထားသော ပုဂ္ဂိုလ် (သို့မဟုတ်) အဖွဲ့ အစည်းစာရင်းအား www.ecd.gov.mm/?q=third-party တွင် ဝင်ရောက်ကြည့်ရှုခန့် အပ်ဆောင်ရွက်နိုင်ရန်၊
- (ဃ) စီမံကိန်းနှင့်ပတ်သက်သည့် ပိုင်ရှင်ပြောင်းလဲခြင်း၊ အစီရင်ခံစာတွင် ဖော်ပြပါရှိသည့် ထုတ်လုပ်မှုပမာဏထက် ပိုမိုထုတ်လုပ်ခြင်း၊ လုပ်ငန်းလည်ပတ်မှုဒီဖိုင်းများပြောင်းလဲခြင်း၊ လုပ်ငန်းတည်နေရာပြောင်းလဲခြင်း၊ လုပ်ငန်းရပ်ဆိုင်းခြင်း (သို့မဟုတ်) ပိတ်သိမ်းခြင်း များ ပြုလုပ်မည်ဆိုပါက မပြုလုပ်မီ ရန်ကုန်တိုင်းဒေသကြီး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာနသို့ တင်ပြသွားရန်၊
- (င) စီမံကိန်းဝန်းကျင်တွင် နေထိုင်သော ဒေသခံပြည်သူများ၏ ဆန္ဒနှင့်သဘောထားများကို ရယူဆောင်ရွက်ရန်။

ခွ ေဆိတာတုင် ခ ၁ | ဇြ | ၂၀၂ဝ (ခင်သီတာတင်) ညွှန်ကြားရေးမှူး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန ရန်ကုန်တိုင်းဒေသကြီး

မိတ္တူကို

ရုံးလက်ခံ၊ မျှောစာတွဲ၊ အမှုတွဲချုပ်

Figure 1. Environmental Conservation Department (Yangon) Reply letter

Table 1. List of the factory data of Jessie Myanmar Apparel Manufacturing Company Limited

No.	Project Data	Description	
1	Company Name	Jessie Myanmar Apparel Manufacturing Company Limited	
2	Project Type	Manufacturing of knitted wear on CMP basis	
3	Location	Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar	
4	Investment type	Foreign	
5	Investment amount and period	US\$4.069 million for 20 years	
6	Project started period	2020	
7	project area	(1.195) acres	
4	Project Owner	Mr. Lin Bo (EA. 7897443) Ms. Tan Dan (EA. 92391281)	
5	Office Address	Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar	

Table 2. Project Owner data of Jessie Myanmar Apparel Manufacturing Company Limited

Project Owner data	Description
Project Owner Name	Mr. Lin Bo (EA. 7897443)
	Ms. Tan Dan (EA. 92391281)
Citizen	China
Position	Director
Office Address	Plot No. (130), Myay Taing Block No- Zone No(2), Industrial
	Zone, Hlaing Tharyar Township, Yangon Region, Myanmar
Contact	Zaw Zin Aung 09- 890092014/ emp.reporting.to.ecd@gmail.com

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 OF ENVIRONMENT SERVICES COLLECTION COMPANY LIMITED (ESC)

Environment Services Collection Company Limited (ESC) was arranged for EMP study and reporting for Jessie Myanmar Apparel Manufacturing Company Limited factory. EMP team consists of the following team and sector-wise participants. This Environmental Management Plan has been done with reasonable skills, care and diligence in accordance with the stipulations of Environmental Impact Assessment Procedure (Paragraph 76-77-82). Jessie Myanmar Apparel Manufacturing Company Limited factory EMP team consists of the core team and sector-wise participants. Profile of Environment Service Collection Company Limited (ESC) is described in appendix 2.

Table 3. EMP Team Member

No	Name	Position	Area of Responsibility
1	Daw Sein Shwe Sin Oo	Consult (Director)	Facilitation of meeting
			Risk assessment and hazard
			management
2	U Aung Than Oo	Consult	Facilitation of meeting
			Geology and soil
3	Daw Yin Yin Htun	Consult	Risk assessment and hazard
			management
4	Daw Thida Win	Consult	Facilitation of meeting
			Biodiversity

5	U Ye Myat Phone Hlaing	Consult	Air pollution control	
			Metrology, Socio – Economy	
			Waste management	
6	Daw Hla Htay	Consult	Socio – Economy Facilitation of	
			meeting	
7	U Aung Khaing San	Consult	Geology and soil	
			Noise and vibration	
8	U Kyaw Swar Lin	Consult	Law review	

Table 4. Contact Data of Environment Service Collection Company Limited

1	Company Name	Environment Service Collection
2	Company ID No	12473605
3	Address	95 Residence, Kyitewine Pagoda Street, Mayangone Township, Yangon
4	Ph.no/E-mail	09- 890092014 service.mm.esc@gmail.com

2 COMMITMENT

This Environmental Management Plan (EMP) for Jessie Myanmar Apparel Manufacturing Company Limited 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 76-77-82). I hear by signed this report on behalf of the Jessie Myanmar Apparel Manufacturing Company Limited to certify that all the information in it is true and convincing to the best of our knowledge.

- (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.

- (d) Improving the environmental management plan approved during the period of operation; Depending on the systems and business requirements, instructions will be followed to make better environmental management plans.
- (e) If the project proponent wants to amend the environmental management plan, we will get the approval and amendment.
- (f) When the project is completed and closed, it will minimize the impact on the community. In the event of an accident, minimize the risk; Socio-economic cooperation plans will be made.

No	List of Commitment	Commitment description	Mention chapter
1	The accuracy and completeness	The environmental management plan is rigorous and comprehensive.	All chapter
2	strict compliance with applicable laws	That the EMP has been prepared in strict compliance with applicable laws including the EIA Procedure; and That the Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP Report	
3	Improving the environmental management plan approved during the period of operation	Improving the environmental management plan approved during the	Chapter (13) Management and Monitoring plan

		period of operation;	
		Depending on the	
		systems and business	
		requirements,	
		instructions will be	
		followed to make better	
		environmental	
		management plans.	
4	Amending the environmental	If the project proponent	Chapter 3 (legal
	management plan	wants to amend the	requirement)
		environmental	
		management plan, he/she	
		will get the approval and	
		amendment	
5	Factory decommissioning	When the project is	Chapter 8.6 Factory
		completed and closed, it	
		will minimize the impact	Decommissioning
		on the community. In the	Management Plan
		event of an accident,	
		minimize the risk; Socio-	
		economic cooperation	
		plans will be made.	

3 LAW REVIEW AND LEGAL REQUIREMENTS

The Laws, Rules and Procedures should be compliance from Jessie Myanmar Apparel Manufacturing Company Limited is as follows.

- 1. Myanmar Environmental Policy
- 2. Environmental Conservation Law (2012)
- 3. Environmental Impact Assessment Procedures
- 4. Employment and Skill Development Law (2013)

- 5. Factory Act (1951)
- 6. Minimum Wages Law (2013)
- 7. Myanmar Fire Bridgate Law (2015)
- 8. Occupational Safety and Health Law (2019)
- 9. The Labour Organization Law (2011)
- 10. The Settlement of Labour Dispute Law (2012)
- 11. The Leave and Holiday Act (1951)
- 12. The Prevention of Hazard from Chemical and related Substances Law (2013)
- 13. The Control of Smoking and Consumption of Tobacco Product Law (2006)
- 14. National Environmental Quality (Emitting) Guideline
- 15. National Environmental Policy (2019)
- 16. Social Security Law (2012)
- 17. Myanmar Insurance Law 1993
- 18. Workers' Compensation Act 1951
- 19. Disaster Management Law 2011
- 20. Yangon City Development Law (2018)
- 21. Electricity Law (2014)
- 22. Small Industries Promotion Law
- 23. Myanmar Companies Law (2007)
- 24. Union Customs Law (2007)
- 25. Public Health Law (1972)
- 26. Law on the Prevention and Control of Communicable Diseases (1995)
- 27. Myanmar Investment Law (2011) Rule (2003); Notice No. (2003)

3.1 Myanmar Environmental Policy

The Constitution of the Republic of the Union of Myanmar stipulates the Government to protect and conserve the natural environment and implies every citizen of Myanmar to assist the Government in environmental conservation.

National Environmental Policy (1994) is the basis for the integration of environmental consideration into development in Myanmar which proclaims the Government's commitment to sustainable development. It highlights the integration of environmental considerations with

development process for a better quality of life of all citizens. The State has the responsibility to preserve its natural resources in the interest of present and future generations and that environmental protection should always be the primary objective in seeking development. The Myanmar Agenda 21 was developed in 1997 for all-natural resource management and environmental conservation work in pursuit of activities relating to biodiversity conservation. National Sustainable Development Strategy (NSDS) prepared in 2009 includes three goals: (i) sustainable management of natural resources; (ii) integrated economic development and (iii) sustainable social development. One of the Government's main priorities is to mainstream sustainable environmental considerations into the national development planning and to

develop an effective safeguards system to prevent the social and environmental impacts

3.2 Environmental Conservation Law

associated with rapid economic growth.

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 5. 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.		

3.3 Environmental Impact Assessment Procedures

Former MOECAF developed the Environmental Impact Assessment Procedures which were approved in December 2015. MOECAF is already applying the main principles of EIA Procedures before their approval. Under the Foreign Investments Rules, the environmental impact assessment and social impact assessment reports are needed to be attached together with the investment proposal. Capital intensive investment projects and designated businesses need to be assessed by the MOECAF in terms of environmental impacts and compliance. Under the

EIA procedures, all projects undertaken in Myanmar that can cause significant adverse impacts are required to undertake an IEE or EIA and to obtain an Environmental Compliance Certificate (ECC).

3.4 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.

3.5 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.

3.5.1 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.

3.5.2 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.

3.5.3 If working on days-off

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

3.5.4 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

3.5.5 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.

3.5.6 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.

3.6 Minimum Wages Law

3.6.1 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'.

3.6.2 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.

3.7 Myanmar Fire Bradgate 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.

3.8 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:
- 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.

3.9 The Labor 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.

3.10The Settlement of Labor 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.

3.11The Leave and Holiday Act

3.11.1 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

3.11.2 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.

3.11.3 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.

3.11.4 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.

3.11.5 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.

3.12The 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.

3.13The 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;
- (e) To implement measures in conformity with the international convention ratified by Myanmar to control smoking and consumption of tobacco product.

3.14 NATIONAL QUALITY (EMISSION) GUIDELINE

National Environmental Quality (Emission) Guidelines (NEQG) for waste water and noise levels are referenced in this EMP report. Followings are the environmental standards and guidelines adopted by EMP team.

Table 6. Environmental Standards for Wastewater Discharge (NEQG)

Sr.	Parameter	Unit	Guideline Value
1	5-day BOD	mg/l	50
2	COD	mg/l	250
3	Oil and grease	mg/l	10
4	pH	Standard unit	6-9
5	Temperature increase	°C	<3
6	Total coliform bacteria	100 ml	400
7	Total nitrogen	mg/l	10
8	Total phosphorus	mg/l	2
9	Total suspended solids	mg/l	50

Table 7. Noise Level Standard (NEQG)

	One Hour LAeq (dBA)		
Receptor	Daytime (7:00-22:00) (10:00-22:00 for public holidays)	Nighttime (22:00-7:00) (22:00-10:00 for public holidays)	
Residential, institutional, educational	55	45	
Industrial, commercial	70	70	

Table 8. Air Quality Standard (NEQG)

Sr.	Parameter	A young ging Davied	Guideline Value
Sr.	Parameter	Averaging Period	$\mu g/m^3$
1	Nitrogen dioxide	1-year	40
1	Willogen dioxide	1-hour	200
2	Ozone	8-hour daily Maximum	100
3	PM_{10}	1-year	20
3	1 1/110	24 hour	50
4	PM2.5	1-year	10
4	1 1/12.5	24 hour	25
5	Sulfur dioxide	24-hour	20
3	Sulfur dioxide	10-minute	500

4 PROJECT DESCRIPTION

Jessie Myanmar Apparel Manufacturing Company Limited is a Private Company Limited incorporated under the Myanmar Companies Act with registration Number (124418658). The company is located at Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar. The list of Directors of the project owner and project data are shown in following table.

Table 9. List of the factory data of Jessie Myanmar Apparel Manufacturing Company Limited

No.	Project Data	Description
1	Company Name	Jessie Myanmar Apparel Manufacturing Company Limited
2	Project Type	Manufacturing of knitted wear on CMP basis
3	Location	Plot No. (130), Myay Taing Block No- Zone No(2), Industrial
		Zone, Hlaing Tharyar Township, Yangon Region, Myanmar
4	Investment type	Foreign
5	Investment amount	US\$4.069 million for 10 years
	and period	
6	Project started	2020
	period	
7	project area	(1.195) acres
8	Project Owner	Mr. Lin Bo (EA. 7897443)
		Ms. Tan Dan (EA. 92391281)
9	Office Address	Plot No. (130), Myay Taing Block No- Zone No(2), Industrial
		Zone, Hlaing Tharyar Township, Yangon Region, Myanmar

4.1 PROJECT LOCATION

Jessie Myanmar Apparel Manufacturing Company Limited is located at Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar. The project area land includes office, factory, security office, raw materials storage area, and canteen and product storage area. The factory is located latitude 16°51'3.66"N and longitude 96° 4'33.66"E.

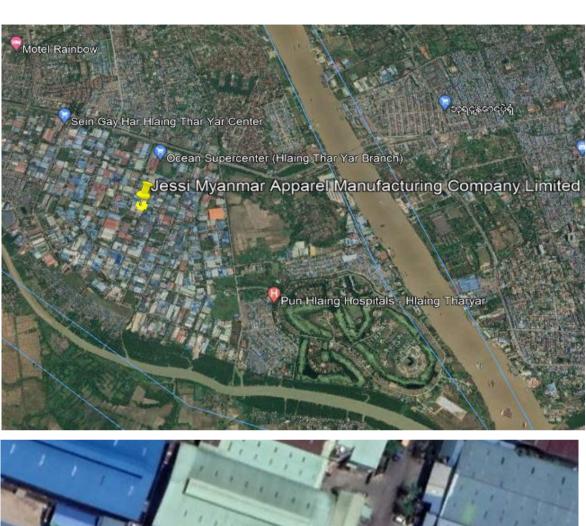




Figure 2. Location of Jessie Myanmar Apparel Manufacturing Company Limited

4.2 LAYOUT PLAN AND MAIN BUILDING

Layout Plan of Jessie Myanmar Apparel Manufacturing Company Limited is shown in following figure. The project area is (1.195) acres of land and it include office, factory building, security gate, raw materials storage area, canteen and product storage area. Layout Plan for Jessie Myanmar Apparel Manufacturing Company Limited is shown in appendix 3.

Table 10. List of the factory building data of Jessie Myanmar Apparel Manufacturing Company Limited

Main Building Size	Number
2 floor building (150 ×220) feet	1 building
2 floor building (20 ×80) feet	1 building
2 floor building (16 ×80) feet	1 building

4.3 PROJECT OPERATION

The factory produces garment with CMP production scheme. Majority of the products are exported. Routine production works can be seen in the following flow diagram. Primary production scheme is raw materials storing, inspection, cutting, washing, sewing, and quality, ironing and packing. The production process is labor intensive which is a trademark of CMP industry. The production process produces no liquid effluent and slightly gaseous emission from boiler. The process produce solid waste mainly consists of all process and these solid wastes are managed to collect by the government waste collector.

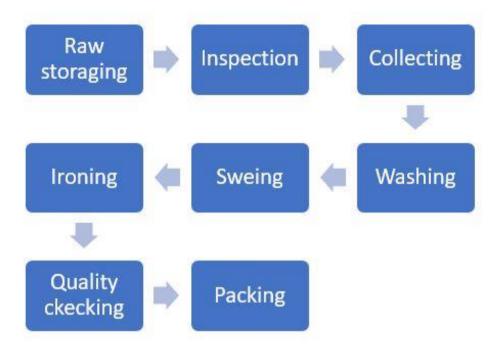


Figure 3. Process Flow Diagram for Jessie Myanmar Apparel Manufacturing Company

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4.3.1 Storing

The fabric store department is centralized in the apparel industry and all the fabric comes to this unit first from the supplier and audited here and kept until it is distributed to other units. For an export-oriented and bulk production garment industry, it is essential to maintain a well-organized & well-equipped inventory system. The main responsibility of this department is to store all the raw material necessary to produce garments. Before starting the garments production, the required amount of fabric has to store in the garments. All the next processes such as spreading, cutting, sewing, and so on. As result, store department plays an important role to get smooth production.

4.3.2 Cutting

Cutting is separating of the garment into its components and in a general form, it is the production process of separating (sectioning, curving, severing) a spread into garment parts that are the precise size and shape of the pattern pieces on a marker.

Cut Panel Inspection;

1. Quality an inspector will check Panel using Hard pattern after cut from three different

position Top, Middle, and Bottom

2. If there any discrepancy, a correction will be immediate. If the panel found plus from hard

patterns, it will have to cut extra part. If panel found minus from hard pattern, will have to place

the fabric under marker as per lay chart to remake again.

3. All cut panels will be inspected to detect any types of fabric fault if any defective panel

found, will be replaced from lay chart wise remnants by following the shade and pattern grain

line.

Production Order Sheet: Cutting Section firstly takes the PO sheet. They find out all detailed

information in the PO sheet especially size breakdown, size-wise and color-wise order quantity.

Pattern receives: They receive the approved pattern from the sample section.

Marker Making: After pattern receiving, they make marker according to the order sheet and

pattern size.

Fabric receives: Fabric is the main raw material in the cutting section. All success depends on

cutting. So, the cutting section has to become serious when they receive the fabric.

Fabric Spreading: Before spreading the fabric on table they relax the unrolled fabric for 12-24

hr. After completing relaxation, they spread the fabric on a table with proper tension.

Marker Placing: Marker is a thin paper which carries all the garments components and placed

on fabric lay for cutting. Before cutting the marker from CAD placed on fabric lay. Marker

checked very carefully before placement on fabric.

Cutting: In this step, cutting is done by a cutter machine. Straight knife cutting machine, round

knife cutting machines are mostly used for cutting.

Sorting: After cutting the cut parts are sorted according to shade, size-wise.

Numbering & checking: In this step, the cut parts are numbering and checking carefully so that

the single components never mistake. QC checks the cut parts. If any defect found they replace

the cut piece.

Bundling: The cut pieces are bundled finally.

Input to Sewing: The bundled cut piece ready for sewing.

4.3.3 Sewing Clerk

Sewing is the process of fastening or attaching two parts of fabric using stitches made

with a needle and thread. It is one of the basic steps of the apparel manufacturing process. The

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sewing section is the most important department of the garment manufacturing industry. Garment manufacturing is quite different from any other conventional manufacturing. It is not a continuous production method. Each style is a different product that requires a different type of fabric, color, buttons, thread, etc. The sewing process is one of the most important stages in labor-intensive ready-made clothing enterprises.

In this section, each and every sewing machine and job of machine operators should be inspected on a routine basis for identifying, correcting, and controlling faults and maintaining the quality of products. To ensure the quality of the product, quality control personnel have to control quality in a different section in the garment industry, which is directly or indirectly involved with the production.

4.3.4 Finishing

After stitching, there will be some hanging sewing threads on the finished product. Trimming is the operation of removing these extra hanging threads. Sometimes, finished products get stained during the production process. Some of the sewn products may also have some open seams or other stitching faults. The finishing department repairs such products before packing. The last objective of finishing department is ironing. The sewn products are pressed to remove the wrinkles and to enhance the look of the garment.

4.3.5 Packaging

The packing is always done in the carton boxes and there are several criteria for the packing of the garments. There are generally two kinds of packing the garment. The garment is individually packed/ wrapped in the poly bag whose design will be specified by the buyer. i.e., either with the hanger attached or plain poly bag packing and then the entire garments (as per the packing criteria) is arranged in the carton box. The other method is that the garments are just folded and arranged in the carton boxes without putting them in the poly bag.

4.4 Description of Raw Materials

The basic raw materials used nylon fabric and yarn. The basic raw materials used pannal cut pieces and yarn. These raw materials are imported directly from China, Vietnam, Cambodia and Taiwan. Raw material lists and annually requirement is show in appendix 4.



Figure 4. Raw Storage Area of Jessie Myanmar Apparel Manufacturing Company Limited

4.5 DESCRIPTION OF PRODUCTS

The main products of Jessie Myanmar Apparel Manufacturing Company Limited is produced various clothes (lady coat, pants and down jacket) and export to European countries. The production rate of Jessie Myanmar Apparel Manufacturing Company Limited is show in appendix 5.



Figure 5. Sample Product (Jacket) of Jessie Myanmar Apparel Manufacturing Company

Limited

4.6 Equipment and Machinery List

Equipment and Machinery lists used in Jessie Myanmar Apparel Manufacturing Company Limited are described in appendix 6.

4.7 Energy Supply

Jessie Myanmar Apparel Manufacturing Company Limited purchase electricity from government power source. The plant installed 1000 kVA transformers, 500 KVA diesel generators for supply electricity. The electrical power consumption of the factory is (360,000) KWh/year. Disel fuel for diesel generator was bought from outside supplier. Therefore, the fuel storage room is absent. The amount of diesel fuel usage is 4500 gal per year. Usage of boilers type is electrical boiler and certificate shown in appendix 7.

4.8 Operational Workforce

The work force during operation for the entire plant is 560 members and foreigner labor is about (20) person. Total operational workforce is (580) person. The female worker is 500 and male worker is (60). 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 Jessie Myanmar Apparel Manufacturing Company Limited is shown in appendix 8.

4.9 Institutional Arrangements

There are seven departments such as HR Departments, Accounting, QC, Maintenance, Ware house and Production Department which are leaded by managing director and head of departments. This factory has one shift and security is day and night shift. A managing director is responsible for nurturing the whole plant to be in smooth operation.

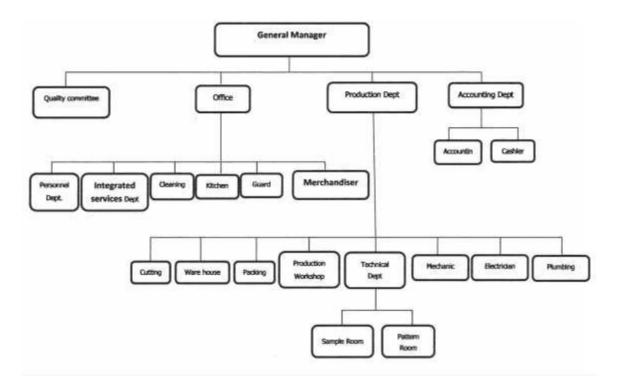


Figure 6. Organization Structure of Jessie Myanmar Apparel Manufacturing Company Limited

4.10 SOLID WASTE

The garment factory produces solid wastes mainly comprised of nylon fabric cuts. These wastes are valuable for reuse in places such as stuffing for pillow and doll. But the solid waste from Jessie Myanmar Apparel Manufacturing Company Limited is discharged by calling solid waste collector. Systematic management of these solid wastes is of importance as mismanagement of the waste will lead critical occupational hazard including fire hazard. Following table depicts waste generation from the whole production process.

