The Environmental Management Plan for the Manufacturing of Garments on CMP basis Factory Project, implemented by
Hua Meng Myanmar Co.,Ltd
located at Plot No.(184-B),U Paing No.17/2 -18/1, No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region, Union of Myanmar,

(Environmental Management Plan)

EMP Report

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Hua Meng Myanmar Co.,Ltd

Plot No.(184B),U Paing No.17/2, 18/1 No.4 Quarter, Kangyidaunt Township, Ayeyarwaddy Division Region.

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မာတိကာ

(၁) အစီရင်ခံစာအပိုင်း(က)

သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန၊ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ရုံးအမှတ် (၅၃) နေပြည်တော်၏ ၂၀-၈-၂၀၁၉ရက်နေ့စွဲပါစာအမှတ်အီးအိုင်အေ-၁/၄-ခ(၁၆၃၅/၂၀၁၈) ဖြင့်ပေးပို့ခဲ့သည့်ပတ်ဝန်းကျင်ဆိုင်ရာစီမံခန့်ခွဲမှုအစီရင်ခံစာ(Environmental Management Plan-1st Revised)အပေါ် သဘောထားမှတ်ချက်၊ လိုက်နာဆောင်ရွက်ရန်ညွှန်ကြားချက်များနှင့်ယင်းတို့အပေါ် လိုက်နာဆောင်ရွက်ထားမှုများ။

(၂) အစီရင်ခံစာအပိုင်း(ခ)

(Environmental Management Plan-1st Revised)အပေါ်ပြင်ဆင်တင်ပြထားရှိမှု)
သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန၏သဘောထားမှတ်ချက်နှင့်လိုက်နာဆောင်ရွက်ရန် ညွှန်ကြားချက်နှင့်ယင်းအပေါ် လိုက်နာဆောင်ရွက်ထားမှုများ။

(၃) နောက်ဆက်တွဲများ။

အစီရင်ခံစာအပိုင်း(က)

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏သဘောထားမှတ်ချက်နှင့်လိုက်နာဆောင်ရွက်ရန်ညွှန်ကြားချက်နှင့်ယင်းအပေါ်လိုက်နာဆောင်ရွက်ထားမှုများ။(Comment Response Table)

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သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန၊ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ (Environmental Management Plan-1st Revised)**အပေါ် သဘောထားမှတ်ချက်၊လိုက်နာဆောင်ရွက်ရန်ညွှန်ကြားချက်များအပေါ် ကုမ္ပဏီဘက်မှလိုက်နာဆောင်ရွက်ထားချက်များ။**

ရည်ညွှန်းချက်။ သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနရုံး၏ (၂၀-၈-၂၀၁၉) ရက်စွဲ ပါစာအမှတ်အီးအိုင်အော/၄(ခ)(၁၆၃၅/၂၀၁၉)။

ရည်ညွှန်းချက်ပါ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနရုံး၏ စာအရပေးပို့လာသည့်သဘောထားမှတ်ချက်နှင့်အညီ ပြင်ဆင်ဖြည့်စွက်ရေးဆွဲ၍ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနသို့ပြန်လည်တင်ပြရန်ညွှန်ကြားချက်အားအောက်ပါအတိုင်းလိုက်နာတင်ပြအပ်ပါသည်။

ရည်ညွှန်းစာ၏အပိုဒ်(၃)

သို့ဖြစ်ပါ၍ Hua Meng Myanmar Co.,Ltd ၏ CMP စနစ်ဖြင့် အထည်ချုပ်လုပ်ငန်းအတွက်ဒုတိယအကြိမ်ပြန်လည်တင်ပြလာသည့်ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan-1st Revised)အစီရင်ခံစာကိုပူးတွဲဇယားပါအချက်များအတိုင်းပြည့်စုံစွာပြင်ဆင်ဖော်ပြ၍ညွှန်ကြားရေးမှူးချုပ်ရုံး၊ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန၊နေပြည်တော်သို့ပြန်လည်တင်ပြရန်။