Table 11. Waste Generation from Apparel Manufacturing

Sr.	Process	Waste Type	Waste Amount by Annually
1	Receiving	Packing waste	100 kg
2	Cutting	Yarn cuts, nylon fabric cuts	500 kg
3	Sewing	Yarn cuts, Thread cuts	300 kg
4	Zipper stitching	Metal waste, Thread cuts	10 kg

5	Tag and Code	Paper waste, Packing material	100 kg
6	Packing	Packing waste	18 kg

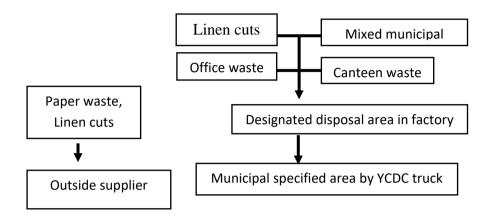


Figure 7. Waste Management System of Jessie Myanmar Apparel Manufacturing Company

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4.11 Waste Water

Water is extracted from one tube well and this water is used for hand washing and toilets. In the factory, process water isn't including in operation steps. Domestic waste water is discharge from toilets, kitchen and labor house. This waste was discharged to roadside drain. The plant has no waste water treatment unit. The sewage water was collected with YCDC in every 6 months by one time.

5 CURRENT CONDITION OF SURROUNDING ENVIRONMENT

5.1 WATER QUALITY

Water supply for Jessie Myanmar Apparel Manufacturing Company Limited is obtains mainly from the tube well. Water is extracted from one tube well for hand washing, bathing, toilets and kitchen and washing in process.

5.1.1 Tube Well Water

Water supply for Jessie Myanmar Apparel Manufacturing Company Limited is obtains mainly from the tube well and storage with one concrete pool (1000gal). Water is extracted from one tube well usage is hand washing, bathing, toilets and kitchen and washing in process. Production process has contained usage for process water in washing process. Daily usage of tube well water is (4000) gal and annually usage is (1,400,000) gal. 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 6.7 which is well within the limit of acceptable WHO drinking water value 6-9. The turbidity of the tube well water is 2. Iron (0.22, mg/l) is within the acceptable limit of 0.3 mg/l (WHO) drinking water guideline. Factory was installed drinking water treatment system for drinking water. Another parameter is shown in table.

Table 12. Tube well Water Quality Analysis Results

Sr	Particular	Unit	Tube Well	WHO Drinking Water
			Water	guideline value (Geneva-1993)
1	pН	S.U	6.9	6.5 - 8
2	Colour	TCU	Nil	15
3	Turbidity	NTU	2	5
4	TDS	mg/l	147	1000
5	Phosphate	mg/l	Nil	-
6	Iron	mg/l	0.22	0.3
7	Nitrate	mg/l	Nil	50
8	Magnesium	mg/l	120	-
9	Calcium	mg/l	340	-



Figure 8. Water Collection from Tube Well Water Concret pool (Concret pool)



Figure 9. Drinking Water treatment system was installed for labor

5.1.2 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 is including in operation steps. Therefore, the discharged water was collected from the factory as sample. Domestic waste water is discharge from toilets, kitchen and labor house. This waste was discharged to roadside drain. The plant has no water treatment unit. The location of waste water collection for the project is shown in following figure and latitude 16°51'3.56"N and longitude 96° 4'35.59"E.

The sampling point was the outlet of the drain of the plant. The pH of the water is 7.4. The suspended solid from the water can be seen about 32 mg/l, dissolved solids 40 mg/l.

The BOD and COD result of waste water is in the range of NEQG about 30 and 96 mg/l. From the following table, pH, BOD, COD, TSS are within the range of NEQG guideline value. Total Suspended Solid (TSS) is within the range of NEQG. Wastewater quality analysis result is shown in table 7 compare with NEQEG for garment industrial.

Table 13. Wastewater Quality Analysis Result

Sr.	Particular	Unit	NEQEG (garment industrial)	Waste Water Result
1	рН	-	6-9	7.4
2	BOD	mg/l	50	30
3	COD	mg/l	250	96
4	Total Suspended Solid (TSS)	mg/l	50	32
5	Total Dissolved Solid	mg/l	-	40
6	Sulphate	mg/l	-	90
7	Nitrate	mg/l	-	2.4
8	Zinc	mg/l	-	Nil
9	Copper	mg/l	-	Nil
10	Ammonia Nitrogen	mg/l	-	0.37



Figure 10. Wate water sampling point



Figure 11. Waste Water Sampling from Outlet Drainage

5.2 AIR QUALITY

5.2.1 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. The main gas from diesel generator is liberate carbon dioxide.

5.2.2 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 EMP for Jessie Myanmar Apparel Manufacturing Company Limited.12 parameter (NO2, O3, PM10, PM2.5, SO2, CO2, CO, Relativity humidity, win speed, win direction and temperature), as shown in table.

Table 14. Air analysis info

Sample site	Jessie Myanmar Apparel Manufacturing Company Limited	Sample I.D.	AS0921-02
Location	Hlaing Tharyar	Method	HAZ-
(township)			SCANNER TM
			Model-EPAS
		Station height	Ground
		(elevation)	
Location	Yangon	Latitude	16°51'3.12"N
(Region / state)		Longitude	96° 4'35.38"E
Name of client	Jessie Myanmar	log on time (Date,	1.8.2021 (09:00
	Apparel	Time)	AM)
	Manufacturing		
	Company Limited		

Air Monitoring	1.8.2021	log off time (Date,	2.8.2021 (09:00
Date		Time)	AM)
		Logging Duration	24 hours
		(hours)	

5.2.3 Identification of Air Pollutants and Its Impacts

The proposed Jessie Myanmar Apparel Manufacturing Company Limited factory is not 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 SO₂, NO₂, CO₂, CO, H₂S, PM_{2.5} and PM₁₀ 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 (CO₂) is the primary greenhouse gas pollutant, accounting for nearly threequarters 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 (O₃) 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. The reduction in life expectancy is primarily due to increase cardio-pulmonary and lung cancer mortality. Increases are likely in lower respiratory symptoms and reduced lung function in children, and chronic obstructive pulmonary disease and reduced lung function in adults.

5.2.4 Measurement Result of Air Quality Measurement Comparing with the Air Quality Standard and Guidelines

CO, CO₂, NO₂, SO₂, O₃, PM₁₀ 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.

Table 15. Result of Air Quality

No	Parameters	Re	esults	Avg.	Guideline	Averaging
		Observed	Converted	Period	value	Period
		value	value		(NEQEG)	
1	Nitrogen dioxide				$40 \ (\mu g/m^3)$	1-year
	NO ₂	54 ppb	$101.5(\mu g/m^3)$	1-hour*	$200 (\mu g/m^3)$	1-hour
2	Ozone (O ₃)	32 ppb	$62.7(\mu g/m^3)$	8-hour	$100 (\mu g/m^3)$	8-hour daily
						maximum
3	Particulate matter				$20 (\mu g/m^3)$	1-year
	PM_{10}	$23 \ (\mu g/m^3)$		24-hour	$50 (\mu g/m^3)$	24-hour
4	Particulate matter				$10 (\mu g/m^3)$	1-year
	PM _{2.5}	11 ($\mu g/m^3$)		24-hour	$25 \; (\mu g/m^3)$	24-hour
5	Sulfur dioxide	2 ppb	$5.24(\mu g/m^3)$	24-hour	$20 (\mu g/m^3)$	24-hour
	SO_2				$500 (\mu g/m^3)$	10 minute
6	Carbon dioxide	240 ppm		24-hour		
	CO ₂				-	
7	Carbon monoxide	2 ppb		24-hour		
	СО				-	





Figure 12. Installed Exhausted Fans for Indoor Factory Air Cleaning



Figure 13. Air Quality Measurement Point



Figure 14. Air Quality Measurement

5.3 NOISE

5.3.1 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.

5.3.2 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.

Table 16. 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			

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

Noise Sample Point	Date/Time	Observed	NEQEG		
	1.8.2021	Noise Level	One Hour LAeq (dBA)a		
		(MeanValue)	Daytime	Night time	
		(dBA)	07:00-22:00	22:00-07:00	
			(10:00-22:00 (22:00-10:		
			for public for public		
			holidays) holidays)		

Latitude16°51'3.12"N	9: 00 -9:59	60.8		
Longitude96°4'35.38"E	10: 00-10: 59	62.1		
	11: 00-11: 59	60.7		
	12: 00-12: 59	54.1	70	70
	13: 00-13: 59	57.7		
	14: 00-14: 59	59.7		
	15: 00-15: 59	60.2		
	16: 00-16: 59	56.9		

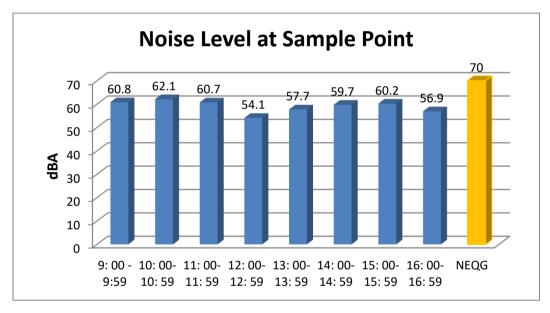


Figure 15. Air Quality Sampling



Figure 16. Noise Level Measurement Point



Figure 17. Noise Level Meter for Measuring Noise

5.4 SOIL QUALITY

One sample of soil was collected around the Jessie Myanmar Apparel Manufacturing Company Limited 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 and sampling point is 16°51'2.97"N and 96° 4'35.47"E.

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 Jessie Myanmar Apparel Manufacturing Company Limited which are moderately 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



Figure 18. Soil sampling point



Figure 19. Soil Sampling Photo

Table 18. Results of Soil Quality Analysis

	Moisture	pH Soil:		Te	xture		Organia	Humus	Total		hangea cations			nilable crients
Sample	%	Water	Sand Silt Clay Total		Organic Carbon	%		Ca	Mg	K	P	K ₂ O		
		1:2:5	%	%	%	%								
SS-1	6.18	7.63	86.48	10.16	3.36	100.0	2.13	3.67	0.261	31.24	1.42	0.88	65.67	41.57

Table 19. Interpretation of Soil Quality Results

Sample	pH Soil: Water	Texture	Organic Carbon	Total N	Exchangeable cations			Available Nutrients	
					Ca	Mg	K	P	K ₂ O
SS-1	Moderately alkaline	Loamy sand	Medium	Medium	High	Low	High	High	High

5.5 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. Socio-Economic Components of secondary data are reference from National Census data (2014) of Hlaing Tharyar Township.

5.5.1 Living conditions

The project area is located in Plot No.23, Myay Taing Block No. (112), Industrial Zone, Hlaing Tharyar Township, Yangon region, Myanmar. The total number of households in Hlaing Tharyar Township is 33,913 only. The following table and figure show the household numbers in the study area.

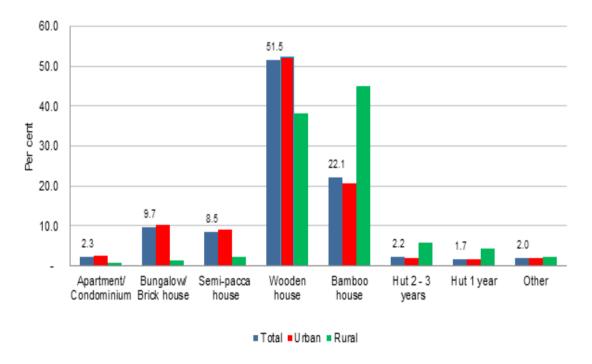


Figure 20. Types of housing unit in the Study Area

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 Hlaing Tharyar Township. The majority of the households in Hlaing Tharyar Township are living in wooden houses (51.5%) followed by households in bamboo houses (22.1%).

Table 20.	Type of	household	in the	Study	Area
-----------	---------	-----------	--------	-------	------

Residence	Total	Apartment/ Condominium	Bungalow/ Brick house	Semi-pacca house	Wooden house	Bamboo house	Hut 2 - 3 years	Hut 1 year	Other
Total	33,913	2.3	9.7	8.5	51.5	22.1	2.2	1.7	2.0
Urban	31,895	2.4	10.2	8.9	52.3	20.7	2.0	1.5	2.0
Rural	2,018	0.8	1.5	2.3	38.3	44.9	5.7	4.4	2.2

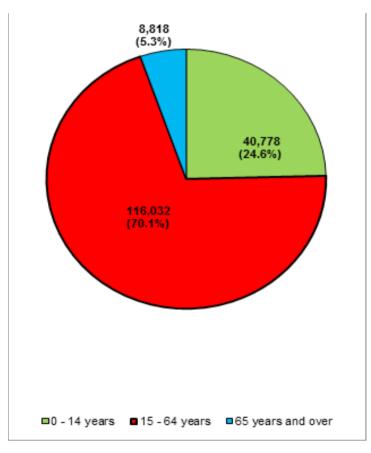


Figure 21. Population of the Study Area

The proportion of productive working population between 15 to 64 years of age in Hlaing Tharyar Township is 70.1 per cent. The proportion of children aged 14 and below together with the proportion of the elderly aged 65 and over is less than the proportion of the working age group population. Fewer proportions of children and elderly reduce the dependency of those age groups on the working age population.

5.5.2 Employment

In Hlaing Tharyar Township, 31.8 per cent of the employed persons aged 15-64 are craft and related trades workers and is the highest proportion, followed by 23.8 per cent in services and sales workers. Analysis by sex shows that 34.2 per cent of males and 27.5 percent of females are craft and related trades workers. In Yangon Region, 22.9 per cent are craft and related trades workers and 23.7 per cent are in services and sales workers.

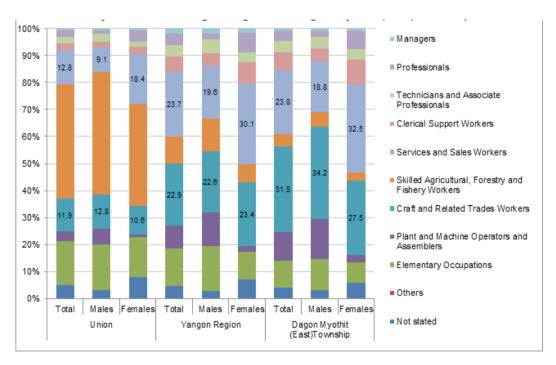


Figure 22. Employments in the Study Area

5.5.3 Religion Distribution

At the Union level, the composition of the population by religion is: 87.9% Buddhist, 6.2% Christian, 4.3% Islam, 0.5% Hindu, 0.8% Animist, 0.2% Other religion and 0.1% No

religion. In East Dagon Region, it is 91.0% Buddhist, 3.2% Christian, 4.7% Islam, 1.0% Hindu, 0.1% other religion, and less than 0.1% each for Animist and those with No religion.

5.5.4 Educational Attainment

The literacy rate of those aged 15 and over in Hlaing Tharyar Township is 96.2 per cent. It is lower than the literacy rate of Yangon Region (96.6%) and higher than the Union (89.5%). Female literacy rate is 94.8 per cent and for the males it is 97.8 per cent. The literacy rate for youth aged 15-24 is 97.4 per cent with 97.2 per cent for females and 97.7 percent for males. Some 7.8 per cent of the population aged 25 and over have never been to school. Some 7.8 per cent of the population aged 25 and over have never been to school. Of the rural population aged 25 and over, 16.4 per cent have never been to school. There are 6.7 per cent of males aged 25 and over who have never attended school as against 8.9 per cent for females. Among those aged 25 and over, 15.1 per cent has completed primary school (grade 5) and only 14.8 per cent has completed university/college education

Table 21. Population aged 25 and over by highest level of education completed, urban/rural and sex

	Total	None I	None	% Never	Primary school		Middle school (grade	High school (grade	Diploma	University/	Post-	Vocational	Other
	Total		attended	(grade 1 - 4)	(grade 5)	6 - 9)	10 - 11)	Dipiona	College	graduate and above	training	Oulei	
Total	91,406	7,155	7.8	11,641	13,791	23,926	19,879	335	13,564	626	218	27	
Urban	86,676	6,377	7.4	10,654	12,456	22,972	19,460	322	13,330	619	215	271	
Rural	4,730	778	16.4	987	1,335	954	419	13	234	7	3	5	
Males	43,374	2,901	6.7	4,200	5,775	12,530	11,024	258	6,136	230	171	149	
Females	48,032	4,254	8.9	7,441	8,016	11,396	8,855	77	7,428	396	47	122	

5.6 METEOROLOGY

5.6.1 Topography and Climate

The study area is located in Hlaing Tharyar 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.

5.6.2 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 22. Average Temperature of Yangon

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

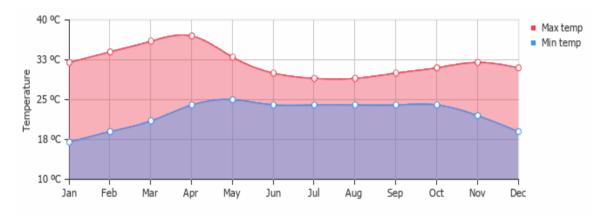


Figure 23. Temperature Graph of Yangon

5.6.3 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).

Table 23. 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 24. Rainfall Graph of Yangon



Figure 25. Rainfall Days Graph of Yangon

5.6.4 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%).

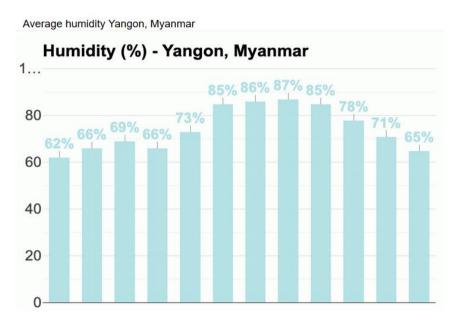


Figure 26. Humidity Graph of Yangon

Table 24. 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%

5.6.5 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 25. 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

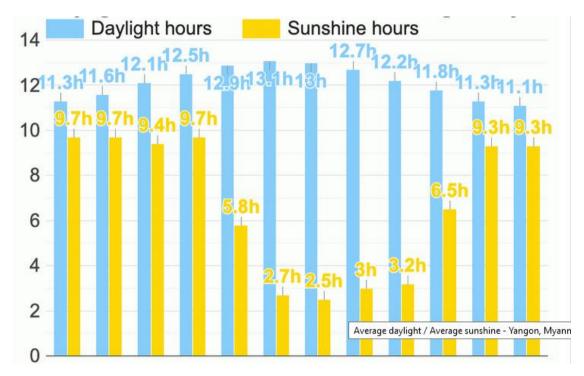


Figure 27. Day Light and Sunshine Hours graph of Yangon

5.6.6 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 26. 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

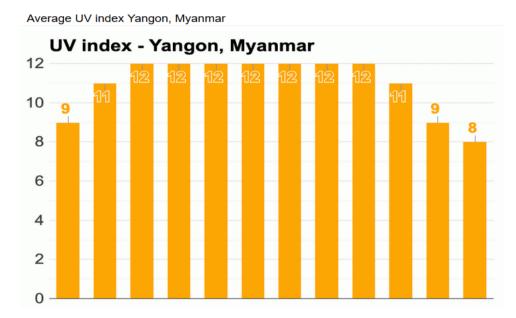


Figure 28. UV Index Graph of Yangon

5.6.7 Biodiversity

Biodiversity includes two portions, which are the study of vegetation (flora) and the study of living animals (fauna). There is no contain natural vegetation, wildlife and deforestation in project affect area within 1 kilometer.

6 IMPACT ASSESSMENT AND MITIGATION

Rating matrix method is used to assess the significance level of the identified environmental impacts of the Jessie Myanmar Apparel Manufacturing Company Limited 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 27. 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 28. Rating Matrix

		Consequence (Severity + Spatial Scope + Duration)													
	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
lity)	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
Activity (Frequency + Probability)	5	1 0	15	20	25	30	35	40	45	50	55	60	65	70	75
quency +	6	1 2	18	24	30	36	42	48	54	60	66	72	78	84	90
vity (Fre	7	1 4	21	28	35	42	49	56	63	70	77	84	91	98	105
Acti	8	1 6	24	32	40	48	56	64	72	80	88	96	104	112	120
	9	1 8	27	36	45	54	63	72	81	90	99	108	117	126	135
	1 0	2 0	30	40	50	60	70	80	90	100	110	120	130	140	150

Table 29. 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 30. Environmental Aspect and Impact depend on factory activity

Sr.	Activity List	Aspect	Impact		
1	Raw Receiving	Overweight lifting	Injury from overweight lifting		
		Packing waste	Solid waste generation		
2	Fabric Cutting	Operation of cutting	Injury from cutting machine,		
		machine	Solid waste generation		
3	Sewing, zipper	Pieces of thread cuts,	Solid waste generation, Injure		
	stitching and iron	needle	by needle and heat injury		
4	Finishing, Tag &	Pieces of thread cuts,	Solid waste generation, Injure		
	Code	needle cuts	by needle		
5	Packing	Packing waste	Solid waste generation		
6	Storage	Pieces of plastic	Solid waste generation		
		Overweight lifting	Injury from overweight lifting		

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

Table 31. Characteristics of the Impacts

IMPACTS	CHARACTERISTICS										
	Nature	Impact Source	Impact Receptor	Severity	Duration	Spatial Scope	Frequency	Probability			
Physical hazard	Negative	-Injury from overweight lifting - Contact with cutting machine - Injury by needle and heat injury - Ergonomics		Impact severity is significant for operation workers	Physical hazard will	Physical hazard will occur at the project area of activity	impact occurs	Physical			

Fire hazard	Negative	-Smoking in prohibited area - Wire shock by continuous electricity usage - Diesel storage for driving generator	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	- Pieces of fabric - Pieces of thread cuts, needle cuts - Packing waste Plastic waste - General waste	Workers and local environm ent	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	impact occurs daily	Impact from
Noise	Negative	- Operation of generator and machine	Workers	Impact severity is small occurs almost continuously	Noise hazard will occur in project life	Noise hazard will occur within the	Activity that cause the impact occurs	Noise hazard are unlikely

Machinery hazard	Negative	- Operation machine	Workers and the whole plant	and most of the workers are subjected to exposure Impact severity is slightly harmful for operation workers		whole project compound Machinery hazard will occur at the project area of activity	daily continuously Activity that cause the impact occurs daily intermittently	Machinery hazard are possible
Emission dust	Negative	- Operation of fabric settling	Workers	Impact severity is slightly harmful if air emissions are out of NEQG limit	Air emission will occur		Air emissions occur daily Intermittence operation	condition, air

Table 32. 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 dust	3	4	2	4	4	72	Low- Medium

6.1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 33. Mitigation Measures for Anticipated Impacts

IMPACTS	Impact Source	Mitigation		
Fire hazard	-Smoking in prohibited area	 Strictly prohibit smoking within factory compound Clearly define and notify emergency exits Passage ways must always be kept clean and clear Regularly check and refill fire extinguishers Exercise fire drill regularly 		
Solid Waste	 Pieces of nylon fabric Pieces of thread cuts, needle cuts Packing waste Plastic waste General waste 	 Packing nylon fabric waste in bags Cleaning continuous and regularly Stacking waste bags systematically Calling waste collector regularly Providing adequate dust bins 		
Physical hazard	-Injury from overweight lifting - Contact with cutting machine - Injury by needle - Operation of generator and machine	Using necessary lifting and carrying a apparatus and machinery Using metal hand gloves for cuttir machine operators Installing needle guards Carrying out regular maintenance works for all the equipment and generator Installation cover in generator room for poice.		
Machinery hazard	- Operation machine	noise 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	- Operation of fabric	1.Wearing necessary PPE (goggle, gloves)		
dust	settling	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		

7 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 dust

7.1 FIRE HAZARD

Fire is the greatest threat for garment factories around the world. Raw material used in garment factory, fabric, is highly flammable. 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. Boiler, diesel for machines are also associated with fire hazard.

Table 34. 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 35. Management Actions for Fire Hazard

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

Table 36. Implementation Plan for Fire Hazard

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

Table 37. Monitoring Plan for Fire Hazard

Sr.	Parameter	Location	Frequency	Method	Responsibility
1	Strictly prohibit	Within	Daily	Visual	HR Dept
	smoking within	factory		inspection	
	factory compound	compound			
2	Clearly define and	Factory	Daily	Inspection	HR Dept
	notify emergency	compound			
	exits				
3	Passage ways must	Passage	Daily	Visual	HR Dept
	always be kept	ways		inspection	
	clean and clear				
4	Regularly check	Fire	Daily	Inspection	HR Dept
	and refill fire	extinguisher			
	extinguishers	within the			
		factory			
		compound			
5	Exercise fire drill	Fire drill	3 times/yr	Inspection	HR Dept
	regularly	within the			
		factory			
		compound			

Table 38. Projected Budget for OSH

Sr.	Management Actions	Budget
1	Regularly check and refill fire extinguishers	2,100,000/3 yrs

7.2 PHYSICAL HAZARD

Primary physical hazard issues related to Jessie Myanmar Apparel Manufacturing Company Limited is: overweight lifting at receiving raw materials and transporting products; hazard for injury from cutting machines; Ergonomic injury from prolong standing or sitting.

Table 39. 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	
		2. Using metal hand gloves for cutting machine	
		operators	
		3. Installing machine guards	
		4. Regular maintenance of exhaust and ceiling fan	

Table 40. Management Actions for Physical Hazard

Sr.	Mitigation Measures	Management Actions
1	Using necessary lifting and	Regular inspection and supervision
	carrying aid apparatus and	
	machinery	
2	Using metal hand gloves for	Regular inspection and supervision
	cutting machine operators	
3	Installing and regular maintenance	Regular inspection and replacement
	of machine guards	
4	Regular maintenance of exhaust	Annually inspection and maintenance of
	and ceiling fan	exhaust and ceiling fan

Table 41. 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	for cutting machine operators	Monthly	Project life	Maintenance
3	Installing machine guards	Once	Project Life	HR Dept
4	Regular maintenance of exhaust and ceiling fan	Annually	Project life	Maintenance

Table 42. Monitoring Plan for Physical Hazard

Sr.	Parameter	Location	Frequency	Method	Responsibility
1	Using necessary	Loading/	Daily	Inspection	HR Dept
	lifting and carrying	Unloading			
	aid apparatus and	area			
	machinery				
2	Using metal hand	Production	Daily	Inspection	HR Dept
	gloves for cutting	lines			
	machine operators				
3	Installing machine	Production	Monthly	Inspection	Maintenance
	guards	lines			
4	Regular	Exhaust	Monthly	Inspection	Maintenance
	maintenance of	fans			
	exhaust and ceiling				
	fan				

Table 43. Projected Budget for Physical Hazard

Sr.	Management Actions	Budget
1	Using necessary lifting and carrying aid apparatus and	30,000
	machinery(hand hydraulic trolley)	
2	Using metal hand gloves for cutting machine operators	300,000/yr
3	Installing machine guards	300,000
4	Regular maintenance of exhaust and ceiling fan	300,000/yr

7.3 SOLID WASTE

The garment factory produces solid wastes mainly comprised of nylon fabric cuts and yarn. These wastes are valuable for reuse in places such as stuffing for pillow and doll. But the solid waste from Jessie Myanmar Apparel Manufacturing Company Limited is discharged by calling solid waste collector as like YCDC. Domestic solid waste generation from Jessie Myanmar Apparel Manufacturing Company Limited is low. Systematic management of this solid waste is of importance as mismanagement of the waste will lead critical occupational hazard including fire hazard.

Table 44. 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
		2. Packing wire cutting waste in bags
		3. Stacking waste bags systematically
		4. Calling waste collector regularly
		5. Providing adequate dust bins

Table 45. Management Actions for Solid Waste

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

Table 46. Implementation Plan for Solid Wastes

Sr.	Management Action	Frequency	Duration	Responsibility
1	Cleaning continuously and regularly	Daily	Project life	Production Dept
2	Packing wire cutting waste in bags	Daily	Project life	Production Dept
3	Stacking waste bags systematically	Daily	Project life	Production Dept
4	Calling waste collector regularly	Weekly	Project life	Production Dept
5	Providing 20 dust bins	Once	Project life	Plant Manager

Table 47. Monitoring Plan for Solid Wastes

Sr.	Parameter	Location	Frequency	Method	Responsibility
1	Cleaning	The whole	Daily	Inspection	Production
	continuously and regularly	plant			Dept
2	Packing wire cutting waste in bags	Inspection	Daily	Inspection	Production Dept

3	Stacking waste bags	Inspection	Daily	Inspection	Production
	systematically				Dept
4	Calling waste collector regularly	Inspection	Weekly	Inspection	Production Dept
5	Providing minimum 20 dust bins	Inspection	Once	Record	Plant Manager

Table 48. Projected Budget for Solid Wastes

Sr.	Management Actions	Budget
1	Providing 20 dust bins	100,000

7.4 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 49. 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 50. Management Actions for Noise and Vibrations

Sr.	Mitigation Measures	Management Actions
1	Carrying out regular maintenance	1. Carrying out annual overall maintenance
	works for all the equipment and	work
	generator	

2	Installation	cover	in	generator	1. Installation cover in generator room
	room for noi	ise			

Table 51. Implementation Plan for Noise

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

Table 52. Monitoring Plan for Noise and Vibrations

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

Table 53. 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

7.5 MACHINERY HAZARD

Many types of machinery such as sewing machine, cutting 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 54. 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 55. Management Actions for Machinery Hazard

Sr.	Mitigation Measures	Management Actions
1	Implementation of	1.Providing necessary PPE (goggle, hand
	machinery hazard	gloves, ear muffs)
	safety measures	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 56. Implementation Plan for Machinery Hazard

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

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

Table 57. Monitoring Plan for Machinery Hazard

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

	maintaining				
	machine.				
3	Regular inspection	Workplace	Daily	Project life	Engineering
	and cleaning of				Department
	debris, dusts and				
	oils on machine				
	components				
4	Regular inspection	Workplace	Check and	Project life	Engineering
	of lubricant leakage		refill		Department
	and refilling as				
	necessary				
5	Clearing work	Workplace	Daily	Project life	Engineering
	place of flammable				Department
	materials before				
	using machine			7	
6	Installation safety	All of	Once	Project life	Engineering
	guard on machine	machine		5 1 110	Department
7	Regular inspection		Weekly	Project life	Engineering
	and maintaining for	machine			Department
	belt, gears,				
	sprockets, chains,				
	and other moving				
0	parts.	A 11 - C	Chastr 1	Duois at 11.6	Engineering
8	Systematically installing machine	All of		Project life	Engineering
	installing machine	machine	repair		Department
0	parts Regular inspection	A 11 ~ £	Dailer	Droingt life	Engineering
9	Regular inspection	All of	Daily	Project life	Engineering
10	of power cable	machine		D : .110	Department
10	Preparing	Factory	Once	Project life	Engineering
	checklist, warning	area			Department

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

Table 58. Projected Budget for Machinery Hazard

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

7.6 EMISSION DUST

Type of dust and odor generated from raw material storing, cutting area. 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 59. 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	1. Environmental Conservation Law Paragraph (14, 15)
	Requirements	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 60. Management Actions for dust emission

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

5.	Cleaning with dust collector	1. Providing dust collector

Table 61. 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 62. 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 63. Projected budget for emission to dust

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

7.7 PROJECTED BUDGETS FOR MANAGEMENT AND MONITORING PLAN

Projected budget for implementation of EMP management actions and monitoring requirements could be summarized from detailed particulars described in previous section of the report. Jessie Myanmar Apparel Manufacturing Company Limited will allocate 720,000 kyats total of one-time cost and 4,000,000 kyat of annual recurring cost for successful implementation and monitoring of the EMP. If the estimated budget isn't enough, Jessie Myanmar Apparel Manufacturing Company Limited, will be used by adding the enough budgets as necessary.

Table 64. Project Budgets for Implementation and Monitoring of EMP

Sr.	Management Actions	Budget
1	Regularly check and refill fire extinguishers	(700,000/yr)
2	Using necessary lifting and carrying aid apparatus and machinery(hand hydraulic trolley)	30,000
3	Using metal hand gloves for cutting machine operators	300,000/yr
4	Installing machine guards	300,000
5	Regular maintenance of exhaust and ceiling fan	300,000/yr
6	Providing 20 dust bins	100,000
7	Installing cover in generator room	60,000
8	Carrying out annual overall maintenance work	1,000,000/yr
9	Regular inspection and maintaining for belt, gears, sprockets,	500,000/yr
	chains, and other moving parts.	

10	Install emergency stop devices on machine to enable workers	30000
	to shut off the equipment within easy reach of workers in an	
	emergency	
11	Providing face mask and helmet adequately for workers	120,000/yr
	working at material handling areas	
12	Providing dust collector	200,000
Total One Time Cost		720,000
Total Recurring Cost		4,000,000

8 ENVIRONMENTAL AND SOCIAL MANAGEMENT SUB PLAN

8.1 Environmental Management Team

An environmental management team will be established for successful implementation of the environmental management plan. Jessie Myanmar Apparel Manufacturing Company Limited is responsible for complete implementation of the EMP and will carry out environmental monitoring programmed which is part of the EMP. The objectives of the Environmental Management Team are:

- (a) To assure systematic implementation of EMP throughout project life, and
- (b) To monitor and review effectiveness of EMP regularly

Table 65. Environmental Management Team

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

8.2 ROLES AND RESPONSIBILITIES

8.2.1 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 EMP review process together with the environmental management team so that effectiveness of EMP is assured.

8.2.2 Heads of Departments

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

8.3 Training, Awareness And Competence

This plan describes the provisions of training to ensure that any people working for or on behalf of Jessie Myanmar Apparel Manufacturing Company Limited involved in the activities covered by the scope of the EMP are properly trained to carry out their assigned duties in a manner that will not cause deviation from company environmental policy.

Table 66. Training Requirement

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

5	Fire Fighting Training	All employee	40 hours
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This procedure applies to EMP related training for staff and any persons working for or on behalf of Jessie Myanmar Apparel Manufacturing Company Limited involved in the activities covered by the scope of the EMP Jessie Myanmar Apparel Manufacturing Company Limited 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 EMP 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 EMP effectively.

8.4 EMERGENCY PREPAREDNESS AND RESPONSE PLAN

8.4.1 Emergency 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.

8.4.2 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.

8.4.3 Preparation for Emergencies

8.4.3.1 Training

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

8.4.3.2 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

8.4.3.3 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.

8.4.3.4 Evacuation

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

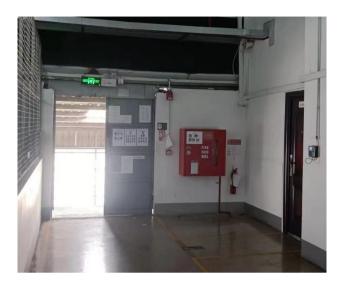


Figure 29. Emergency exits sign are installed

8.4.3.5 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.

8.4.3.6 Emergency Contact

Emergency contact should understand which loved ones to inform about your condition and what information to pass on, if any. Some emergency situations may arise from private medical conditions or procedures.

22 emergency phone numbers to have handy

- 911. This is a number that most people should know by heart. ...
- 112. An alternative to 911, 112 is also an emergency telephone number
- Local police department. ...
- Hospital....
- Family doctor. ...
- Poison control. ...
- Animal poison control. ...
- Veterinarian.

8.4.3.7 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.

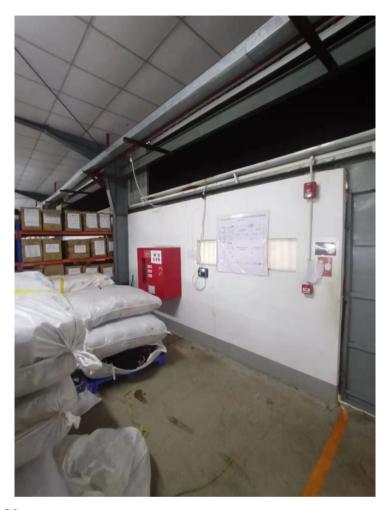


Figure 30. Fire Hose Cabinets and Fire Alarm Is Provided for Emergency Cases



Figure 31. Constructed firefighting unit with high pressure pump

8.4.3.8 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.

8.4.3.9 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:

- 1. 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
- 2. Constricting accessories such as bracelets, rings, watches or clothing are to be gently removed from the injured area before it starts to swell
- 3. Cover the burned/scalded area with sterile dressing
- 4. 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.

8.4.3.10 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:

- 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;
- a. 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;

- b. Flush chemical burns with water until all burning pain has stopped. Remove all contaminated clothes.
- c. 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;
- d. 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;

8.4.4 Emergency of Electric Shock

8.4.4.1 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.

8.4.4.2 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

8.4.4.3 Preparation for Emergencies

8.4.4.3.1 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.

8.4.4.3.2 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.

8.4.4.3.3 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.

8.4.4.3.4 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.

8.4.4.3.5 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.



Figure 32. Electrical Hazard Emergency Equipment

8.4.4.3.6 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.

8.4.4.3.7 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.

8.4.4.3.8 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

8.5 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.
- 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.

8.6 FACTORY DECOMMISSIONING MANAGEMENT PLAN

8.6.1 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.

8.6.2 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.

8.6.3 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.

8.6.4 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.

9 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 Jessie Myanmar Apparel Manufacturing Company Limited. The documents under the EMP include but are not limited to:

- EMP Report
- Mitigation Measures and Management Actions
- Environmental Monitoring Programme
- Registers of Legal and Other Requirements
- External documents including legislation, professional guides and code of practices, etc.

9.1 PUBLIC CONSULTATION AND DISCLOSURE

Jessie Myanmar Apparel Manufacturing Company Limited. is located at Plot No. (130), Myay Taing Block No- Zone No(2), Industrial Zone, Hlaing Tharyar Township, Yangon Region, Myanmar. The project will include industrial zone management committee meetings;

Compliance with departmental inspections; other departmental officials in the vicinity of the project; Special emphasis is placed on building good relationships with other business people and the public.

9.2 RESULTS OF PUBLIC CONSULTATION

Departmental officials, officials from the Zone Management Committee; Regular consultations will be held with the people in the area and public opinion will be taken to ensure that there is no harm to the environment and the socio-economy.

9.3 DISCLOSURE OF INFORMATION ON PUBLIC CONSULTATION; THE PLAN WILL BE IMPLEMENTED IN ACCORDANCE WITH THE REQUIREMENTS

The factory will have a suggestion box to provide public feedback on the project at all times. The guidelines of the Industrial Zone Committee and relevant departments will always be followed. Project announcements will be made in real time at the Industrial Zone Committee Office and the factory notice board.

9.4 CSR ACTIVITIES OF JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED

CSR activities of Jessie Myanmar Apparel Manufacturing Company Limited are managed to develop socio-economic and humanity life. The net profit of this business is used for corporate social responsibility and table is shown in below.

Table 67. CSR Activities Jessie Myanmar Apparel Manufacturing Company Limited

No	Plan	Percent of CSR budgets
1	Supporting for education	20%
2	Supporting for road preparing	20%
3	Supporting for township development	20%

4	Supporting for environmental conservation and	20%
	cleaning	
5	Supporting for human care and rescue	20%

9.5 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 forward suggestions on environmental matters.

9.5.1 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 EMP team and to have more transparent, local authorities and Communities leaders shall be invited to the brewery once in a year to share update environment management procedures.

9.5.2 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.

10 CONCLUSIONS AND RECOMMENDATIONS

Six key environmental impacts can be occurred from the project objectivities. Jessie Myanmar Apparel Manufacturing Company Limited should be reduced and monitored on these environmental impacts by following specifically the impacts management and monitoring plan described in EMP report. 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. The project is committed to the environmental management plan report; Environmental impact reduction activities and programs will be fully and continuously followed. When the project works are completed and the project works are closed, it will be done to minimize the impact on the social environment. If there is damage, measures to minimize the damage. Socio-economic cooperation measures will be implemented.

11 MANAGEMENT REVIEW

A process that will review the results of the implementation of EMP 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 Jessie Myanmar Apparel Manufacturing Company Limited will be the responsible person of management review process. She 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 Certificate of Incorporation and MIC Certificate



ကုမ္ပဏီမှတ်ပုံတင်လက်မှတ် Certificate of Incorporation

JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED
Company Registration No. 124418658

မြန်မာနိုင်ငံကုမ္ပဏီများဥပဒေ၂၀၁၇ အရ

JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED
အား ၂ဝ၂ဝ ခုနှစ် ဇန္နဝါရီလ ၂ဝ ရက်နေ့တွင်
အစုရှယ်ယာအားဖြင့် တာဝန်ကန့်သတ်ထား သည့် အများနှင့်မသက်ဆိုင်သောကုမ္ပဏီ
အဖြစ် ဖွဲ့စည်းမှတ်ပုံတင်ခွင့်ပြုလိုက်သည်။

This is to certify that

JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED

was incorporated under the Myanmar Companies Law 2017 on 20

January 2020 as a Private Company Limited by Shares.

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ကုမ္ပဏီမှတ်ပုံတင်အရာရှိ

Registrar of Companies

ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန

Directorate of Investment and Company Administration





ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော် ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ

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	(c)	ရင်းနှီးမြှုပ်နှံသူ/ကမကထပြုသူအမည် MS. TAN, DAN
	(J)	နိုင်ငံသား CHINESE
	(5)	နေရပ်လိပ်စာ 7,4 ROAD, TIE PARK, SHENGZHOU, ZHEJIANG PROVINCE,
		THE PEOPLE'S REPUBLIC OF CHINA
	(9)	ပင်မအဖွဲ့ အစည်းအမည်နှင့်လိပ်စာ JESSIE MYANMAR APPAREL
		MANUFACTURING COMPANY LIMITED, မြေကွက်အမှတ်– ၁၃၀၊ မြေတိုင်း
		ရပ်ကွက်အမှတ်– ဇုန်(၂)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်း ဒေသကြီး
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		ရပ်ကွက်အမှတ်–
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	(99)	မြန်မာနိုင်ငံတွင်ဖွဲ့ စည်းမည့်ကုမ္ပဏီအမည် JESSIE MYANMAR APPAREL
		MANUFACTURING COMPANY LIMITED



المارين

(မြိုးမင်းသိန်း) ဥတ္တဋ္ဌ



THE REPUBLIC OF THE UNION OF MYANMAR

Yangon Region Investment Committee

ENDORSEMENT

Endorsement	No.	YGN	397	/2020

Date 15 July 2020

This endorsement is issued by Yangon Region Investment Committee in accordance with Section 25(d) of the Myanmar Investment Law-

ordanc	e with Section 25(d) of the Myanmar Investment Law-
(1)	Name of Investor MS. TAN, DAN
(2)	Citizenship CHINESE
(3)	Residence Address 7,4 ROAD, TIE PARK, SHENGZHOU, ZHEJIANG
	PROVINCE, THE PEOPLE'S REPUBLIC OF CHINA
(4)	Name and Address of Principal Organization JESSIE MYANMAR
	APPAREL MANUFACTURING COMPANY LIMITED, PLOT NO. (130), MYAY
	TAING BLOCK NO. ZONE(2), INDUSTRIAL ZONE, HLAING THAR YAR
	TOWNSHIP, YANGON REGION
(5)	Place of Incorporation MYANMAR
(6)	Type of business MANUFACTURING OF KNITTED WEAR ON CMP BASIS
(7)	Place(s) of investment Project PLOT NO. (130), MYAY TAING BLOCK NO.
	ZONE(2), INDUSTRIAL ZONE, HLAING THAR YAR TOWNSHIP, YANGON
	REGION
(8)	Foreign Capital Amount US\$ 4.069 MILLION
(9)	Period for Foreign Capital to be brought in WITHIN TWO YEARS FROM
	THE DATE OF ISSUANCE OF ENDORSEMENT
(10)	Total Amount of Capital (Kyat) EQUIVALENT IN KYAT OF US\$ 4.069
	MILLION
(11)	Construction/ Preparation Period 1 YEAR
(12)	Validity of Endorsement 10 YEARS
(13)	Form of Investment WHOLLY FOREIGN OWNED
(14)	Name of Company Incorporated in Myanmar JESSIE MYANMAR
	APPAREL MANUFACTURING COMPANY LIMITED





(Phyo Min Thein)
Chairman

APPENDIX 2 ESC Profile

Environment Service Collection Company Limited

သို့ _{ervice Cညွှန်ကြားရေးမှူးချုပ်} ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊

> စာအမှတ်၊ ESC – consultant / 002 ရက်စွဲ ၊ ၂၀၂၁ ခုနှစ်၊ ဇန်နဝါရီလ (🗤)ရက်

အကြောင်းအရာ။

ကြားကာလအကြံပေးလုပ်ကိုင်သူ အမည်စာရင်း ပြင်ဆင်ဖြည့်စွတ်

ခွင့်ပြုနိုင်ပါရန် တင်ပြခြင်း။

ကျွန်တော်များ Environment Service Collection Co., Ltd (ESC) သည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနသို့ ကြားကာလအကြံပေးလုပ်ကိုင်သူ မှတ်ပုံတင်ခြင်း အထောက်အထားရရှိရေးအတွက် (၆.၇.၂၀၂၁)ရက်နေ့တွင် စာအမှတ်(၅၁၁၂/၂၀)ဖြင့် တင်ပြ ထားရှိပြီးဖြစ်ပါသည်။

ယခုအခါ ကျွန်တော်များ Environment Service Collection Co., Ltd (ESC) သည် ယခင်တင်ပြထားရှိသည့် ကျွမ်းကျင်သူဝန်ထမ်းများထဲတွင် ကျန်းမာရေးမကောင်း၍ ကွယ် လွန်သူရှိခဲ့ပါသည်။ ယခုလက်ရှိ ပတ်ဝန်းကျင်အစီရင်ခံစားများရေးသားရာတွင် ကျွမ်းကျင် ပညာရှင်များ ထပ်မံဖြည့်ဆည်းလိုပါ၍ ကျွမ်းကျင်ပညာရှင်များ၏ လျှောက်ထားလွှာ၊ မှတ်ပုံတင်၊ ပညာအရည်အချင်း၊ အတွေ့အကြုံများနှင့်တကွ ကြားကာလအကြံပေးလုပ်ကိုင်သူ အမည်စာ ရင်းများအား ပြင်ဆင်ဖြည့်စွတ်ခွင့်ပြုနိုင်ပါရန် ရှိသေလေးစာစွာဖြင့် တင်ပြလျှောက်ထား အပ်ပါ သည်။

ပူးတွဲပါ - Transitional_forms_Organization လျှောက်လွှာ (၁) စုံ

- Transitional_forms_Person လျှောက်လွှာ (၈) စုံ
- လျှောက်လွှာ Soft Copy CD (၁) ခွေ

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20.01.2021

Managing Director onment Service Collection Co., Ltd.

aw Sein Shwe Oo

TRANSITIONAL CONSULTANT REGISTRATION FORM FOR ORGANIZATION

This form was set out by ECD-MOECAF in accordance with Article 17 (a) of EIA Procedure No. 616/2015, i.e. smooth application and registration for organization who wishes to undertake an IEE / EIA study during the transitional period — until coming into force of "Consultant Registration Scheme".