အဆိုပါညွှန်ကြားချက်အရအစီရင်ခံစာကိုသဘောထားအကြံပြုချက်များနှင့်အညီဖြည့်စွက်၍ယခု(ပြင်ဆင်-၂)အစီရင်ခံစာကိုဆက်လက်တင်ပြအပ်ပါသည်။

စဉ်	ကနဦးတင်ပြမှုအပေါ် စိစစ်သုံးသပ်၍သဘောထားပြန်ကြားချက်	ကနဦးပြန်ကြားမှုအပေါ် လိုအပ်သည်များအတွက်ထပ်မံတင်ပြရန်အကြံပြုချက်	လိုက်နာဆောင်ရွက်ထားရှိမှု	စာမျက်နှာ
(1)	အကျဉ်းချုပ်အစီရင်ခံစာ			
	အကျဉ်းချုပ်အစီရင်ခံစာတွင်အစီရင်ခံစာတစ်ခုလုံးကိုခြုံငုံသိရှိနိုင်သောအောက် ဖော်ပြပါအချက်အလက်များအားထပ်မံဖြည့်စွက်ဖော်ပြရန်- • လက်ရှိပတ်ဝန်းကျင်အခြေအနေ၊ • လူမှုစီးပွါးရေးအပေါ် သက်ရောက်မှုများနှင့်လျော့နည်းစေရန်ဆောင်ရွက်မည့်လုပ်ငန်းများ၊ • မူဝါဒနှင့်ဥပဒေမူဘောင်များ၊ • ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုနှင့်စောင့်ကြပ်ကြည့်ရှုခြင်းအစီအစဉ်၊ • အများပြည်သူသိုသတင်းအချက်အလက်ထုတ်ဖော်ချက်၊ • နိဂုံးနှင့်အကြံပြုချက်။	အစီရင်ခံစာတွင်လက်ရှိပတ်ဝန်းကျင်အခြေအနေဆိုင်ရာအဓိကအချက်အလက်များကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်အများပြည်သူသိုသတင်းအချက်အလက်ထုတ်ဖော်မှုဆိုင်ရာအဓိကအချက်အလက်များကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊	ဖြည့်စွက် တင်ပြအပ်ပါသည်။ ဖြည့်စွက် တင်ပြအပ်ပါသည်။	Pg.9 Pg.10
(2)	ကတိကဝတ်			
	အစီရင်ခံစာတွင်အောက်ဖော်ပြပါကတိကဝတ်များကိုလိုက်နာဆောင်ရွက်မည်ဖြစ်ကြောင်းအတည်ပြုဝန်ခံချက်နှင့်အစီရင်ခံစာတွင်ထည့်သွင်းဖော်ပြရန်။ • စီမံကိန်းလုပ်ငန်းများပြီးစီး၍စီမံကိန်းပိတ်သိမ်းချိန်တွင်လူမှုဝန်းကျင်အားထိခိုက်မှုအနည်းဆုံးဖြစ်စေရန်ဆောင်ရွက်မည်ဖြစ်ကြောင်းနှင့်ထိခိုက်မှုများရှိလာပါကထိခိုက်မှုအနည်းဆုံးဖြစ်စေမည့်အစီအစဉ်များဆောင်ရွက်မည်ဖြစ်ကြောင်း။	အစီရင်ခံစာတွင်ဤလုပ်ထုံးလုပ်နည်းအပါအဝင်သက်ဆိုင်ရာဥပဒေများကိုတိကျစွာလိုက်နာ၍ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကိုရေးဆွဲထားကြောင်းဖော်ပြပြီးစီမံကိန်းအဆိုပြုသူမှဝန်ခံကတိပြုလက်မှတ်ထိုးရန်	စီမံကိန်းအဆိုပြုသူကလည်းဝန်ခံကတိပြုလက်မှတ်ထိုးအပ်ပါသည်။	Pg.11 ~13
(3)	မူဝါဒ၊ဥပဒေနှင့်မူဘောင်များ			
	အစီရင်ခံစာတွင်ရုပ်သိမ်းပြီးဥပဒေများပါဝင်ပါကထည့်သွင်းဖော်ပြခြင်းမပြုရန်နှင့်စီမံကိန်းနှင့်သက်ဆိုင်သည့်အောက်ဖော်ပြပါတည်ဆဲဥပဒေများအားလိုက်နာရမည့်ပုဒ်မများကိုညွှန်းဆို၍ Legal Commitment များထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ • နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှုဥပဒေ (၂၀၁၂) • ကုန်သွယ်ခွန်ဥပဒေ(၁၉၉၀)	စီမံကိန်းအဆိုပြုသူမှမြန်မာနိုင်ငံရှိတည်ဆဲဥပဒေများအားလုံးကိုလိုက်နာရမည်ဖြစ်သော်လည်းစီမံကိန်းနှင့်သက်ဆိုင်သည့်အဓိကလိုက်နာရမည့်အောက်ဖော်ပြပါဥပဒေများကိုခေါင်းစဉ်များသာဖော်ပြခြင်းမပြုဘဲပုဒ်မ၊ပုဒ်မခွဲများနှင့်အတူအစီရင်ခံစာတွင်ထပ်မံဖြည့်စွက်ဖော်ပြရန်နှင့်လိုက်နာဆောင်ရွက်မည်ဖြစ်ကြောင်းဖော်ပြရန်၊	ဖြည့်စွက်ပြင်ဆင် တင်ပြအပ်ပါသည်။	Pg.43