SECTION A - ORGANIZATIONAL PROFILE

Information of the Representative of the Organization Full Name (Sur name, Given name) Daw Sein Shwe Oo Courtesy Title (Prof. Dr. Mr., Mrs., Ms) Mrs. Position Managing Director Date of birth 18.10.1991 Identity card number (Citizen 9/KAMASA(N)018376 Myanmar) Passport number (Foreigners only) Name of Organization **Environment Service Collection Company Limited** Company Registration Number issued by Ministry of National Planning and Economic Development**

Office Address:

No.(7/A), 7 Floor, 95 Residence, Block 95(Kha)< Kyaik Waing Pagoda Road, Mayangone Twonship

Postcode: Country: Myanmar

Contact Information:

Telephone (office): E mail: volky.v@gmail.com

Fax (office): - Mobile phone: 09-444016891

^{*} A copy of ID card or Passport shall be attached to this form.

^{**} A copy of the certificate of incorporation shall be attached to this form.

SEC	SECTION B - PEOSONAL PROFILE OF THE CONSULTANTS IN THE ORGANIZATION (SELECTED CONSULTANTS)	E OF THE C	ONSULTANTS IN TH	E ORGANIZATION (SELECTI	ED CONSULTANTS	
Serial No	Full Name	Courtesy Title	Date of birth	Identify card number (Citizen in Myanmar only)*	Passport Number (Foreigner only)**	Job title
۳.	Daw Sein Shwe Oo	Mrs.	18.10.1991	-		Consultant
7	U Aung Than Oo	Mr.	15.03.1998	9/KAMASA(N)047950		Consultant
က်	Daw Yin Yin Htun	Mrs.	28.04.1992	9/KHAAHZA(N)016858		Consultant
4.	Daw Thida Win	Mrs.	11.08.1978	12/UKAMA(N)003251		Consultant
5	U Ye Myat Phone Kyaw	Mr.	08.03.1995	12/TKA(N)180166		Consultant
o.	Daw Hia Hia Htay	Mrs.	18.07.1973	12/LAMANA(N)120984		Consultant
7.	U Aung Khaing San	Mr.	24.01.1999	5/WALANA(N)184138		Consultant
ω̈́	U Kyaw Swar Linn	Mr.	24.04.1993	1/BAMANA(N)091057		Consultant

* *

A Copy of ID card must be attached to this form. A Copy of Passport must be attached to this form.

Area of Expertise a) Air Pollution Control;	Ecology and Biodiversity; Facilitation of meeting; Geology and Soil:	Ground water and Hydrology;	Legal Analysis; Meteorology, Modeling for Air Quality; Modeling for Water Quality;	Noise and Vibration; Risk Assessment and Hazard Management; Socio-Economy; Water Pollution Control	Waste Management; and Others				
a) (B	<u> </u>	0	962	⊋≥Ê´	Ê Ô				
Area of Expertise*	Facilitation of meeting Risk Assessment and Hazard Management		Facilitation of meeting Geology and Soil	Risk Assessment and Hazard Management;	Ecology and Biodiversity Facilitation of meeting	Air Pollution Control Meteorology, Modeling for Air Quality Socio-Economy Waste Management	Ecology and Biodiversity Facilitation of meeting	Geology and Soil Land use Modeling for Water Quality Water Pollution Control Ground water and Hydrology Noise and Vibration	Legal Analysis
Full Name	Daw Sein Shwe Oo		U Aung Than Oo	Daw Yin Yin Htun	Daw Thida Win	U Ye Myat Phone Kyaw	Daw Hla Hla Htay	U Aung Khaing San	U Kyaw Swar Linn
Serial No.	~		2	е	4	ro .	φ	7	ω

* The Consultants are allowed to select up to four (5) areas (at least one (1) area shall be selected) from the list of areas of expertise iii

SECTION C: ACADEMIC QUALIFICATIONS*

Serial No. : 001

Full name of the Selected Consultant: Daw Sein Shwe Oo

Description of subject areas studied	Myanmar English Law
Title of degree /	LL.B
Institution	Yangon University
Course title	Bachelor of Law
Full or part time	Distance
Year	2019
Year	2012

Serial No.: 002

Full name of the Selected Consultant: U Aung Than Oo

Year Year Started completed	Full or part time	Course title	Institution	Title of degree	Description of subject areas studied
2019	Full Name	Geography	Yangon University	B.A(Geography) Geography English	Geography English

Serial No.: 003

Full name of the Selected Consultant: Daw Yin Yin Htun

Description of subject areas studied	Anatomy, Physiology Biochemistry, pathology Microbiology Pharmacology, Forensic Medicine, Preventive and Social Medicine, Medicine ,Surgery, Obstetric and Gynecology Pediatric
Title of degree /	M.B.B.S
Institution	Medical University Mandalay
Course title	M.B.B.S
Full or part time	Full Name
Year completed	2015
Year Started	5009

Serial No.: 004

Full name of the Selected Consultant: Daw Thida Win

Description of subject areas studied	English Chemistry Zoology Botany
Title of degree	B.Sc(Zoology)
Institution	Dagon University
Course title	Specialized in Zoology
Full or part time	Distance
Year	2001
Year	1997

Serial No.: 005

Full name of the Selected Consultant: U Ye Myat Phone Kyaw

Jree areas studied areas	Environmental Consultant (Project Engineer), OSHE Service Co., Ltd IRAD Innovation Environmental Services Co., Ltd (December 2018 - 2019)HSE supervisor, PEB Myanmar Co.,Ltd, Thilawa (Present)
Title of degree	B.E(Chemical)
Institution	Technological University (Thanlyin)
Course title	Chemical Engineering
Full or part time	Distance
Year completed	2016
Year Started	2012

Serial No.: 006

Full name of the Selected Consultant: Daw Hia Hia Htay

Description of subject areas studied	English Botany Paper (1,2,3) Zoology Chemistry
Title of degree / certffcate***	B.Sc (Botany)
Institution	Yangon
Course title	Botany
Full or part time	Distance
Year	2001
ear	1996

Serial No.: 007

Full name of the Selected Consultant: U Aung Khaing-San

Description of subject areas studied	Myanmar English Geology
Title of degree /	B.Sc (Geology)
Institution	Shwebo University
Course title	Geology
Full or part time	Distance
Year completed	2019
Year Started	2015

Description of subject areas studied	Myanmar English Law
Title of degree /	L'L.B
Institution	Yadanabon University
Course title	Bachelor of Law
Full or part time	Distance
Year completed	2011
ar rted	2006

^{*} Every Selected Consultant listed in 'Section B - PEOSONAL PROFILE OF THE CONSULTANTS OF THE ORGANIZATION ' must fill in this form.
** Please ensure copies of certificates or any proof of the academic qualification are enclosed. If those supporting evidence is written in other than Myanmar or English language, those shall be provisionally translated into Myanmar or English language.

SECTION D: WORKING EXPERIENCE*

Serial No.: 001

Full name of the Selected consultant: Daw Sein Shwe Oo

	Olganization of client	Position	Responsibilities	the organization / client
1year	MYANMAR LIN ZHAN SHOE CO., LTD	Quality	Assisting factory manager to perform regular quality check for finishing product, preparing report	U Paing No.91/96,Kwin -17, Sint Kaing Township, Kyauk Se District, Mandalay
1year	YONGAN (MYANMAR) FASHION CO., LTD	Code of conduct specialist	Law reviewing, managing documents, lecturing COC, participate and accomplished	Plot No.409, U phoe Hlaing Street, Shwe Lin Ban Industrial Zone, Hlain Tharyar T/S, Yangon
Syear	SUNTIME JCK CO., LTD	Code of conduct specialist	Law reviewing, managing documents, lecturing COC, participate and accomplished	Plot(88/90)Myay Taing Quarter No-39 Than Chat Wan U Nyunt Stree, Shwe Pyi Thar Industrial Zone, Shwe Pyi Thar Township Yangon.Myanmar.

^{*}Every selected Consultant listed in 'Section B - PEOSONAL PROFILE OF THE CONSULTANTS OF THE ORGANIZATION ' must fill in this form,

Serial No. : 002

Full name of the Selected consultant: U Aung Than Oo

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization / client
1year	MYANMAR LIN ZHAN SHOE CO., LTD	Quality	Assisting factory manager to perform regular quality check for finishing product, preparing report	U Paing No.91/96,Kwin -17, Sint Kaing Township, Kyauk Se District, Mandalay
1year	YONGAN (MYANMAR) FASHION CO., LTD	Code of conduct specialist	Law reviewing, managing documents, lecturing COC, participate and accomplished	Plot No.409, U phoe Hlaing Street, Shwe Lin Ban Industrial Zone, Hlain Tharyar T/S, Yangon

*Every selected Consultant listed in 'Section B - PEOSONAL PROFILE OF THE CONSULTANTS OF THE ORGANIZATION ' must fill in this form.

SECTION D: WORKING EXPERIENCE*

Serial No.: 003

Full name of the Selected consultant: Daw Yin Yin Htun

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization / client
2015-2020	Mandalay General Hospital	Item Junior	Healthy of Public	Mandalay General Hospital

^{*}Every selected Consultant listed in 'Section B - PEOSONAL PROFILE OF THE CONSULTANTS OF THE ORGANIZATION ' must fill in this form.

Serial No.: 004

Full name of the Selected consultant: Daw Thida Win

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization / client
2013-2015	TUV Co., Ltd	Auditor	Social Compliance Auditor	TUV Co., Ltd. Ms. Mau Guo
2015-2018	North Shore Co., Ltd	Accountant	Cash Controller Financial Statement	North Shore Co., Ltd.
2018-2021	Ally For Sustainable League Co., Ltd	Deputy General Manager	Cash Controller, Financial Statement Environment Sector	Daw Cherry Aung Service.mm.asl01@gmail.com

^{*}Every selected Consultant listed in 'Section B - PEOSONAL PROFILE OF THE CONSULTANTS OF THE ORGANIZATION ' must fill in this form.

SECTION D : WORKING EXPERIENCE*

Serial No.: 005

Full name of the Selected consultant: U Ye Myat Phone Kyaw

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization / client
1year	IRAD Innovation and Technical service	Project Engineer	Analysis, sampling, site survey and reporting EMP, EIA	Phyo Phyosan1996@gmail.com
6 months	PEB Steel	HSE supervisor	Occupational safety and health, Environmental	Aye Naing ayenaing75@gmail.com

Serial No.: 006

Full name of the Selected consultant: Daw Hia Hia Htay

^{*}Every selected Consultant listed in 'Section B - PEOSONAL PROFILE OF THE CONSULTANTS OF THE ORGANIZATION ' must fill in this form.

SECTION D: WORKING EXPERIENCE*

Serial No.: 007

Full name of the Selected consultant: U Aung Khaing San

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization / client
1yea r	Ally For Sustainable League Co., Ltd	Office stuff	Site surveying for report, data analyzing	asloperation1@gmail.com

^{*}Every selected Consultant listed in 'Section B - PEOSONAL PROFILE OF THE CONSULTANTS OF THE ORGANIZATION ' must fill in this form.

XIX

Full name of the Selected consultant: Kyaw Swar Linn

Serial No.: 008

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization / client
2012-2017	Ray Photo Studio	Adviser	Photoshop, Design, Photographer	Kantawmingalar Garden, Dagon Township
Every select	*Every selected Consultant listed in 'Section B - PEOSONAL	PEOSONAL PI	PROFILE OF THE CONSULTANTS OF THE ORGANIZATION ' must fill in this form.	ANIZATION ' must fill in this form.

SECTION D: DECLARATION

I hereby apply for registration and agree to observe and abide by the Code of Conduct specified in the final part of this form. I certify that the statements contained in this form and the supporting evidence are correct to the best of my knowledge and belief.

Signature :	Date :
	20.1.2021

CODE OF CONDUCT

All Registered Consultants are obliged to improve the standing of the environmental impact assessment profession by rigorously observing the following Codes of Conduct. Failure to conform may result in suspension or deregistration. All registrants shall:

To act professionally, accurately and in an unbiased manner;

Strive to increase the competence and prestige of the environmental impact assessment profession;

Assist those under my supervision (if relevant) in developing their management, professional and environmental impact assessment skills;

Not to represent conflicting or competing interests and to disclose to any client or employer any

TRANSITIONAL CONSULTANT REGISTRATION FORM FOR PERSON

This form was set out by ECD-MOECAF in accordance with Article 17 (a) of EIA Procedure No. 616/2015, i.e. smooth application and registration for person who wishes to undertake an IEE / EIA study during the transitional period — until coming into force of "Consultant Registration Scheme".

SECTION A - PERSONAL INFORMATION	SECTION	A -	PERSONAL	INFORMATI	ON
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Full Name (Sur name, Given name)	Daw Sein Shwe Oo				
Courtesy Title (Prof, Dr, Mr., Mrs., Ms)	Mrs.				
Date of birth Managing Director					
Identity card number (Citizen in 18.10.1991 Myanmar)*					
Passport number (Foreigners only)*	9/KAMASA(N)018376				
Organization					
Job Title	Environment Service Collection Compa	ny Limited			
* A copy of ID card or Passport must be attached to this form. HOME Address: 6krd Street, Myothit(1).No (Gayi-2/43) Chan Mya Thar Si Township ,Mandalay, Myanmar					
Postcode: Country: Myanmar VORK/ OFFICE Address:					
No.(7/A), 7 Floor, 95 Residence, Block 95(Kha)< Kyaik Waing Pagoda Road, Mayangone Twonship					
Postcode:	Country: Myanmar				
Preferred address: Home W			Work		
Contact Information					

Contact Information:		
Telephone:	E mail: volky.v@gmail.com	
Fax: -	Mobile phone: 09-444016891	

Area of expertise Note: (i) Individual applicant can select up to four (4) areas (at least one (1) area shall be selected) from the list of areas of expertise below.					
(ii) Facilitation of meeting; (iii) Risk Assessment and Hazard Management; (iv) (vi)	Area of Expertise a) Air Pollution Control; b) Ecology and Biodiversity; c) Facilitation of meeting; d) Geology and Soil; e) Ground water and Hydrology; f) Land use; g) Legal Analysis; h) Meteorology, Modeling for Air Quality; i) Modeling for Water Quality; j) Noise and Vibration; k) Risk Assessment and Hazard Management; l) Socio-Economy; m) Water Pollution Control; n) Waste Management; and o) Others				
Team Leading If you have an experience of 'Team Leading', please select the most recent cases up to 3 and describe here the sammarized information of each case:					
Duration	Summary of the case				

Further explanation on your expertise (optional)	
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TRANSITIONAL CONSULTANT REGISTRATION FORM 22-MAR-2016

SECTION B: ACADEMIC QUALIFICATIONS

Description of subject areas studied	Myanmar English Law	
Title of degree / certificate*	LL.B	
Institution	Yangon University	
Course title	Bachelor of Law	
Full or part time	Distance	9
Year	2019	1
Year Started	2012	China Cocolo

^{*}Please ensure copies of certificates or any proof of the academic qualification are enclosed. If those supporting evidence is written in other than Myanmar or English language, those shall be provisionally translated into Myanmar or English language.

SECTION C: WORKING EXPERIENCE

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization /
1year	MYANMAR LIN ZHAN SHOE CO., LTD	Quality Control	Assisting factory manager to perform regular quality check for finishing product,	U Paing No.91/96, Kwin -17, Sint Kaing Township, Kyauk Se District, Mandalay
1year	YONGAN (MYANMAR) FASHION CO., LTD	Code of conduct specialist	Law reviewing, managing documents, lecturing COC, participate and accomplished	Plot No.409, U Phoe Hlaing Street, Shwe Lin Ban Industrial Zone, Hlain Tharyar T/S, Yangon
5year	SUNTIME JCK CO., LTD	Code of conduct specialist	Law reviewing, managing documents, lecturing COC, participate and accomplished	Plot(88/90)Myay Taing Quarter No-39 Than Chat Wan U Nyunt Stree, Shwe Pyi Thar Industrial Zone, Shwe Pyi Thar Township Yangon.Myanmar.

SECTION D: DECLARATION

I hereby apply for registration and agree to observe and abide by the Code of Conduct specified in the final part of this form. I certify that the statements contained in this form and the supporting evidence are correct to the best of my knowledge and belief.

Signature :	Date :
A	20:1.2021
	1

CODE OF CONDUCT

All Registered Consultants are obliged to improve the standing of the environmental impact assessment profession by rigorously observing the following Codes of Conduct. Failure to conform may result in suspension or deregistration. All registrants shall:

To act professionally, accurately and in an unbiased manner;

Strive to increase the competence and prestige of the environmental impact assessment profession;

Assist those under my supervision (if relevant) in developing their management, professional and environmental impact assessment skills;

Not to represent conflicting or competing interests and to disclose to any client or employer any relationship that may influence my judgment;

Not to accept any inducement, commission, gift or any other benefit from any interested party or knowingly allow colleagues to do so:

Not to intentionally communicate false or misleading information that may compromise the integrity of any EIA / IEE study; and

Not to act in a manner detrimental to the reputation of any of the stakeholders including the Ministry and the client.

	FOR OFFICE USE ONLY
Date received:	Attachment: ☐ Copy of ID card or Passport ☐ Professional Resume
Recorded by:	☐ Copies of certificate / any proof for academic qualification (written in or translated into Myanmar or English language)
Additional comments, notes or recommendate	tions (attached if necessary):



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ရန်ကုန်အဝေးသင်တက္ကသိုလ်



ဥ**ං**නේ. Bachelor of Law (LL.B)

၂၀၁၆ ပညာသင်နှစ် ရန်ကု န်အ ေး သင် တက္ကသိုလ်မှ ၃<u>၂</u>၀ ၆	مخطم
အထူးပြုဖြင့် အောင်မြင်ခဲ့သော (ဆာ ဦး ကျော် ၁ ၉ န	
မောင် / မ ပြိုင် ပြို ပြီး ဥပဒေဘွဲ့ ကို အပ်နှင်းလိုက်သည်။	(38):

This is to certify that Sen Share Co sen/ daughter of has been admitted to the Degree of Bachelor of Law (LL.B) in the Academic Year 2016



ပါမောက္ခချပ် န ရန်ကုန်အဝေးသင်တက္ကသိုလ် Rector

Yanogn University of Distance Education Yangon, Myanmar

TRANSITIONAL CONSULTANT REGISTRATION FORM FOR PERSON

This form was set out by ECD-MOECAF in accordance with Article 17 (a) of EIA Procedure No. 616/2015, i.e. smooth application and registration for person who wishes to undertake an IEE / EIA study during the transitional period — until coming into force of "Consultant Registration Scheme".

SECTION A - PERSONAL INFORMATION

Full Name (Sur name, Given name)	U Aung Than Oo		
Courtesy Title (Prof, Dr, Mr., Mrs., Ms)	Data Collector		
Date of birth	15.03.1998		
Identity card number (Citizen in Myanmar)*	9/KAMASA(N)047950		
Passport number (Foreigners only)*			
Organization	Environment Service Collection Compa	ny Limited	
Job Title	Consultant		
* A copy of ID card or Passport must be attace HOME Address:	hed to this form.		
6krd Street, Myothit(1).No (Gayi-2/43) Char	i Mya Thar Si Township ,Mandalay, Myar	nmar	
Postcode:	Country: Myanmar		
WORK/ OFFICE Address:			
No.(7/A), 7 Floor, 95 Residence, Block 95(K	(ha)< Kyaik Waing Pagoda Road, Mayan	gone Twon	ship
Postcode:	Country: Myanmar		
Preferred address: All future correspondence will be sent to the	ne address indicated.	Home	Work
Contact Information : Telephone:09-969888797	E mail: ansontanfcd@gmail.c	com	

<u>Contact Information :</u> Telephone:09-969888797	E mail: ansontanfcd@gmail.com
Fax: -	Mobile phone: 09-263320060

Area of expertise Note: (i) Individual applicant can select up to fouther list of areas of expertise below.	ır (4) areas (at least one (1) area shall be selected) from
(ii) Geology and Soil	Area of Expertise a) Air Pollution Control; b) Ecology and Biodiversity; c) Facilitation of meeting; d) Geology and Soil; e) Ground water and Hydrology; f) Land use; g) Legal Analysis; h) Meteorology, Modeling for Air Quality; i) Modeling for Water Quality;
(iii) Modeling for Water Quality (iv) Water Pollution Control	j) Noise and Vibration; k) Risk Assessment and Hazard Management; l) Socio-Economy; m) Water Pollution Control; n) Waste Management; and e) Others
Team Leading If you have an experience of 'Team Lead describe here the sammarized information	ling', please select the most recent cases up to 3 and of each case:
Duration	Summary of the case

Further explanation on your expertise (optional)	
Δ	
	1

SECTION B: ACADEMIC QUALIFICATIONS

Year Started	Year completed	Full or part time	Course title	Institution	Title of degree / certificate*	Description of subject areas studied
2015	2019	Full Name	Cultural Geography	Yangon University	B.Sc (Geography)	Geography English
Original Property	and of one	tification or on	Discontinuo nomina ne mantenen es antenen esta esta nondomina atradación esta esta esta esta esta esta esta esta	House o cood of the	4 () History () () () () () () () () () (in other than Manager

*Please ensure copies of certificates or any proof of the academic qualification are enclosed. If those supporting evidence is written in other than Myanmar or English language, those shall be provisionally translated into Myanmar or English language.

SECTION C: WORKING EXPERIENCE

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization / client
1year	MYANMAR LIN ZHAN SHOE CO., LTD	Quality Control	Assisting factory manager to perform regular quality check for finishing product, preparing report	U Paing No.91/96,Kwin -17, Sint Kaing Township, Kyauk Se District, Mandalay
1year	YONGAN (MYANMAR) FASHION CO., LTD	Code of conduct specialist	Law reviewing, managing documents, lecturing COC, participate and accomplished	Plot No.409, U phoe Hlaing Street, Shwe Lin Ban Industrial Zone, Hlain Tharyar T/S, Yangon

SECTION D: DECLARATION

I hereby apply for registration and agree to observe and abide by the Code of Conduct specified in the final part of this form. I certify that the statements contained in this form and the supporting evidence are correct to the best of my knowledge and belief.

Date:		
20-01-2021		

CODE OF CONDUCT

All Registered Consultants are obliged to improve the standing of the environmental impact assessment profession by rigorously observing the following Codes of Conduct. Failure to conform may result in suspension or deregistration. All registrants shall:

To act professionally, accurately and in an unbiased manner,

Strive to increase the competence and prestige of the environmental impact assessment profession;

Assist those under my supervision (if relevant) in developing their management, professional and environmental impact assessment skills;

Not to represent conflicting or competing interests and to disclose to any client or employer any relationship that may influence my judgment;

Not to accept any inducement, commission, gift or any other benefit from any interested party or knowingly allow colleagues to do so;

Not to intentionally communicate false or misleading information that may compromise the integrity of any EIA / IEE study; and

Not to act in a manner detrimental to the reputation of any of the stakeholders including the Ministry and the client.

	FOR OFFICE USE ONLY			
Date received:	Attachment: Copy of ID card or Passport Professional Resume Copies of certificate / any proof for academic qualification (written in or translated into Myanmar or English language)			
Additional comments, notes or recommendations (attached if necessary):				





ား ဤကတ်ပြားကို အမြဲဆောင်ထားရသေး ၂၈ ရောက်ဆုံး၊ ပျက်စီးသည့်အခါ သက်ဆိုင်ရာ ရဲစခန်းးမြို့နယ်လူဝင်မကြီးကြင်ရေး နှင့် အခြီးထားခုတ်ပုံတင်ရေးဦးစီးဌာနများမှုံးတို့ ထတင်းပို့ရေညီး ၃။ ဤလက်မှတ်ကို အသက်(၁၅))နှစ်ပြည့်လျှင် လဲလှယ်ရသည်။ ပျက်တွက်ပါတ တရေးယူခြင်းခံရသည်။

ရန်ကုန်အဝေးသင်တက္ကသိုလ်



රිලූානු. Bachelor of Arts

ပညာသင်နှစ် ရန်ကုန်အလေးသင်တက္ကသိုလ်မှ ပထားပြ	
အထူးပြုဖြင့် အောင်မြင်ခဲ့သော (အဘ ြီး လြော္ပြာလြန်း) ၏ သား/ မောင် / ဖု ပြောာင်လြန်း ဦး	သပီး
een 6 / අ <u>6 හොරි හා මි. වී:</u>	3878
ဝိဇ္ဇာဘွဲ့ ကို အပ်နှင်းလိုက်သည်။	

This is to certify that Loung Aung Thon Oo
son/ daughter of Likyous Tun has been admitted
to the Degree of Bachelor of Arts with
Specialization in the Academic Year



ပါမောက္စချပ် မြန်ကုန်အဝေးသင်တက္ကသိုလ်

Rector
Yangon University of Distance Education
Yangon, Myanmar

TRANSITIONAL CONSULTANT REGISTRATION FORM FOR PERSON

This form was set out by ECD-MOECAF in accordance with Article 17 (a) of EIA Procedure No. 616/2015, i.e. smooth application and registration for person who wishes to undertake an IEE / EIA study during the transitional period — until coming into force of "Consultant Registration Scheme".

SECTION A - PERSONAL INFORMA	ATION
Full Name (Sur name, Given name)	Yin Yin Htun
Courtesy Title (Prof, Dr, Mr., Mrs., Ms)	Dr.
Date of birth	28.04.1992
Identity card number (Citizen in Myanmar)*	9/KHAAHZA(N) 016858
Passport number (Foreigners only)*	
Organization	Environment Servicesd Collection Company Limited
Job Title	Consultant
*A copy of ID card or Passport must be atta HOME Address:	
No.(7/A), 7 Floor, 95 Residence, Block 98 Yangon.	5(Kha), Kyaik Waing Pagoda Road, Mayangone Township,

Postcode: 11061,11062,11063 WORK/ OFFICE Address:	Country: Myanmar	
The state of the s	Block 95(Kha), Kyaik Waing Pagoda Road, Mayangone Townshi	p,
Postcode: 11061,11062,11063	Country: Myanmar	
Preferred address: All future correspondence will be	sent to the address indicated.	

Contact Information:		_ Y _	
Telephone:		E mail:	
Fax: -	.980	Mobile phone: 09-406 611 622	

Area of expertise	
Note: (i) Individual applicant can select up to four	(4) areas (at least one (1) area shall be selected) from
the list of areas of expertise below.	
(i) Risk Assessment and Hazard Management	Area of Expertise
wanagement	a) Air Pollution Control;
	b) Ecology and Biodiversity;
	c) Facilitation of meeting;
	d) Geology and Soil;
(ii) Health and Safety	e) Ground water and Hydrology;
	f) Land use;
	g) Legal Analysis;
	h) Meteorology, Modeling for Air Quality;
	i) Modeling for Water Quality;
(iii)	j) Noise and Vibration;
	k) Risk Assessment and Hazard Management;
	I) Socio-Economy;
	m) Water Pollution Control;
	n) Waste Management; and
(iv)	o) Others
(3)	
Team Leading	
If you have an experience of 'Team Leadi	ing', please select the most recent cases up to 3 and
describe here the sammarized information of	of each case:
Duration	Summary of the case
	M = 2 2

Further explanation on your expertise (optional	1)
E	

TRANSITIONAL CONSULTANT REGISTRATION FORM 22-MAR-2016

SECTION B: ACADEMIC QUALIFICATIONS

Year Started	Year completed	Full or part time	Course title	Institution	Title of degree / certificate*	Description of subject areas studied
2009	2015	Time	M.B.B.S	Medical University of Mandalay	M. B.B.S.	Anatomy, Physiology, Biochemistry, Pathology, Microbiology, Pharmacology, Forensic Medicine, Preventive and Social Medicine, Surgery, Obstetrics and Gynecology, Pediatric

*Please ensure copies of certificates or any proof of the academic qualification are enclosed. If those supporting evidence is written in other than Myanmar or English language, those shall be provisionally translated into Myanmar or English language.

SECTION C: WORKING EXPERIENCE

Verification Source – contact details of the organization / client	Mandalay General Hospital		
Responsibilities	Healthy of Public		
Position	Intem Junior		
Organization or client	Mandalay General Hospital		
Period	2015-2020		

>

SECTION D: DECLARATION

I hereby apply for registration and agree to observe and abide by the Code of Conduct specified in the final part of this form. I certify that the statements contained in this form and the supporting evidence are correct to the best of my knowledge and belief.

Signature :	Date :
yarta	20.01.2021

CODE OF CONDUCT

All Registered Consultants are obliged to improve the standing of the environmental impact assessment profession by rigorously observing the following Codes of Conduct. Failure to conform may result in suspension or deregistration. All registrants shall:

To act professionally, accurately and in an unbiased manner;

Strive to increase the competence and prestige of the environmental impact assessment profession;

Assist those under my supervision (if relevant) in developing their management, professional and environmental impact assessment skills;

Not to represent conflicting or competing interests and to disclose to any client or employer any relationship that may influence my judgment;

Not to accept any inducement, commission, gift or any other benefit from any interested party or knowingly allow colleagues to do so;

Not to intentionally communicate false or misleading information that may compromise the integrity of any EIA / IEE study; and

Not to act in a manner detrimental to the reputation of any of the stakeholders including the Ministry and the client,

	FOR OFFICE USE ONLY
Date received:	Attachment: ☐ Copy of ID card or Passport ☐ Professional Resume
Recorded by:	☐ Copies of certificate / any proof for academic qualification (written in or translated into Myanmar or English language)
Additional comments, notes or recommenda	ations (attached if necessary):



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ဆရာဝန်၏ ဓါတ်ပုံ

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ဆေးပတ

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ဆေးပညာဘွဲ့ကို အပ်နှင်းခ<mark>ျီးဖြင့်လိုက်သည</mark>်။

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ပါတောက္ကချစ် ဆေးတက္ကဆိုလ်၊ မန္တလေး

TRANSITIONAL CONSULTANT REGISTRATION FORM FOR PERSON

This form was set out by ECD-MOECAF in accordance with Article 17 (a) of EIA Procedure No. 616/2015, i.e. smooth application and registration for person who wishes to undertake an IEE / EIA study during the transitional period — until coming into force of "Consultant Registration Scheme".

SECTION A - PERSONAL INFORMATION

Full Name (Sur name, Given name)	Thida Win
Courtesy Title (Prof, Dr, Mr., Mrs., Ms)	Mrs.
Date of birth	11.08.1978
Identity card number (Citizen in Myanmar)*	12/UKAMA(N) 003251
Passport number (Foreigners only)*	
Organization	Environment Service Collection Company Limited
Job Title	Consultant

* A copy of ID card or Passport must be attached to this form. HOME Address:

1/421, Mya Yadanar Street (2), North Oakkalar Tsp. Yangon.

Postcode: 11061,11062,11063

Country: Myanmar

WORK/ OFFICE Address:

No.(7/A), 7 Floor, 95 Residence, Block 95(Kha), Kyaik Waing Pagoda Road, Mayangone Township, Yangon.

Postcode: 11061,11062,11063 Country: Myanmar

Preferred address:

Home Work All future correspondence will be sent to the address indicated. $\square \mathscr{V}$

Contact Information:

Telephone:

E mail: jessica.tdwynn@gmail.com

Fax: -

Mobile phone: 09-260 047 224

Area of expertise Note:	
(i) Individual applicant can select up to four	(4) areas (at least one (1) area shall be selected) from
(i) Ecology and Biodiversity (ii) Facilitation of meeting	Area of Expertise a) Air Pollution Control; b) Ecology and Biodiversity; c) Facilitation of meeting; d) Geology and Soil; e) Ground water and Hydrology; f) Land use;
	g) Legal Analysis;h) Meteorology, Modeling for Air Quality;i) Modeling for Water Quality;
(iii)	 j) Noise and Vibration; k) Risk Assessment and Hazard Management; l) Socio-Economy; m) Water Pollution Control; n) Waste Management; and
(iv)	o) Others
Team Leading If you have an experience of 'Team Leading describe here the sammarized information of	ng', please select the most recent cases up to 3 and feach case:
Duration	Summary of the case

Further explanation on your expertise (optional)	
ā	

TRANSITIONAL CONSULTANT REGISTRATION FORM 22-MAR-2016

SECTION B: ACADEMIC QUALIFICATIONS

of subject udjed								
Description of subject areas studied	-English -Chemistry -Zoology							A Water
Title of degree / certificate*	B.Sc (Zoology)							
Institution	Dagon University							
Course title	Specialized in Zoology							
Full or part time	Distance							
Year	2001							
Year Started	1997							

*Please ensure copies of certificates or any proof of the academic qualification are enclosed. If those supporting evidence is written in other than Myanmar or English language, those shall be provisionally translated into Myanmar or English language.

SECTION C: WORKING EXPERIENCE

Verification Source – contact details of the organization / client	TUV Co., Ltd. Ms. Mau Guo May.guo@tuv.com	North Shore Co.,Ltd. Jessica.tdwvnn@amail.com	Daw Cherry Aung Service.mm.asl01@gmail.com
Responsibilities	Social Compliance Auditor	Cash Controller Financial Statement	Cash Controller, Financial Statement Environment Sector
Position	Auditor	Accountant	Deputy General Manager
Organization or client	TUV Co., Ltd	North Shore Co., Ltd	Ally For Sustainable League Co., Ltd
Period	2013-2015	2015-2018	2018-2021

SECTION D: DECLARATION

I hereby apply for registration and agree to observe and abide by the Code of Conduct specified in the final part of this form. I certify that the statements contained in this form and the supporting evidence are correct to the best of my knowledge and belief.

Signature :	1:1	Date :
	Charles I	20:01.2621

CODE OF CONDUCT

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Assist those under my supervision (if relevant) in developing their management, professional and environmental impact assessment skills;

Not to represent conflicting or competing interests and to disclose to any client or employer any relationship that may influence my judgment;

Not to accept any inducement, commission, gift or any other benefit from any interested party or knowingly allow colleagues to do so;

Not to intentionally communicate false or misleading information that may compromise the integrity of any EIA / IEE study; and

Not to act in a manner detrimental to the reputation of any of the stakeholders including the Ministry and the client.

	FOR OFFICE USE ONLY
Date received:	Attachment:
Ligite (epelyed)	☐ Copy of D card or Passport
	☐ Professional Resume
Recorded by:	 Copies of certificate / any proof for academic qualification (written in or translated into Myanmar or English language)
Additional comments, notes or recommen	define (attached if negaciany)







သိပ္ပံဘွဲ့.

၂ဝဝ၁ ပညာသင်နှစ်တွင် ရန်ကုန်အဝေးသင်တက္ကသိုလ်မှ ၁၀တ္တ**ေ**ဒ ဖြင့်အောင်မြင်ခဲ့အော မသိတာဝင်း

(300/ **2;0**0

......) အား <mark>သိပ္ပံဘွဲ</mark>, ကိုအပ်နှင်း<mark>လ</mark>ိုက်သည်။

ပါ**ဖောက္ခရျ**ပ် ရန်ကုန်ဓာစဝးသင်တက္ကသိုလ် 🍣

TRANSITIONAL CONSULTANT REGISTRATION FORM FOR PERSON

This form was set out by ECD-MOECAF in accordance with Article 17 (a) of EIA Procedure No. 616/2015, i.e. smooth application and registration for person who wishes to undertake an IEE / EIA study during the transitional period — until coming into force of "Consultant Registration Scheme".

ECTION A -	PERSONAL	INFORM.	ATION
------------	-----------------	---------	-------

Full Name (Sur name, Given name)	Hla Hla Htay		
Courtesy Title (Prof, Dr, Mr., Mrs., Ms)	Mrs.		
Date of birth	18.07.1973		
Identity card number (Citizen in Myanmar)*	12/LAMANA(N) 120984		
Passport number (Foreigners only)*			
Organization	Environment Service Collection Com	pany Limite	d
Job Title	Consultant		
* A copy of ID card or Passport must be atta HOME Address:	ached to this form.		
No. (281/A) Zayar Thiri (3) Street (16) Quar	ter, Hlaing Tharyar Tsp.		
Postcode:	Country: Myanmar		
WORK/ OFFICE Address:			
No.(7/A), 7 Floor, 95 Residence, Block 95 Yangon.	5(Kha), Kyaik Waing Pagoda Road, Ma	yangone Tov	wnship,
Postcode: 11061,11062,11063	Country: Myanmar		
Preferred address: All future correspondence will be sent to t	he address indicated.	Home □ ✓	Work
		-1,-/	
Contact Information:			
Telephone:	E mail: hlahh117@gmail.com		
Fax: -	Mobile phone: 09-795 530 08	4	

	r (4) areas (at least one (1) area shall be selected) from
the list of areas of expertise below. (i) Ecology and Biodiversity (ii) Facilitation of meeting (iii)	Area of Expertise a) Air Pollution Control; b) Ecology and Biodiversity; c) Facilitation of meeting; d) Geology and Soil; e) Ground water and Hydrology; f) Land use; g) Legal Analysis; h) Meteorology, Modeling for Air Quality; i) Modeling for Water Quality; j) Noise and Vibration; k) Risk Assessment and Hazard Management; l) Socio-Economy; m) Water Pollution Control; n) Waste Management; and o) Others
Team Leading If you have an experience of 'Team Lead describe here the sammarized information of	ling', please select the most recent cases up to 3 and of each case:
Duration	Summary of the case

Further explanation on your expertise (optional)

SECTION B: ACADEMIC QUALIFICATIONS

Description of subject areas studied	-English -Botany Paper (1,2,3) -Zoology -Chemistry	r than Myanmar or
Title of degree / certificate*	B. Sc(Botany)	e ic written in other
Institution	Yangon University	Joseph Jethoco enmonting evident
Course title	Botany	
Full or part time	Distance Botany	
Year	2001	
Year Started	1996	

^{*}Please ensure copies of certificates or any proof of the academic qualification are enclosed. English language, those shall be provisionally translated into Myanmar or English language.

SECTION C: WORKING EXPERIENCE

Verification Source – contact details of the organization / client	Thamine Station Road , Quarter 2, Mayangone, Yangon.		
Responsibilities	Attendance, Over Time, Leave, SSP, EC Contract, Etc.,		
Position	HR Officer		
Organization or client	Waminn Group of Companies		
Period	2016-2019		

>

SECTION D: DECLARATION

I hereby apply for registration and agree to observe and abide by the Code of Conduct specified in the final part of this form. I certify that the statements contained in this form and the supporting evidence are correct to the best of my knowledge and belief.

Signature :	Date :
36	10.0°

CODE OF CONDUCT

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Not to intentionally communicate false or misleading information that may compromise the integrity of any EIA / IEE study; and

Not to act in a manner detrimental to the reputation of any of the stakeholders including the Ministry and the client.

	FOR OFFICE USE ONLY
Date received:	Attachment:
Date received.	☐ Copy of ID card or Passport
	☐ Professional Resume
Recorded by:	☐ Copies of certificate / any proof for academic qualification (written in or translated into Myanmar or English language)
Additional comments, notes or recommendation	ns (attached if necessary):



သိပ္ပံဘွဲ့.

၂၀၀၁ ပညာသင်နှစ်တွင် ရန်ကုန်အဝေးသင်တက္ကသိုလ်မှ

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ဂိုက္ခံရမ်ဖ ဖြင့်အောင်မြင်ခဲ့သော

19 ch cd:

(337/2:000)

့) အာ**း သိပ္ပံဘွဲ့.** ကိုအပ်နှင်းလိုက်သည်။

ပါမောက္ခချုပ် ရန်ကုန်ဓာဝေးသင်တက္ကသိုလ် 🦫

第一外国語学校 DAI ICHI



Post-Graduate Diploma

This is to certify that
has been conferred
the Post-Graduate Diploma in Business Administration
Management by this School.

Registered Graduate No. 3.7.5.3..................





Mon

President DAI ICHI

Foreign Language School

Date 2nd June 2019

Certificate of Completion

THIS IS TO CERTIFY THAT

Ha Hia Htay

HAS SUCCESSFULLY COMPLETED THE

HR On Job Training

On this 28 Day

Day of

Ting Ting

in the Year

2019



BUSINESS INSTITUTE



Founder & Managing Director
PSM Business Institute

Certification ID. PSIN-OJT-00143

THARAPAR COMMUNITY SERVICES



CERTIFICATE OF COMPLETION HLA HLA HTAY

Has Attended And Successfully Completed

Human Resource Management

Held From 2 July 2017 To 20 August 2017



Ye Htet Oo
(Principal)

Wai Yan Tun
(Class Teacher)



Certificate of Achievement

HLA HLA HTAY

12/ La Ma Na (N) 120984

for successfully completing a course of instruction in



STRATEGIC HUMAN RESOURCE MANAGEMENT

has analytical competency with hands-on experiences.

Recruitment & Selection Performance Management **Training & Development Organizational Structure Project Based HRM Employee Retention and Separation Motivation & Leadership Standard Operating Procedures(SOPs) Compensation & Reward Management**

From 20 June 2015 To 18 July 2015



Dr. Than Zaw **Principal**

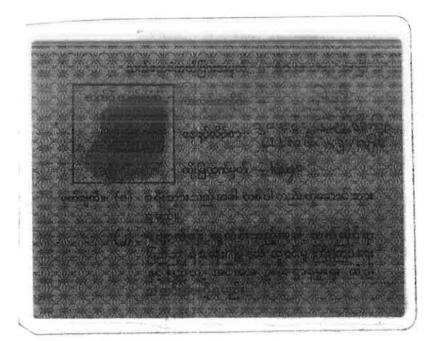
BVSc,EMBA,DIR,DAPsy,DBL,DSW,DMAc

Registered No. 2268

Date Issued: 20 July 2015

18/4B, U Tun Lin Chan St, Kamayut, Yangon, 500027, 504911, 2304255, 09-73156384, talenthighway@gmail.com





TRANSITIONAL CONSULTANT REGISTRATION FORM FOR PERSON

This form was set out by ECD-MOECAF in accordance with Article 17 (a) of EIA Procedure No. 616/2015, i.e. smooth application and registration for person who wishes to undertake an IEE / EIA study during the transitional period — until coming into force of "Consultant Registration Scheme".

SECTION	A - PERS	ONAL INF	ORMATION
	A - I LIVS	CIAC IIII	CINIMINI

Full Name (Sur name, Given name)	U Ye Myat Phone Hlaing					
Courtesy Title (Prof, Dr, Mr., Mrs., Ms)	Mr.					
Date of birth	08.03.1995					
Identity card number (Citizen in Myanmar)*	12/TAKATA(N)180166					
Passport number (Foreigners only)*						
Organization	Environment Service Collection Company Limited					
Job Title	Consultant					
* A copy of ID card or Passport must be attace HOME Address:	hed to this form.					
No.412/B, Manpay (10) Street,3Block Thark	ayya, Yangon, Myanmar					
Postcode:	Country: Myanmar					
WORK/ OFFICE Address:						
No.(7/A), 7 Floor, 95 Residence, Block 95(K	(ha)< Kyaik Waing Pagoda Road, Mayan	ngone Twor	nship			
Postcode:	Country: Myanmar	i c				
Preferred address: All future correspondence will be sent to the	ne address indicated.	Home	Work			
<u>Contact Information :</u> Telephone:	E mail: ymph8395@gmail.co	m				
Fax: -	Mobile phone: 09-797877326					

No.(7/A), 7 Floor, 95 Residence, Block 95(Kha)< Kyaik Waing Pagoda Road, Mayangone Twonship

(i)	f areas of expertise below. Air Pollution Control;	Area of Expertise
(ii)	Facilitation of meeting;	a) Air Pollution Control;b) Ecology and Biodiversity;
		c) Facilitation of meeting; d) Geology and Soil;
(iii)	Noise and Vibration;	 e) Ground water and Hydrology; f) Land use; g) Legal Analysis; h) Meteorology, Modeling for Air Quality; i) Modeling for Water Quality;
(iv) (v) (vi)	Risk Assessment and Hazard Management; Water Pollution Control; Waste Management;	j) Noise and Vibration; k) Risk Assessment and Hazard Management; l) Socio-Economy; m) Water Pollution Control; n) Waste Management; and o) Others

If you have an experience of 'Team Leading', please select the most recent cases up to 3 and describe here the sammarized information of each case:

Duration	Summary of the case
1 month	Social survey and socio-economy for Denko EIA project
2months	7 ocean fiberglass tank production for EMP project
2 months	Shine Shine noodle production for EMP porject

Further explanation on your expertise (optional	al)

TRANSITIONAL CONSULTANT REGISTRATION FORM 22-MAR-2016

SECTION B: ACADEMIC QUALIFICATIONS

Description of subject areas studied	Environmental and Chemical Engineering							
Title of degree / certificate*	Bachelor of Engineer (Chemical)							
Institution	Thanlyin Technological University							
Course title	Chemical Engineering (Environmental)							
Full or part time	Full-time							
Year	2018							
Year Started	2012							

*Please ensure copies of certificates or any proof of the academic qualification are enclosed. If those supporting evidence is written in other than Myanmar or English language, those shall be provisionally translated into Myanmar or English language.