	• သဘာဝဘေးအန္တရာယ်ဆိုင်ရာစီမံခန့်ခွဲမှုဥပဒေ၊(၂၀၁၃)၊ • အလုပ်ရုံများအက်ဥပဒေ (၁၉၅၁)၊ • ဓာတုပစ္စည်းနှင့်ဆက်စပ်ပစ္စည်းများအန္တရာယ်မှတားဆီးကာကွယ်ရေးဥပဒေ (၂၀၁၃)၊ • ဘွိုင်လာဥပဒေ၊ (၂၀၁၅)၊ • ပတ်ဝန်းကျင်အရည်အသွေးဆိုင်ရာလမ်းညွှန်ချက်များ(၂၀၁၅) ကိုအမျိုးသားပတ်ဝန်းကျင် ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု)လမ်းညွှန်ချက်များ(၂၀၁၅) ဟုပြန်လည်ပြင်ဆင်ဖော်ပြရန်၊ အခြားသက်ဆိုင်နိုင်သည့်ဥပဒေ၊နည်းဥပဒေများရှိပါကဖော်ပြရန်၊	• နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှုဥပဒေ (၂၀၁၂) • ကုန်သွယ်ခွန်ဥပဒေ(၁၉၉၀) • သဘာဝဘေးအန္တရာယ်ဆိုင်ရာစီမံခန့်ခွဲမှုဥပဒေ၊(၂၀၁၃)၊ • အလုပ်ရုံများအက်ဥပဒေ (၁၉၅၁)၊ • ဓာတုပစ္စည်းနှင့်ဆက်စပ်ပစ္စည်းများအန္တရာယ်မှတားဆီးကာကွယ်ရေးဥပဒေ (၂၀၁၃)၊ • ဘွိုင်လာဥပဒေ၊ (၂၀၁၅)၊ • ပတ်ဝန်းကျင်အရည်အသွေးဆိုင်ရာလမ်းညွှန်ချက်များ(၂၀၁၅)ကိုအမျိုးသားပတ်ဝန်းကျင် ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု)လမ်းညွှန်ချက်များ(၂၀၁၅)ဟုပြန်လည်ပြင်ဆင်ဖော်ပြရန်၊ အခြားသက်ဆိုင်နိုင်သည့်ဥပဒေ၊နည်းဥပဒေများရှိပါကဖော်ပြရန်၊		
(4)	လက်ရှိပတ်ဝန်းကျင်အခြေအနေ။			
	• စီမံကိန်းတည်ရှိရာနေရာဒေသအပေါ် မူတည်၍ရာသီဥတု၊မြေမျက်နှာသွင်ပြင်၊မိုးရွာသွန်းမှု၊စိုထိုင်းဆ၊လူမှုပတ်ဝန်းကျင်အခြေအနေတို့ကိုဖော်ပြရန်၊ • ဆူညံသံ၊လေအရည်အသွေး၊မြေအရည်အသွေးတို့၏လက်ရှိပတ်ဝန်းကျင်အခြေအနေများမှတိုင်းတာခဲ့သည့်ရလဒ်များကိုအမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု)လမ်းညွှန်ချက်များ(သို့မဟုတ်)နိုင်ငံတကာစံချိန်စံညွှန်းနှင့်နှိုင်းယှဉ်၍ထည့်သွင်းဖော်ပြရန်၊ • စီမံကိန်းအနီးဝန်းကျင်ရှိလူမှုရေးဆိုင်ရာအချက်အလက်များနှင့်စီးပွါးရေးဆိုင်ရာအချက်အ လက်များကိုထည့်သွင်းဖော်ပြရန်၊	• စီမံကိန်းတည်ရှိရာနေရာဒေသ၏ဘူမိဗေဒ၊ရာသီဥတု၊မြေမျက်နှာသွင်ပြင်၊အပူချိန်၊မိုးရေချိန်၊စိုထိုင်းဆ၊လူဦးရေ၊ ကိုးကွယ်သည့်ဘာသာ၊ပြည်တွင်းစီးပွါးရေး၊ပို့ဆောင်ဆက်သွယ်ရေး၊ပညာရေး၊ကျန်းမာရေးဆိုင်ရာအချက်အလက်များကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ • အစီရင်ခံစာတွင်လေအရေအသွေးကိုတိုင်းတာပြီး၊တိုင်းတာထားသောပါရာမီတာများ၊တိုင်းတာထားသည့်နေ ရာ၊တိုင်းတာထားသည့် နေ့ရက်၊ရယူသည့်နည်းလမ်း၊ ကိုးကြေးနိုတ်အမှတ်များ၊အဆိုပါတိုင်းတာထားသည့် နေရာမှာစီမံကိန်းမှပတ်ဝန်းကျင်အပေါ် ထိခိုက်နိုင်မှုအတွက်လုံလောက်မှုရှိမရှိ၊တိုင်းတာထားသည့်ကိရိယာတို့ကိုထည့်သွင်းဖော်ပြရန်နှင့်တိုင်းတာမှုရလဒ်များကိုနိုင်ငံတကာစံချိန်စံညွှန်းဖြင့်နှိုင်းယှဉ်ဖော်ပြရန်၊ • အစီရင်ခံစာတွင်မြေပေါ် ရေအရည်အသွေးနှင့်မြေအောက်ရေအရည်အသွေးတိုင်းတာ၍တိုင်းတာမှုရလဒ်များကိုအထောက်အထားခိုင်လုံသောဓာတ်ခွဲခန်းရလဒ်များ၊တိုင်းတာခဲ့သည့်အချိန်၊ရယူသည့်နည်း လမ်းနှင့်တိုင်းတာမှုရလဒ်များကိုနိုင်ငံတကာစံချိန်စံညွှန်းဖြင့်နှိုင်းယှဉ်၍ဖော်ပြရန်၊ • အစီရင်ခံစာတွင်ဆူညံသံတိုင်းတာပြီးတိုင်းတာထားသည့်နေရာ၊ကိုးကြေးနိုတ်အမှတ်များ၊အဆိုပါတိုင်းတာထားသည့်နေရာမှာစီမံကိန်းမှပတ်ဝန်းကျင်အပေါ် ထိခိုက်နိုင်မှုအတွက်လုံလောက်မှုရှိ/မရှိ၊တိုင်းတာ ထားသည့်ကိရိယာတို့ကိုထည့်	ပြင်ဆင်ရေးသားတင်ပြအပ်ပါသည်။	Pg.32 Pg.32 Pg.56 Pg32