TRANSITIONAL CONSULTANT REGISTRATION FORM 22-MAR-2016

SECTION C: WORKING EXPERIENCE

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization / client
1year	IRAD Innovation and Technical service	Project Engineer	Analysis, sampling, site survey and reporting EMP, EIA	Phyo Phyo chephyophyosan1996@gmail.com
6 months	PEB Steel	HSE supervisor	Occupational safety and health, Environmental	Aye Naing ayenaing75@gmail.com

SECTION D: DECLARATION

I hereby apply for registration and agree to observe and abide by the Code of Conduct specified in the final part of this form. I certify that the statements contained in this form and the supporting evidence are correct to the best of my knowledge and belief.

Signature :	Date :
Lat	20.01.2021

CODE OF CONDUCT

All Registered Consultants are obliged to improve the standing of the environmental impact assessment profession by rigorously observing the following Codes of Conduct. Failure to conform may result in suspension or deregistration. All registrants shall:

To act professionally, accurately and in an unbiased manner,

Strive to increase the competence and prestige of the environmental impact assessment profession;

Assist those under my supervision (if relevant) in developing their management, professional and environmental impact assessment skills;

Not to represent conflicting or competing interests and to disclose to any client or employer any relationship that may influence my judgment;

Not to accept any inducement, commission, gift or any other benefit from any interested party or knowingly allow colleagues to do so;

Not to intentionally communicate false or misleading information that may compromise the integrity of any EIA / IEE study; and

Not to act in a manner detrimental to the reputation of any of the stakeholders including the Ministry and the client.

	FOR OFFICE USE ONLY
Date received:	Attachment: ☐ Copy of ID card or Passport ☐ Professional Resume
Recorded by:	☐ Copies of certificate / any proof for academic qualification (written in or translated into Myanmar or English language)
Additional comments, notes or recommendation	ons (attached if necessary):

ပညာရေးဝန်ကြီးဌာန Ministry of Education



နည်းပညာတက္ကသိုလ် (သန်လျင်) Technological University (Thanlyin)

အင်ဂျင်နီယာဘွဲ့ Bachelor of Engineering

နည်းပညာတတ္တသိုလ် (သန်လျင်) မှ အောင်မြင်ခဲ့သော
ဦး ကျော် ၁၃ ကျိုင် ၏ သား/အခီး မောင် ၇ မြတ် ဘုန်း ကျိုင် တား
အင် ရင်နီယာဘွဲ့ () ကို
အပ်နှင်းချီးမြှင့်လိုက်သည်။ November 2018
Upon successful completion of the studies at
Technological University (Thanlyin)
The degree of Bachelor of Engineering ()
is awarded to
Mg Ye Myat Phone Hlaing son/daughter of U Kyaw Thu Hlaing
နိုင်ငံသားစိစစ်ရေးတစ်ပြားအမှတ် (Citizenship Scrutiny Card No.) 12 (ဂြာဝ Ka ပြ (ပေလုံး၁၅) 1801 (မ
ဘွဲ့ ရမှတ်ပုံတင်အမှတ် (Graduate Registration Card No.)

မော်ကွန်းထိန်း Registrar

ပါမောက္ခချုပ် Rector

Date 5.2.2619 5 February 2019

ပညာရေးဝန်ကြီးဌာန Ministry of Education



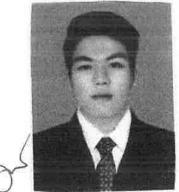
နည်းပညာတက္ကသိုလ် (သန်လျင်) Technological University (Thanlyin)

အင်ဂျင်နီယာနည်းပညာဘွဲ့ Bachelor of Technology

နည်းပညာတက္ကသိုလ် (သန်လျင်) မှ အောင်မြင်ခဲ့သော
ညီ ကျော်သူ ကိုင် ၏ သား/ သမီး မောင် ဂို မြတ်ဘည <i>်း</i> ကိုင် အား
အင်ဂျင်နီယာနည်းပညာဘွဲ့ (<u>က က က က ကင်ကျင်နီပဘ</u>
. စာပ်နှင်းချီးမြှင့်လိုက်သည်။ November 2016
Upon successful completion of the studies at
Technological University (Thanlyin)
The degree of Bachelor of Technology (Chemical Engineering)
is awarded to
Mg Ye Myat Phone Hlaingson/daughter of U Kyaw Thu Hlaing
နိုင်ငံသားစိစစ်ရေးကဒ်ပြားအမှတ် (Citizenship Scrutiny Card No.) 12 Tha ka To. (No.ing.) 186 166 ဘွဲ့ ရမှတ်ပုံတင်အမှတ် (Graduate Registration Card No.) 012972
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6

မော်ကွန်းထိန်း ှင့်Registranွ



ပါမောက္ခချုပ် Rector

Date 29.1.2017

29 January 2017



AF 6 4 \$ 2.3 4

ထရာဝိတက်ပြီး (C. 0210, C. 2020)

ဆေးပြီးမြောက် (C. 0210, C. 2020)

ဆေးပြောက် (C.

TRANSITIONAL CONSULTANT REGISTRATION FORM FOR PERSON

This form was set out by ECD-MOECAF in accordance with Article 17 (a) of EIA Procedure No. 616/2015, i.e. smooth application and registration for person who wishes to undertake an IEE / EIA study during the transitional period — until coming into force of "Consultant Registration Scheme".

SECTION A - PERSONAL INFORMAT	TION		
Full Name (Sur name, Given name)	U Aung Khaing San		
Courtesy Title (Prof, Dr, Mr., Mrs., Ms)	Mr.		
Date of birth	24.01.1999		
Identity card number (Citizen in Myanmar)*	5/WALANA(N)184138		
Passport number (Foreigners only)*			
Organization	Environment Service Collection Compa	ny Limited	
Job Title	Consultant		
* A copy of ID card or Passport must be attace HOME Address:	hed to this form.		
No.140,Pyin Nyar Yay Mue Street,Hlaing Th	naryar Township, Yangon, Myanmar		
Postcode:	Country: Myanmar		31
WORK/ OFFICE Address:			
No.(7/A), 7 Floor, 95 Residence, Block 95(K	(ha)< Kyaik Waing Pagoda Road, Mayar	igone Twon	ship
Postcode:	Country: Myanmar		
Preferred address: All future correspondence will be sent to t	he address indicated.	Home	Work
Contact Information:	- " III - 1000 C		
Telephone:09-969888797	E mail: khingsan1999@gma	II.com	

Mobile phone: 09-695520800

Fax: -

	(4) areas (at least one (1) area shall be selected) from			
the list of areas of expertise below. (i) Geology and Soil	Area of Expertise a) Air Pollution Control; b) Ecology and Biodiversity; c) Facilitation of meeting; d) Geology and Soil;			
(ii) Land use	 e) Ground water and Hydrology; f) Land use; g) Legal Analysis; h) Meteorology, Modeling for Air Quality; i) Modeling for Water Quality; 			
(iii) Modeling for Water Quality	 j) Noise and Vibration; k) Risk Assessment and Hazard Management; l) Socio-Economy; m) Water Pollution Control; n) Waste Management; and 			
(iv) Water Pollution Control	o) Others			
Team Leading If you have an experience of 'Team Leading', please select the most recent cases up to 3 and describe here the sammarized information of each case:				
Duration	Summary of the case			

TRANSITIONAL CONSULTANT REGISTRATION FORM 22-MAR-2016

Further explanation on your expertise (optional)	
(

SECTION C: WORKING EXPERIENCE

Period	Organization or client	Position	Responsibilities	Verification Source – contact details of the organization / client
1year	Ally For Sustainable League	Office Staff	Site surveying for data analyzing	Asloperation1@gamil.com

TRANSITIONAL CONSULTANT REGISTRATION FORM 22-MAR-2016

SECTION B: ACADEMIC QUALIFICATIONS

Year Started	Year completed	Full or part time	Course title	Institution	Title of degree / certificate*	Description of subject areas studied
	2019	Full time	Geology	Shwebo University	B.Sc (Geology)	Geology, English
Carro	popios of son	ing to octobility	#Discont comments of actification or any served of the acceleration and accelerate any description in other than Missesson	tronging coopy to boogle	action of opposite and	in other than Manager

*Please ensure copies of certificates or any proof of the academic qualification are enclosed. If those supporting evidence is written in other than Myanmar or English language. those shall be provisionally translated into Myanmar or English language.

SECTION D: DECLARATION

I hereby apply for registration and agree to observe and abide by the Code of Conduct specified in the final part of this form. I certify that the statements contained in this form and the supporting evidence are correct to the best of my knowledge and belief.

Signature :	Date :
	200000000000000000000000000000000000000

CODE OF CONDUCT

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Not to intentionally communicate false or misleading information that may compromise the integrity of any EIA / IEE study; and

Not to act in a manner detrimental to the reputation of any of the stakeholders including the Ministry and the client.

	FOR OFFICE USE ONLY
Date received:	Attachment: ☐ Copy of ID card or Passport ☐ Professional Resume
Recorded by:	□ Copies of certificate / any proof for academic qualification (written in or translated into Myanmar or English language)
Additional comments, notes or recommend	dations (attached if necessary):







SHWEBO UNIVERSITY



వకిల్టీప్దా.

BACHELOR OF SCIENCE

ဦးသန်းအောင် မောင်အောင်ခို 	င်စံ အား
သိပ္မံဘွဲ့ ကို အပ်နှင်း ရီးမြှင့်လိုက် သည်။ ၂ဝ၁၈ – ၂ဝ၁၉ ပညာသင်နှစ် ————————————————————————————————————	
This is to certify that U THAN AUNG son / daughter of ———————————————————————————————————	as been admitted Geology
ပါမောင် ရွှေဘိုတ Red	က္ခ <mark>ုပ်</mark> က္ဆသိုလ် င်းor
Shwebo dated the — 14 FFR 2000	Iniversity

TRANSITIONAL CONSULTANT REGISTRATION FORM FOR PERSON

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SECTION A -	- PERSONAL	INFORMATION
-------------	------------	-------------

Full Name (Sur name, Given name)	U Kyaw Swar Linn		
Courtesy Title (Prof, Dr, Mr., Mrs., Ms)	Mr.		
Date of birth	24.04.1993		
Identity card number (Citizen in Myanmar)*	1/BAMANA(N)091057		
Passport number (Foreigners only)*			
Organization	Environment Service Collection Compa	iny Limited	
Job Title	Consultant		
* A copy of ID card or Passport must be attace HOME Address:	ched to this form.		
Postcode:	Country: Myanmar		
WORK/ OFFICE Address:			
No.140,Pyin Nyar Yay Mue Street,Hlaing To	ownship, Yangon, Myanmar		
Postcode:	Country: Myanmar		
Preferred address: All future correspondence will be sent to the	he address indicated.	Home	Work
<u>Contact Information :</u> Telephone:	E mail: arrshwe332@gmail.c	om	
Fax: -	Mobile phone: 09-950714378	3	

(i) Legal Analysis	Area of Expertise a) Air Pollution Control; b) Ecology and Biodiversity; c) Facilitation of meeting; d) Geology and Soil;
(iii) (iii)	e) Ground water and Hydrology; f) Land use; g) Legal Analysis; h) Meteorology, Modeling for Air Quality; i) Modeling for Water Quality; j) Noise and Vibration; k) Risk Assessment and Hazard Management; l) Socio-Economy; m) Water Pollution Control; n) Waste Management; and o) Others
Team Leading If you have an experience of 'Team Leading describe here the sammarized information of Duration	ng', please select the most recent cases up to 3 and f each case: Summary of the case
	-

TRANSITIONAL CONSULTANT REGISTRATION FORM 22-MAR-2016

Further explanation on your expertise (optional)	
	i
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TRANSITIONAL CONSULTANT REGISTRATION FORM 22-MAR-2016

SECTION B: ACADEMIC QUALIFICATIONS

Description of subject areas studied	Myanmar English Law	
Title of degree / certificate*	L'L'B	
Institution	Yadanabon University	
Course title	Bachelor of Law	
Full or part time	Full time	
Year	2011	
Year Started	5006	ā

or English language, those shall be provisionally translated into Myanmar or English language.

SECTION C: WORKING EXPERIENCE

r		1	 T	_
Verification Source – contact details of the organization / client	Kantawmingalar garden, Dagon Township			
Responsibilities	Photoshop , Design, Photographer			
Position	Adviser			
Organization or client	Ray Photo Studio			
Period	2015-2017	.TI		

>

SECTION D: DECLARATION

I hereby apply for registration and agree to observe and abide by the Code of Conduct specified in the final part of this form. I certify that the statements contained in this form and the supporting evidence are correct to the best of my knowledge and belief.

Signature :		Date:
	War.	01.702
		0000

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	FOR OFFICE USE ONLY
Date received:	Attachment: Copy of ID card or Passport Professional Resume
Recorded by:	☐ Copies of certificate / any proof for academic qualification (written in or translated into Myanmar or English language)
Additional comments, notes or recommenda	ations (attached if necessary):



क क इंग्लिंग सम्बद्ध



UNIVERSITY YADANABON



BACHELOR OF LAWS

ျာမေသျှဲ့ ကို <mark>အပ်နင်းချီးမြှင့်</mark>လိုတ်သည်။

ပညာသင်နှစ် **၂၀၁၀ - ၂၀၁၁** ကဏးပြာဘာသာ **ဥပဒေပဥဘ**

This is to certify that son / daughter of has been admitted to the Degree of Bachelor of Laws in this University.



ပါမောက္ခချုပ် ရတနာပုံတက္ကသိုင

Rector

10 9 consul consumerant state. Or process 610. Amarapura, dated the 1. FEB 2012.

Yadanabon University

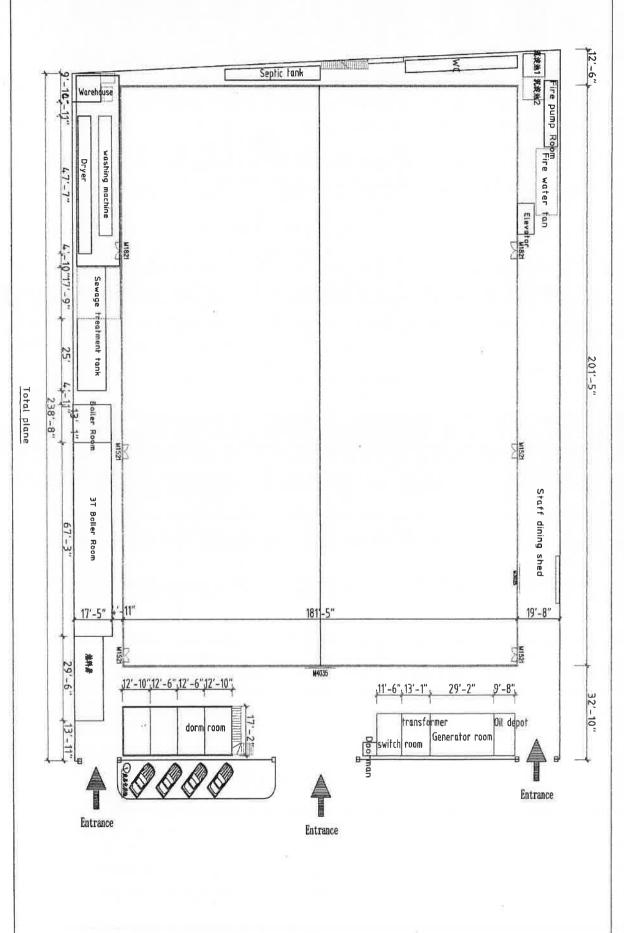


APPENDIX 3

Layout plan

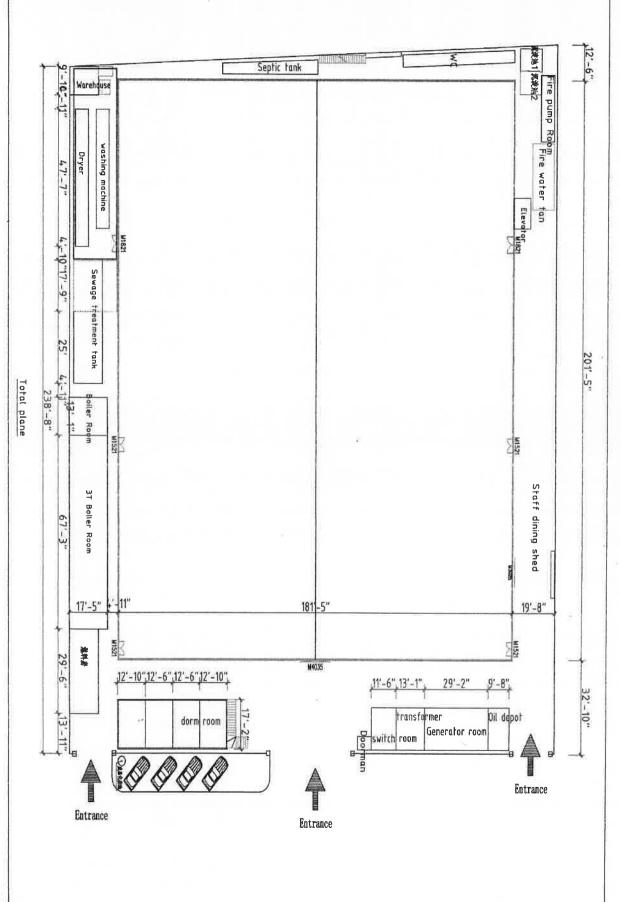
JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED

(Building Drawing)



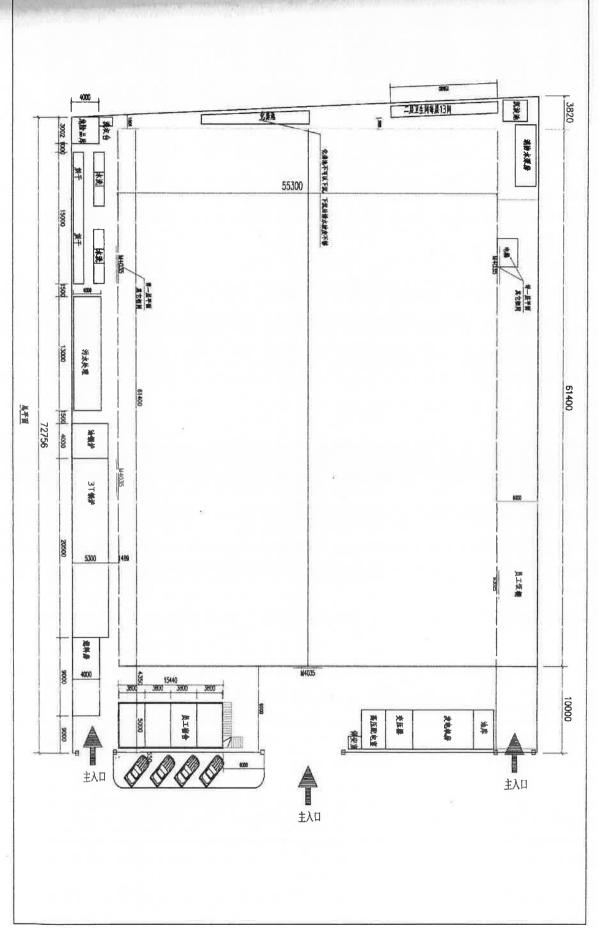
JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED

(Building Drawing)



JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED





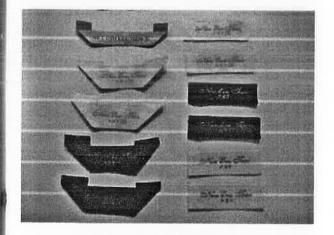
APPENDIX 4 Raw Material Requirement

လုပ်ငန်းတွင် အသုံးပြုမည့် ကုန်ကြမ်းပစ္စည်းအမျိုးအစားများ

1. Pannal @ Cut Pieces



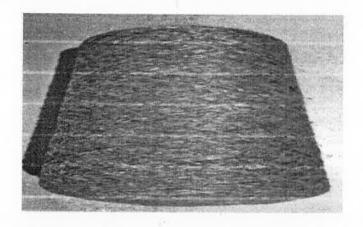
3. Main Label



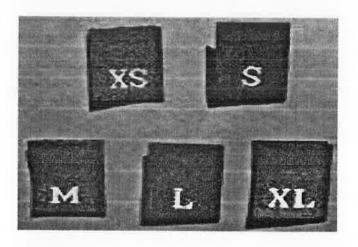
5. Price Ticket



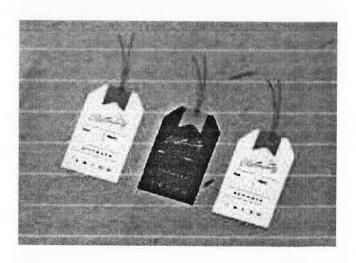
2. Yarn



4. Size Label

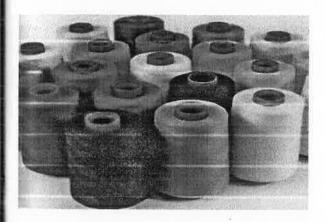


6. Hang Tag



လုပ်ငန်းတွင် အသုံးပြုမည့် ကုန်ကြမ်းပစ္စည်းအမျိုးအစားများ

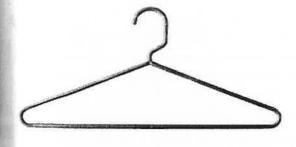
7. Sewing Thread



9. Detergent



11. Hanger



8. Softerner

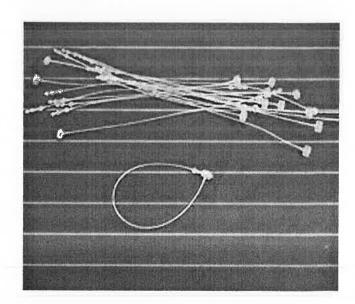
Hosiery Knitted Fabric Softener



10. Wash Agent

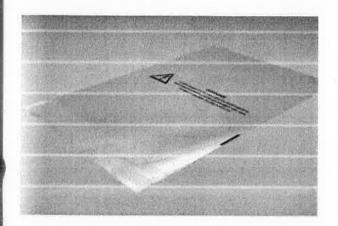


12. Tag Pin



လုပ်ငန်းတွင် အသုံးပြုမည့် ကုန်ကြမ်းပစ္စည်းအမျိုးအစားများ

13. Polybag



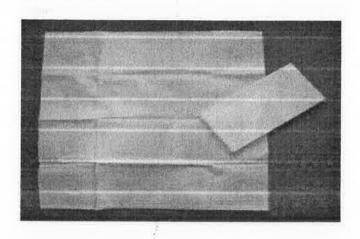
15. Button



17. Binding Strap



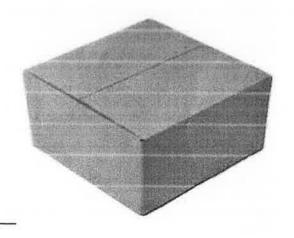
14. Tissue Paper



16. Zipper



18. Carton



APPENDIX 5 Production Rate (annually)

Annual Production & Income Statement

Sr. No.	Particular	A/U	Year - 1	Year - 2	Year - 3
ı	TOTAL PRODUCTION		326,000	342,500	360,000
	Knitted T - Shirt (Men)	Doz	8,000	8,500	8,925.00
	Knitted T - Shirt (Ladies)	Doz	8,000	8,500	8,925.00
	Knitted Sweater (Men)	Doz	50,000	52,500	55,125.00
	Knitted Sweater (Ladies)	Doz	50,000	52,500	55,125.00
	Knitted Sweater (Kids)	Doz	50,000	52,500	55,125.00
	Knitted Scarf	Doz	45,000	47,250	50,000.00
	Knitted Hat & Glove	Doz	35,000	36,750	38,580.0
	Knitted Poncho	Doz	10,000	10,500	11,000.00
	Mock Layer (Men /Ladies)	Doz	40,000	42,000	44,100.00
	Knitted Skirt	Doz	10,000	10,500	11,045.0
	Knitted Woven Combined Dress	Doz	20,000	21,000	22,050.0
II	Price (For C.M.P)				
	Knitted T - Shirt (Men)	US\$ / Doz.	14.00	14.00	14.00
-	Knitted 1 - Shirt (Ladies)	U\$\$ / Doz.	15.00	15.00	15.00
	Knitted Sweater (Men)	US\$ / Doz.	20.00	20.00	20.0
	Knitted Sweater (Ladies)	US\$ / Doz.	18.00	18.00	18.0
	Knitted Sweater (Kids)	US\$ / Doz.	16.80	16.80	16.80
	Knitted Scarf	US\$ / Doz.	6.00	6.00	6.0
	Knitted Hat & Glove	US\$ / Doz.	5.50	5.50	5.5
	Knitted Poncho	US\$ / Doz.	18.00	18.00	18.0
	Mock Layer (Men /Ladies)	US\$ / Doz.	36.00	36.00	36.0
	Knitted Skirt	US\$ / Doz.	15.60	15.60	15.6
		US\$ / Doz.	21.60	21.60	21.6
III	Knitted Woven Combined Dress CMP INCOME				
-		US\$ 000	112	119	12
	Knitted T - Shirt (Men) Knitted T - Shirt (Ladies)	US\$ 000	120	128	13
	Knitted 1 - Shirt (Ladies)	US\$ 000	1,000	1,050	1,10
		US\$ 000	900	945	99
	Knitted Sweater (Ladies)	US\$ 000	840	882	92
_	Knitted Sweater (Kids)	US\$ 000	270	284	30
	Knitted Scarf	US\$ 000	193	202	21
	7 Knitted Hat & Glove	US\$ 000	180	100	19
	Rnitted Poncho	US\$ 000	1,440	189 1,512	Voj. 1,58
	Mock Layer (Men /Ladies)	ÚS\$ 000	156	11 -2 /	1 - 1
	Knitted Skirt	US\$ 000	432	No. 164 Date 454	17 E 47
11	1 Knitted Woven Combined Dress TOTAL	US\$ 000	5,643	Date 454	6,220

∎ ထွက်ရှိသည့် ကုန်ချောပစ္စည်းများကို USA ,UK EUROPE in နိုင်ငံများသို့ တင်ပို့မည်ဖြစ်ပြစ်သို့ Mes lan Dan

Jessie Myanmar Apparel Manufacturing Co.,Ltd Managing Director

Jessie Myanmar Apparel Manufacturing Co. Ltd မှတ်ချက် ။

Annual Production & Income Statement

. No.	Particular	A/U	Year - 4	Year - 5	Year - 6
I	TOTAL PRODUCTION		377,955	396,873	533,630
1	Knitted T - Shirt (Men)	Doz	9,400	9,870	10,365
	Knitted T - Shirt (Ladies)	Doz	9,400	9,870	10,365
	Knitted Sweater (Men)	Doz	57,850	60,750	63,800
	Knitted Sweater (Ladies)	Doz	57,850	60,750	63,800
	Knitted Sweater (Kids)	Doz	57,850	60,750	63,800
- 1	Knitted Scarf	Doz	52,500	55,125	58,000
	Knitted Hat & Glove	Doz	40,500	42,525	45,000
	Knitted Poncho	Doz	11,550	12,128	128,000
	Mock Layer (Men /Ladies)	' Doz	46,305	48,620	52,000
	Knitted Skirt	Doz	11,597	12,175	13,000
	Knitted Woven Combined Dress	Doz	23,153	24,310	25,500
II	Price (For C.M.P)				
1	Knitted T - Shirt (Men)	US\$ / Doz.	14.00	14.00	14.00
	Knitted I - Shirt (Ladies)	US\$ / Doz.	15.00	15.00	15,00
	Knitted Sweater (Men)	US\$ / Doz.	20.00	20.00	20.00
	Knitted Sweater (Ladies)	US\$ / Doz.	18.00	18.00	18.00
	Knitted Sweater (Kids)	US\$ / Doz.	16.80	16.80	16.80
	Knitted Scarf	US\$ / Doz.	6.00	6.00	6.00
	Knitted Hat & Glove	US\$ / Doz.	5.50	5.50	5.50
	Knitted Poncho	US\$ / Doz.	18.00	18.00	18.00
	Mock Layer (Men /Ladies)	US\$ / Doz.	36.00	36.00	36.00
	Knitted Skirt	US\$ / Doz.	15.60	15.60	15.60
	Knitted Woven Combined Dress	US\$ / Doz.	21.60	21.60	21.60
III	CMP INCOME				
	Knitted T - Shirt (Men)	US\$ 000	132	138	145
	Knitted T - Shirt (Ladies)	US\$ 000	141	148	155
	Knitted Sweater (Men)	US\$ 000	1,157	1,215	1,276
		US\$ 000	1,041	1,094	1,148
	Knitted Sweater (Ladies)	US\$ 000	972	1,021	1,072
	Knitted Sweater (Kids)	US\$ 000	315	331	348
	Knitted Scarf	US\$ 000	223		
	Knitted Hat & Glove	US\$ 000	208	234	248
	Knitted Poncho	US\$ 000		SYARES AGO	2,304
	Mock Layer (Men /Ladies)		1,667	1,750	1,872
	Knitted Skirt	US\$ 000	181	5 Date 525	203
11	Knitted Woven Combined Dress		500	11 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	111
	TOTAL	US\$ 000	6,536	6,864	9,322

Sr. No.	Particular	A/U	Year 7 ~ 10	Year 11 ~ 30	
1	TOTAL PRODUCTION	18.0%	563,435	595,850	<i>-</i>
	Knitted T - Shirt (Men)	Doz	10,880	11,425.00	
	Knitted T - Shirt (Ladies)	Doz	10,880	11,425.00	
	Knitted Sweater (Men)	Doz	68,000	72,000.00	
	Knitted Sweater (Ladies)	Doz	68,000	72,000.00	
	Knitted Sweater (Kids)	Doz	68,000	72,000.00	
	Knitted Scarf	Doz	61,000	65,000.00	
	Knitted Hat & Glove	Doz	47,250	50,000.00	
	Knitted Poncho	Doz	134,400	142,000.00	
	Mock Layer (Men /Ladies)	Doz	54,600	57,500.00	
	Knitted Skirt	Doz	13,650	14,500.00	
	Knitted Woven Combined Dress	Doz	26,775	28,000.00	
II	Price (For C.M.P)				
	Knitted T - Shirt (Men)	US\$ / Doz.	14.00	14.00	
	Knitted T - Shirt (Ladies)	US\$ / Doz.	15.00	15.00	
	Knitted Sweater (Men)	US\$ / Doz.	20.00	20.00	
	Knitted Sweater (Ladies)	US\$ / Doz.	18.00	18.00	
	Knitted Sweater (Kids)	US\$ / Doz.	16.80	16.80	
	6 Knitted Scarf	US\$ / Doz.	6.00	6.00	
	7 Knitted Hat & Glove	US\$ / Doz.	5.50	5.50	
	8 Knitted Poncho	US\$ / Doz.	18.00	18.00	
		US\$ / Doz.	36.00	36.00	
	9 Mock Layer (Men /Ladies) 0 Knitted Skirt	US\$ / Doz.	15.60	15.60	
	1 Knitted Woven Combined Dress	US\$ / Doz.	21.60	21.60	
III	CMP INCOME				
		US\$ 000	152	160	
	1 Knitted T - Shirt (Men)	US\$ 000	163	171	Me Ton Dan
	2 Knitted T - Shirt (Ladies)	US\$ 000	1,360	1,440	intilor
	3 Knitted Sweater (Men)	US\$ 000	1,224	Jessie My 296 ª	
	4 Knitted Sweater (Ladies)	US\$ 000	1,142	1,210	er = ####155
	5 Knitted Sweater (Kids)	US\$ 000	366		
	6 Knitted Scarf	US\$ 000	260		~
	7 Knitted Hat & Glove	ÜS\$ 000	2,419	2,556	100
	8 Knitted Poncho	US\$ 000	1,966		1
	9 Mock Layer (Men /Ladies)	US\$ 000	213	226	SEL MAN
	LO Knitted Skirt	US\$ 000	578		No. WANDER OF THE PROPERTY OF
1	11 Knitted Woven Combined Dress	US\$ 000	9,844		- () () () () () () () () () (
	TOTAL ၊ ထွက်ရှိသည့် ကုန်ချောပစွည်းမျာ				

Annual Production & Income Statement

595,850	563,435	533,630	396,873	377,955	360,000	342,500	326,000		TOTAL
28,000	26,775	25,500	24,310	23,153	22,050	21,000	20,000	Doz	11 Knitted Woven Combined D
14,500	13,650	13,000	12,175	11,597	1,045	10,500	10,000	Doz	10 Knitted Skirt
57,500	54,600	52,000	48,620	46,305	44,100	42,000	40,000	Doz	9 Mock Layer (Men /Ladies)
142,000	134,400	128,000	12,128	11,550	: 1,000	10,500	10,000	Doz	8 Knitted Poncho
50,000	47,250	45,000	42,525	40,500	38,580	36,750	35,000	Doz	Knitted Hat & Glove
65,000	61,000	58,000	55,125	52,500	50,000	47,250	45,000	Doz	6 Knitted Scarf
72,000	68,000	63,800	60,750	57,850	55,125	52,500	50,000	Doz	5 Knitted Sweater (Kids)
72,000	68,000	63,800	60,750	57,850	55,125	52,500	50,000	Doz	4 Knitted Sweater (Ladies)
72,000	000,89	63,800	60,750	57,850	≤5,125	52,500	50,000	Doz	3 Knitted Sweater (Men)
11,425	10,880	10,365	9,870	9,400	8,925	8,500	8,000	Doz	2 Knitted T - Shirt (Ladies)
11,425	10,880	10,365	9,870	9,400	8,925	8,500	8,000	Doz	1 Knitted T - Shirt (Men)
Year 7 ~ 10 Year 11 ~ 30	Year 7 ~ 10	Year - 6	Year - 5	Year - 4	Year - 3	Year - 2	Year - 1	A/U	Sr. Particular

မှတ်ချက် ။ ။ ထွက်ရှိသည့် ကုန်ချောပစ္စည်းများကို USA ,UK , EUROPE နိုင်ငံများသို့ တင်ပို့မည်ဖြစ်ပါသည်။ Ms. Tan Dan Ms. Tan Dan Ms. Tan Dan Ms. Tan Dan Jessiv Myanmar Apparol Manufacturing **Co.,Ltd**

Managing Director

Tessie Myanmar Apparel Manufacturing Co.,Ltd



ထုတ်လုပ်မည့် ကုန်ချောပစ္စည်းအမျိုးအစားများ

1. Knitted T-Shirt (Men)



2. Knitted T-Shirt (Ladies)



3. Knitted Sweater (Men)



4. Knitted Sweater (Ladies)

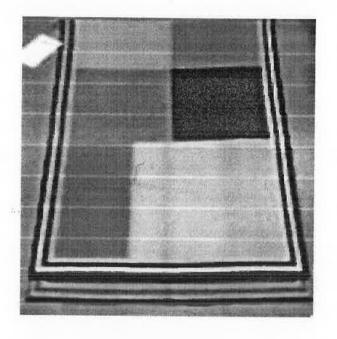


ထုတ်လုပ်မည့် ကုန်ချောပစ္စည်းအမျိုးအစားများ

4. Knitted Sweater (Kids)



veater (Kids) 6. Knitted Scarf



7. Knitted Hat & Glove





8. Knitted Poncho



ထုတ်လုပ်မည့် ကုန်ချောပစ္စည်းအမျိုးအစားများ

9. Mock Layer (Men/Ladies)



10. Knitted Skirt



11. Knitted Woven Combined Dress



APPENDIX 6 Factory Accessories/Operating Machinery

JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED LIST OF MACHINERIES (BRAND NEW) - TO BE IMPORTED

SR. No.	Particular	HS CODE	A/U	QTY	Price in	Value in
1	Linking Machine (3 G - 10 G)	8447203000	UNIT	250	235	58,750
2	Linking Machine (12 G - 16 G)	8447203000	UNIT	600	250	150,000
3	Linking Machine (18 G)	8447203000	UNIT	400	275	110,000
4	Linking Machine (20 G)	8447203000	UNIT	50	300	15,000
5	Linking Motor 180W	8501320000	UNIT	600	29	17,400
6	CUP SEAMING MACHINE (SL 9000)	8452212000	UNIT	20	820	16,400
7	Sewing Machine (GC 6880 - MD4)	84522900	UNIT	50	360	18,000
8	LOCK STITCH MACHINE (GT 6438 D)	84522900	UNIT	20	1,700	34,000
9	BUTTON MACHINE (LK 1903 B)	84522900	UNIT	15	3,520	52,800
10	BUTTON MACHINE (GD 6438 D)	84522900	UNIT	8	1,800	14,400
11	BUTTON HOLE MACHINE (LBH1790S)	84522900	UNIT	10	4,200	42,000
12	Needle Detector (DH 650 C)	8543709100	UNIT	2	2,800	5,600
13	Ironing Table FJT 1800	94032090	UNIT	96	330	31,680
14	Iron	94032090	UNIT	96	35	3,360
15	Washing Machine SX 1000Z	8451400000	UNIT	6	4,900	29,400
16	Dehydrator Tl 1200B	8421129000	UNIT	3	4,900	14,700
17	Dying Machine TJHG 100	8451290000	UNIT	10	5,600	56,000
18	Light Checking Box 001	8512201000	UNIT	20	125	2,500
19	OVERLOCK SEWING MACHINE 747K - 514M2 - 24	8452290000	UNIT	5	630	3,150
20	RE - WINDING MACHINE SK - 06	8445401000	TINU	3	1,200	3,600
21	AIR SPLICER ON RE-WINDING MACHING PLS - 1977	8445401000	UNIT	3	220	660
22	BOILER WITH ACCESSORIES DZL 3.0 - 1.25 (ELECTRIC)	8402900000	UNIT	1	78,000	78,000
23	BOILER WITH ACCESSORIES LSS 1.5 - 1.0 / 1500 KG (ELECTRIC	8402900000	UNIT	1	28,000	28,000
24	PACKING LOOPER	8422303090	UNIT	2	20,000	40,000
25	DE-HUMIDIFIER CF 12 KT	8427900000	UNIT	6	6,666.67	40,000
26	AUTO KNITTING MACHINE	8447202000	UNIT	120	10,000	1,200,000
	TOTAL					2,065,400

မှတ်ချက်။ ။ အထက်ဖော်ပြပါစက်ပစ္စည်းများသည် People's Republic Of China မှ Brand New စက်ပစ္စည်းများအဖြစ်တင်သွင်းမည်ဖြစ်ပါသည်။

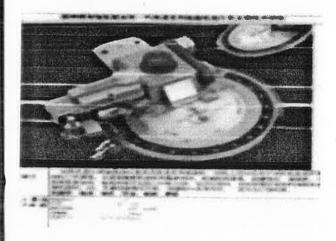
Ms.Tan Dan
Managing Director
Jessie Myanmar Apparel Manufacturing Co.,Ltd

Ms. Tan Dan

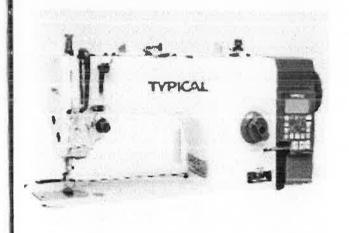
Managing Director
Jessie Myanmar Apparel Manufacturing Co., Ltd

လုပ်ငန်းတွင် အသုံးပြုမည့် စက်ပစ္စည်းအမျိုးအစားများ

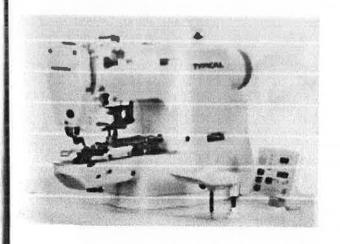
1. Linking Machine



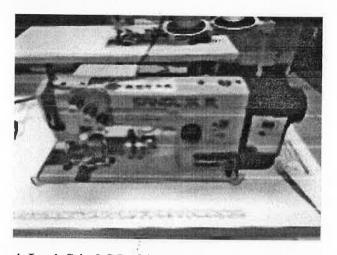
3. Sewing Machine



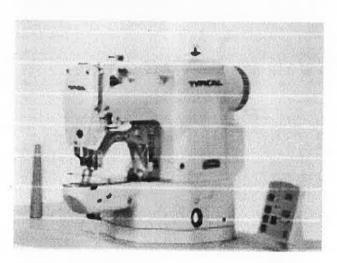
5. Button Machine



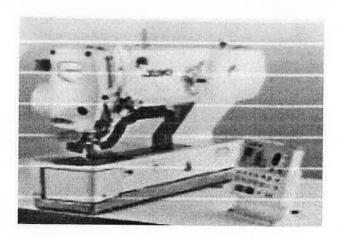
2. Cup Seaming Machine



4. Lock Stitch Machine

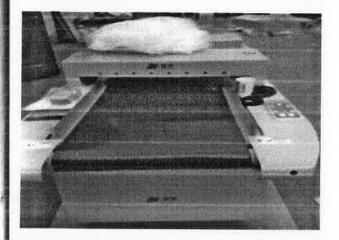


6. Button Hole Machine

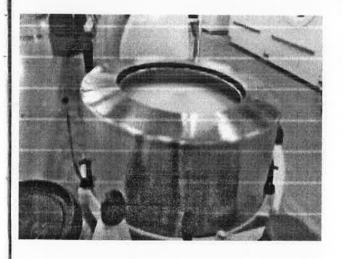


လုပ်ငန်းတွင် အသုံးပြုမည့် စက်ပစ္စည်းအမျိုးအစားများ

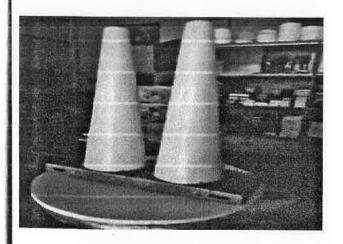
7. Needle Detector



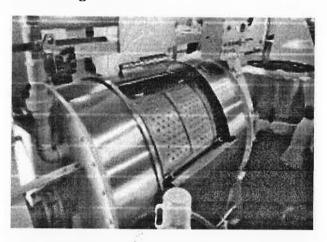
9. Dehydrator



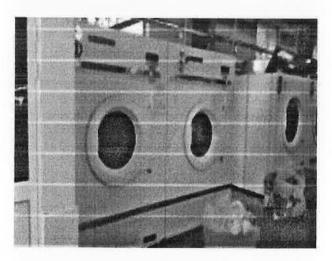
11. Light Checking Box



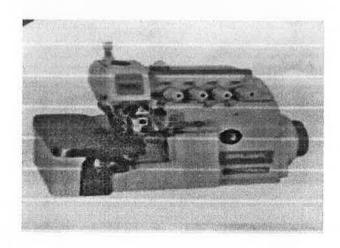
8. Washing Machine



10. Drying Machine

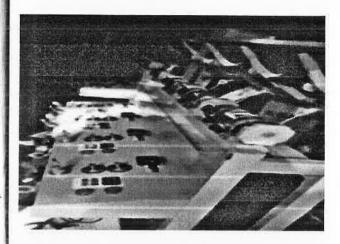


12. Overlock Sewing Machine

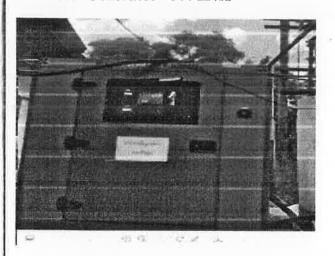


လုပ်ငန်းတွင် အသုံးပြုမည့် စက်ပစ္စည်းအမျိုးအစားများ

13. Re-Winding Machine



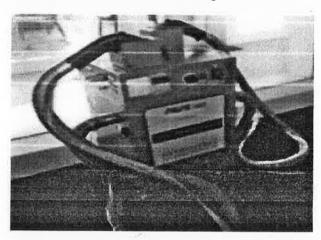
15. Diesel Generator - 500 KVA



17. Packing Looper



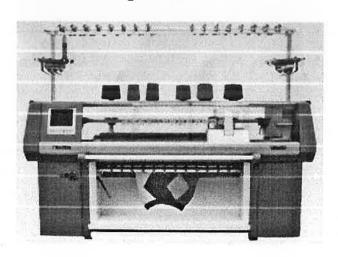
14. Air Splicer On Re-Winding Machine



16. Forklift



18. Auto Knitting Machine



APPENDIX 7 Boiler Certificate



ဘွိုင်လာယာယီအသုံးပြုခွင့်လက်မှတ် { လုပ်ထုံးလုပ်နည်း အပိုဒ် ၆ အပိုဒ်ခွဲ (ဆ) }

Mr, Jon Don & Jessie M	yanem. Apporel movaj	ງເນີ້
t. 8 ve () t. 6 7	W. c1.5	
… ૧૫ હ્ય વે અફ : જ અભુ ા		
		နိုင်ငံမှ
ထုတ်လုပ်သည့်ဘွိုင်လာအမှတ်		ပါသော
သို့မဟုတ်ဘွိုင်လာမှတ်ပုံတင်အမှင	က် မ.စ၆၅.ေနဖြစ်ငေ	သာ%က်.ဂု:ဒဲကျွဲက်ဘွိုင်လာကို
ခွင့်ပြုဖိအား!M.P.a	.ဖြင့်လက်မှတ်ထုတ်ပေးသည့်	နေ့မှ (၆)လ အသုံးပြုခွင့်ရှိသည်။
ယင်းကာလအပိုင်းအခြားကျော်လွန်	သည့်အခါ ထုတ်ပေးထားသည့်	ဤယာယီအသုံးပြုခွင့်လက်မှတ်
ပျက်ပြယ်စေရမည်။		

ဒုတိယည္တန်ကြားရေးမှူး (ဘွိုင်လာစစ်ဆေးရေး) ရန်တုန်တိုင်းဒေသကြီး ကျင်လာစစ်ဆေးရေးမှူး ဌာနခွဲမှူး (ဘွိုင်လာစစ်ဆေးရေး) န်ကုန်တိုင်းဒေသကြီး

ရက်စွဲ။ ၁၉, ၅ . ၂၀၂၂

မှတ်ချက်။ ။ ဘွိုင်လာဥပဒေပုဒ်မ ၁၅ပါ ပြဋ္ဌာန်းထားသည့် သက်ဆိုင်ရာအစိုးရဋ္ဌာနအဖွဲ့အစည်းက လိုအပ်၍ တောင်းဆိုသည့်အခါ ဤလက်မှတ်ကို တင်ပြရမည်။



ဘွိုင်လာယာယီအသုံးပြုခွင့်လက်မှတ်

{ လုပ်ထုံးလုပ်နည်း အပိုဒ် ၆ အပိုဒ်ခွဲ (ဆ) }

စာအမှတ်... ၂၈၂၂-၂၃

Mrs. Tan Dan, Jessie Myannood Apparel Miffy Co., Itd.
ತಾರ್ಯಾನಿಕ್ಟಿಟ್ ತ್ರಾಕ್ಕರ್ ಒಂಗಲ್ಲ ಬಟ್ಟು ಕ್ಲಿಕ್ ೧೯೯೭
मुह्नाव १०० वित्र मार्जित वित्र के वित्र के वित्र व
ကုမ္ပဏီ၊ ဇိုင်ငံမှ
ထုတ်လုပ်သည့်ဘွိုင်လာအမှတ်ပါသော
သို့မဟုတ်ဘွိုင်လာမှတ်ပုံတင်အမှတ် မ.စ. ဖြ <i>ုံ့ဂၢ နု</i> ဖြစ်သော အား <i>ချားကျွှဲစ</i> ြာဘွိုင်လာကို
ခွင့်ပြုဖိအား!: ${\Bbb Z}_5$ မြင့္လဖြင့်လက်မှတ်ထုတ်ပေးသည့်နေ့မှ (၆)လ အသုံးပြုခွင့်ရှိသည်။
ယင်းကာလအပိုင်းအခြားကျော်လွန်သည့်အခါ ထုတ်ပေးထားသည့် ဤယာယီအသုံးပြုခွင့်လက်မှတ်
ပျက်ပြယ်စေရမည်။

ဒုတိယညွှန်ကြားရေးမှုန (ဘွိုင်လာစစ်ဆေးရေး) ရန်ကုန်တိုင်းဒေသကြီး (ည် ည် ဝင်) ဘွိုင်လာစစ်ဆေးရေးမှူး ဌာနခွဲမှူး (ဘွိုင်လာစစ်ဆေးရေး) ရန်ကုန်တိုင်းဒေသကြီး

ရက်စွဲ။ ၂၀-၅ ၂၀၂၂

မှတ်ချက်။ ။ ဘွိုင်လာဥပဒေပုဒ်မ ၁၅ပါ ပြဋ္ဌာန်းထားသည့် သက်ဆိုင်ရာအစိုးရဋ္ဌာနအဖွဲ့ အစည်းက လိုအပ်၍ တောင်းဆိုသည့်အခါ ဤလက်မှတ်ကို တင်ပြရမည်။



တိုင်းဒေသကြီးဦးစီးဌာနမှူးရုံး ရန်ကုန်တိုင်းဒေသကြီးစက်မှုကြီးကြပ်ရေးနှင့် စစ်ဆေးရေးဦးစီးဌာန ရန်ကုန်မြို့ စာအမှတ်၊ ၁၅၁၅ (၆) /ရက–၃၂/၂၀၂၁ (၄၁ဝ) ရက် စွဲ ၊၂ ၀၂ ၁ ခုနှစ်၊ ဇန်နဝါကို လ ၂၅ ရက်

အကြောင်းအရာ ။ ဘွိုင်လာတွင် ထွင်းရန် မစနံပါတ်ပုံစံပေးပို့ခြင်း

ရန်ကုန်တိုင်းဒေသကြီး၊ လြိုင်သာယာ ဆညာခံဂသန်း ဒသမ္မတ (၁၃၅)	မြို့နယ်၊ စက်မှုလုံ (1)
ရှိ <u>Tessie ကျပဂဏေ Apparel MPg: Co. Ltd- ဘက</u> အမျိုးအစား ဘွိုင်လာအား မှတ်ပုံတင်အမှတ် <u>ပဝ - ၆၅၈ မှ</u> ဘွိုင်လာပေါ်တွင် သတ်မှတ်ချက်အတိုင်း ထွင်းရန်ပူးတွဲပေးပို့ပါဒ	– အဖြစ် သတ်မှတ်ပြီး မစနံပါတ်ပုံစံကို
DZL(W) 3-1.25-BMF	•
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တိုင်းဒေသကြီးဦးစီးဌာနမှူး(, ,) (နိုင်ဝင်း၊ဒုတိယညွှန်ကြားရေးမှုး) • ဘွိုင်လာစစ်ဆေးရေး

Experior Jan Jan Jessie Myanmar Apparet Mtg. Co ltd

မိတ္တူကို

- ညွှန်ကြားရေးမှူး၊ ဘွိုင်လာစစ်ဆေးရေး၊ စက်မှုကြီးကြပ်ရေးနှင့်စစ်ဆေးရေးဦးစီးဌာန၊ နေပြည်တော်
- ရုံးလက်ခံ
- မျှောစာတွဲ

Diesel

ဘွိုင်လာမှတ်ပုံတင်အမှတ်ထွင်းရန်သတ်မှတ်ချက်

(ဘွိုင်လာဥပဒေပုဒ်မ ၂၁)

ဘွိုင်လာဥပဒေ၊ ဥပဒေဆိုင်ရာလုပ်ထုံးလုပ်နည်းများနှင့်အညီ မှတ်ပုံတင်ပြီးသော ဘွိုင်လာ ပေါ်တွင် အနက် ၀.၅ မီလီမီတာ မှ ၁ မီလီမီတာ အတွင်း ထွင်းရန် မှတ်ပုံတင်အမှတ်မှာ အောက်ပါပုံစံအတိုင်းဖြစ်သည်-



ပိုင်ရှင်/လိပ်စာ

ဘွိုင်လာအမျိုးအစား

Ms. Ton Don, Jessie Myanmar Apparel Manufacturing Co., Ltd.၊ အထည်ချုပ်လုပ်ငန်း၊ အမှတ်(၁၃၀)၊ ဆရာစံလမ်း၊ စက်မှုဇုန်(၂)၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး။

မတ်ရပ်ကျွတ် LSS1.5–1.0–Y/Q 17LSY15011



ရက်စွဲ၊ ၂၀၂၁ခုနှစ်၊ ဖေဖော်ဝါရီ လ (၁) ရက်

သိုုင်လာစစ်ဆေးရေးမှူးချုပ် ညွှန်တြားေရးမှူးချုပ် ဟောက်ဇင်း ဦး)



ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော် စက်မှုဝန်ကြီးဌာန စက်မှုကြီးကြပ်ရေးနှင့်စစ်ဆေးရေးဦးစီးဌာန ဘွိုင်လာကိုင်တွယ်ထိန်းသိမ်းသူလက်မှတ်

ဘွိုင်လာဥပဒေ ပုဒ်မ ၅ဝ



ဘွိုင်လာကိုင်တွယ်ထိန်းသိမ်းသူအမှတ်	
မှတ်ပုံတင်သည့်ရက်စွဲ	
အမည်	
အဘအမည်	
နိုင်ငံသားစိစစ်ရေးကတ်ပြားအမှတ်	
အသက်(မွေးသက္ကရာဇ်)	
ပညာအရည်အချင်း	
 တက်ရောက်ခဲ့သည့်ဘွိုင်လာသင်တန်းနှင့်	5
ရရှိခဲ့သည့်အဆင့်	
ကိုင်တွယ်ထိန်းသိမ်းခွင့်ရှိသည့်ဘွိုင်လာ	
နေရပ်လိပ်စာ	

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လက်မှတ်ထုတ်ပေးသည့်ရက်စွဲ၊ -<u>၁၃ - ၃ - ၂</u>၀၂၅ သက်တမ်းကုန်ဆုံးမည့်ရက်စွဲ၊ <u>၁၄ - ၃ - ၂</u>၀၂၅

> ၾကာ်လေ ေဆး ဘွိုင်လာစစ်ဆေးရေးမှူးချုပ် ညွှန်ကြားရေးမှုး ဘွိုင်လာစစ်ဆေးရေး

APPENDIX 8 Staff list

JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED List of Local Employee

Sr.No.	Designation	Number of Person	Salaries /Month (Kyat)	Monthly - (Kyat)	Yearly - (Kyat)
1	Assistant General Manager	1	800,000	800,000	9,600,000
2	Assistant Department Manager	3	650,000	1,950,000	23,400,000
3	H.R Manager	- 1,	500,000	500,000	6,000,000
4	Accountant	3 /	300,000	900,000	10,800,000
5	Cashier	2	250,000	500,000	6,000,000
6	Supervisor	12	320,000	3,840,000	46,080,000
7	Leader	10	350,000	3,500,000	42,000,000
8	Quality Assurance	15	280,000	4,200,000	50,400,000
9	Office Staff	7,	250,000	1,750,000	21,000,000
10	Skill Worker	1000	280,000	280,000,000	3,360,000,000
11	Unskill/Semi Skill	245	220,000	53,900,000	646,800,000
12	Staff -'Finishing	30	180,000	5,400,000	64,800,000
13	Staff - Cutting	50	180,000	9,000,000	108,000,000
14	H.R (Staff)	3	300,000	900,000	10,800,000
15	Mechanic/Technician	10	350,000	3,500,000	42,000,000
16	Driver	3	180,000	540,000	6,480,000
17	Security	5	180,000	900,000	10,800,000
	TOTAL	1,400	-	372,080,000	4,464,960,000

List Of Foreign Technicians

Sr.No.	Designation	Number of Person	Salaries / Month in (US\$)	Monthly - US\$	Yearly - US\$
1	General Manager	1	2,000	2,000	24,000
2	Deputy General Manager	11	1,500	1,500	18,000
3	Manager (Department)	3	800	2,400	28,800
4	Technician	5	600	3,000	36,000
	TOTAL	10		8,900	106,800



APPENDIX 9

Social welfare

Plot No. (130), Myay Taing Block No - Zone (2), Industrial Zone, Hlaing Tharyar Township, Yangon Region.

To

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

Date: : 29 , May, 2020.

Subject:

: Submission in Plan for the Employees of Factory With

Welfare and Peace and Harmony.

It intends to Manufacturing of Knitted Wear on CMP Basis factory in 1.195 Acres (4,835.997 Sqm) at the place so called as Plot No. (130), Myay Taing Block No - Zone (2), Industrial Zone, Hlaing Tharyar 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;

Transportation for Office Staffs (1)

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.

(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.

Plot No. (130), Myay Taing Block No - Zone (2), Industrial Zone,
Hlaing Tharyar Township, Yangon Region.

(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,

MS. TAN DAN PROMOTER

JESSIE MYANMAR APPAREL
MANUFACTURING COMPANY LIMITED

Ms. Tan Dan
Macropies, Director
Jessie Myannar Apparel Handacturing Co., Ltd

APPENDIX 10 Corporate Social Responsibility Plan

Plot No. (130), Myay Taing Block No - Zone (2), Industrial Zone,
Hlaing Tharyar Township, Yangon Region.

То

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

Date: : 29, May, 2020.

Subject:

: "JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED" Corporate Social Responsibility (CSR) Plan

We "JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED" have proposed to Myanmar Investment Commission to set up a project for Manufacturing of Knitted Wear on CMP Basis in 1.195 Acres (4,835.997 Sqm) at the place so called as Plot No. (130), Myay Taing Block No - Zone (2), Industrial Zone, Hlaing Tharyar Township, Yangon Region.

In such proposed Project" JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED " will subscribe (2%) from the net profit for CSR. The contributions are made as follows:

- 1. 25% for supporting to the all-round development of rural area.
- 2. 25% for basic health care of the employees by opening medical clinics within the factory compound, emergency healthcare program and providing allowances when any of the employee families suffer from illness.

 With respect.

Mo.Ten Den Marraging Director Jessie Myanmar Apparei Menufacturing Co.,Ltd

MS. TAN DAN

PROMOTER

APPENDIX 11 Plan For Health, Safety and Environmental

Plot No. (130), Myay Taing Block No - Zone (2), Industrial Zone,
Hlaing Tharyar Township, Yangon Region.

Plan for Health

We JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED intends to Manufacturing of Knitted Wear on CMP Basis factory and as for workers of our factory we provide for the following 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,

Ms.Ten Dan
Ms.neging Director
Jessie Myanmar Apparel Manufacturing Co.,Ltd

MS. TAN DAN
PROMOTER

Plot No. (130), Myay Taing Block No - Zone (2), Industrial Zone, Hlaing Tharyar Township, Yangon Region.

To

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

Date: : 29 , May, 2020.

: Plan for preventing of Environment Subject:

- According to above mentioned, it intends Manufacturing of Knitted Wear on 1. CMP Basis factory in 1.195 Acres (4,835.997 Sqm) at the place so called as Plot No. (130), Myay Taing Block No - Zone (2), Industrial Zone, Hlaing Tharyar Township. Yangon Region.
- As a compnay for conservation of environment we plan for the following matters. 2. 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,

Jessie Myanmar Apparel Manufacturing Co.,Ltd MS. TAN DAN

PROMOTER

Plot No. (130), Myay Taing Block No - Zone (2), Industrial Zone,
Hlaing Tharyar Township, Yangon Region.

" FIRE PRECAUTION PLAN "

- 1. We submit that it JESSIE MYANMAR APPAREL MANUFACTURING COMPANY LIMITED intends of Manufacturing of Knitted Wear on CMP Basis factory in 1.195 Acres (4,835.997 Sqm) at the place so called as Plot No. (130), Myay Taing Block No Zone (2), Industrial Zone, Hlaing Tharyar 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.

Me.Ten Dan Me.Dengling Director Jessie Myanmar Apparel Menufa**cturing Co.,Ltd**

With respect,

MS. TAN DAN PROMOTER

APPENDIX 12 Water and Soil Test Result



အကြောင်းအရာ။ မြေနမူနာ ဓာတ်ခွဲအဖြေများပေးပို့ခြင်း။ ရည် ညွှန်း ချက် ။ Jassie Myanmar မှ (၁၃.၆.၂၀၂၂) နေ့တွင် ပေးပို့သော နမူနာ။ အထက်အကြောင်းအရာပါ ကိစ္စနှင့်ပတ်သက်၍ ရည်ညွှန်းစာဖြင့် ပေးပို့ လာသော မြေနမူနာ (၁ – မျိုး) အား ဓာတ်ခွဲစစ်ဆေးပြီးဖြစ်၍ ဓာတ်ခွဲတွေ့ရှိချက် အဖြေများကို ဤစာနှင့် အတူ ပူးတွဲပေးပို့ပါသည်။

> (ဒေါက်တာသန္တာညီ) ဒုတိယညွှန်ကြားရေးမှူး ဓာတ်ခွဲခန်းတာဝန်ခံ မြေအသုံးချရေးဌာနခွဲ

DEPARTMENT OF AGRICULTURE (LAND USE)
SOIL ANALYTICAL DATA SHEET
Jessie Myanmar (13.6.2022)

Division – ရန်ကုန်တိုင်းဒေသကြီး။

Township – လှိုင်သာယာမြို့နယ်။

Sheet No. 1

Sr No. S 1 / 2022

	Sample	Moisture	Moisture pH Soil:Water 1:2.5	T GAZGAG		Organic Carbon	Humus	Total	Exchangeable (meq/100		A		Available Nutrients		
NO.	No	%		Sand %	Silt %	Clay %	Total %	%	%	% N %	Ca ²⁺	Mg ²⁺	K⁺	P (ppm) (0)	K ₂ O (mg/100gm
1	Soil Sample	6.18	7.63	86.48	10.16	3.36	100	2.13	3.67	0.261	31.24	1.42	0.88	65.67	41.57

O= Olsen Method

(ဒေါက်တာသန္တာညီ) ဒုတိယညွှန်ကြားရေးမှူး

ဓာတ်ခွဲခန်းတာဝန်ခံ

မြေအသုံးချရေးဌာနခွဲ

9

DEPARTMENT OF AGRICULTURE (LAND USE) SOIL INTERPREATATION OF RESULTS

Jess e Myanmar (13.6.2022)

Division – ရန်ကုန်တိုင်းဒေသကြီး။ Township – လှိုင်သာယာမြို့နယ်။

Sheet No. 1

Sr No. S 1 / 2022

Sr No.	Sample	pH Soil:Water	Textrure	Organic	Total	Exchangeable Cations		Available Nutrients	
		1:2.5		Carbon	N	Ca ⁺⁺	Mg ⁺⁺	Р	K ₂ O
1	Soil Sample	Moderately Alkaline	Loamy Sand	Medium	Medium	High	Low	High	High

(ဒေါက်တာသန္တာညီ)

ဒုတိယညွှန်ကြားရေးမှူး

ဓာတ်ခွဲခန်းတာဝန်ခံ

မြေအသုံးချရေးဌာနခွဲ





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

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

W0622 299

WATER QUALITY TEST RESULTS FORM

Client	Jessie Myanmar	
Nature of Water	Tube Well Water	
Location	Hlaing Thar Yar Township	
Date and Time of collection	11.6.2022	
Date and Time of arrival at Laboratory	13.6.2022	
Date and Time of commencing examination	14.6.2022	
Date and Time of completing	16.6.2022	

Results of Water Analysis

WHO Drinking Water Guideline (Geneva - 1993)

рН	6.7		6.5 - 8.5
Colour (True)	Nil	TCU	15 TCU
Turbidity	2	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	0.22	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		mg/l	
Total Dissolved Solids		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:

Approved by

Signature:

Name:

B.St (Chemistry

Name:

Soc Thit Technical Offic 150 TECH Laborately

Sr.Chemist (a division of WEG Co.,Ltd.) 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)

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

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WATER QUALITY TEST RESULTS FORM

Client	Jessie Myanmar
Nature of Water	Tube Well Water
Location	Hlaing Thar Yar Township
Date and Time of collection	11.6.2022
Date and Time of arrival at Laboratory	13.6.2022
Date and Time of commencing examination	14.6.2022
Date and Time of completing	16.6.2022

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)	Nil	mg/l	50 mg/l
Chlorine (Residual)		mg/l	
Ammonia Nitrogen (NH ₃)		mg/i	
Ammonium Nitrogen (NH ₄)		mg/l	
Dissolved Oxygen (DO)		mg/l	
Chemical Oxygen Demand (COD)		mg/l	
Biochemical Oxygen Demand (BOD)		mg/l	
(5 days at 20 °C)			×
Cyanide (CN)		mg/l	0.07 mg/l
Zinc (Zn)		mg/l	3 mg/l
Copper (Cu)		mg/l	2 mg/l
Calcium (Ca)	340	mg/l	
Magnesium (Mg)	120	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 Go

B.Sc (Chemistry, Sr.Chemist ISO Tech Laboratory Approved by

Signature:

Name:

Soc Thit

B.E (Civil) 1980, Technical Officer ISO TECH Laboratory

(a division of WEG Co.,Ltd.)





WW0622 090



WTL-RE-001

Issue Date - 01-12-2012

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

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)

WATER QUALITY TEST RESULTS FORM

Client	Jessie Myanmar	
Nature of Water	Wastewater	
Location	Hlaing Thar Yar Township	
Date and Time of collection	11.6.2022	
Date and Time of arrival at Laboratory	13.6.2022	
Date and Time of commencing examination	14.6.2022	
Date and Time of completing	19.6.2022	

Results of Water Analysis

pH	7.4		
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)	90	mg/l	
Total Solids		mg/I	
Total Suspended Solids	32	mg/l	
Total Dissolved Solids	40	mg/l	
Manganese		mg/l	
Phosphate		mg/l	
Phenolphthalein Acidity		mg/l	a a
Methyl Orange Acidity		mg/l	
Salinity		ppt	

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

Tested by Signature:

Approved by Signature:

Name:

Soc Thir

Name:

Sr.Chemist





WW0622 090



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

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WTL-RE-001 Issue Date - 01-12-2012 Effective Date - 01-12-2012

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WATER QUALITY TEST RESULTS FORM

Client	Jessie Myanmar	
Nature of Water	Wastewater	
Location	Hlaing Thar Yar Township	
Date and Time of collection	11.6.2022	
Date and Time of arrival at Laboratory	13.6.2022	
Date and Time of commencing examination	14.6.2022	
Date and Time of completing	19.6.2022	

Results of Water Analysis

Temperature (°C)		°C	
Fluoride (F)		mg/l	
Lead (as Pb)		mg/l	
Arsenic (As)		mg/l	
Nitrate (N.NO ₃)	2.4	mg/l	
Chlorine (Residual)		mg/l	
Ammonia Nitrogen (NH ₃)	0.37	mg/l	
Ammonium Nitrogen (NH ₄)		mg/l	
Dissolved Oxygen (DO)		mg/l	
Chemical Oxygen Demand (COD)	96	mg/l	
Biochemical Oxygen Demand (BOD)	30	mg/l	
(5 days at 20 °C)			:=
Cyanide (CN)		mg/l	
Zinc (Zn)	Nil	mg/l	
Copper (Cu)	Nil	mg/l	2
Silica (SiO ₂)		mg/l	

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

Tested by		Approved by	1 C.1-F
Signature:	- West	Signature:	buest.
Name:	Zaw Rem Uo	Name:	See Thit
	B.Sc (Chemistry)		B.E (Civil) 1980,
	Sr.Chemist		Technical Officer
	ISO TECH Laboratory		ISO THO! sporatory