		သွင်းဖော်ပြရန်၊တိုင်းတာမှုရလဒ်များကို Day time, Night time ခွဲခြားဖော်ပြရန်နှင့်နိုင်ငံတကာစံချိန်စံညွှန်း ဖြင့်နှိုင်းယှဉ်၍ဖော်ပြရန်၊ • အစီရင်ခံစာတွင်လက်ရှိပတ်ဂန်းကျင်အခြေအနေနှင့်ပတ်သက်၍ စီမံကိန်းတည်ရှိရာနေရာဒေသ၏ဘူမိဗေဒ၊ ရာသီဥတု၊အပူချိန်၊မိုးရေချိန်၊စိုထိုင်းဆ၊ လူဦးရေ၊ကိုးကွယ်သည့်ဘာသာ၊ ပြည်တွင်းစီးပွါးရေး၊ပို့ဆောင်ဆက်သွယ်ရေး၊ ပညာရေး၊ကျန်းမာရေးဆိုင်ရာအချက်အလက်များကိုကောက်ယူခဲ့သည့်အချိန်နှင့်ရယူခဲ့သည့်နည်းလမ်းတို့ကိုထည့်သွင်းဖော်ပြရန်၊		
(5)	စီမံကိန်းအကြောင်းအရာဖော်ပြချက်များ			
	• အစီရင်ခံစာရေးသားပြုစုသူတစ်ဦးချင်း၏လုပ်ငန်းအတွေ့အကြုံ၊ကျွမ်းကျင်မှုနယ်ပယ်နှင့် ပညာရပ်ဆိုင်ရာအရည်အချင်းများစသည်တို့ကိုဖော်ပြရန်။ • စီမံကိန်းဆောင်ရွက်သူ၏အကြောင်းအရာများ(ဆက်သွယ်ရန်ဖုန်းနံပါတ်၊အီးမေးလ်၊တာဂန်ခံပုဂ္ဂိုလ်စသည်ဖြင့်)ဖော်ပြ ရန်၊ • Washing Processes တွင်အသုံးပြုသည့်ရေပမာဏ (တစ်ရက်/တစ်လ)အားဖော်ပြရန်၊ • အစီရင်ခံစာတွင်ရေအရင်းအမြစ်အားမြေအောက်ရေမှရယူအသုံးပြုမည်ဖြစ်ကြောင်းဖော်ပြထားသော်လည်းရေရယူသည့်အရင်းအမြစ်နေရာ၊အဆိုပြုလုပ်ငန်းမှလိုအပ်သည့်ရေပမာဏအပေါ် လုံလောက်မှုရှိ/မရှိဖော်ပြရန်၊ • အဆိုပြုစီမံကိန်းလုပ်ငန်းလည်ပတ်ဆောင်ရွက်ခြင်းမှထွက်ရှိလာမည့်စွန့်ပစ်အညစ်အကြေး များနှင့်စွန့်ပစ်အစိုင်အခဲ၊စွန့်ထုတ်အရည်၊စွန့်ပစ်ရေတို့၏ထွက်ရှိမှုပမာဏ၊စွန့်ပစ်မည့်နည်း လမ်းနှင့်စည်ပင်သာယာနှင့်ချိတ်ဆက်ဆောင်ရွက်မည့်အစီအစဉ်များရှိပါကဖော်ပြရန်၊ • စီမံကိန်းစတင်တည်ထောင်ခဲ့သည့်အချိန်ကာလနှင့်ထုတ်လုပ်မှုစတင်ခဲ့သည့်အချိန်ကာလတို့ကိုဖော်ပြရန်၊ • အဆိုပြုလုပ်ငန်းအတွက်လိုအပ်သောကုန်ကြမ်းပစ္စည်းများရယူမည့်နေရာကိုဖော်ပြရန်၊ • အဆိုပြုလုပ်ငန်းမှထုတ်လုပ်သည့်ထုတ်ကုန်အမျိုးအစားများကိုဇ	အစီရင်ခံစာတွင် အစီရင်ခံစာရေးသားပြုစုသူတစ်ဦးချင်း၏လုပ်ငန်း အတွေ့အကြုံကို ထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်စွန့်ပစ်ပစ္စည်းများအားစွန့်ပစ်သည့်နည်းလမ်း၊မစွန့်ပစ်မီယာယီသိုလှောင်ထားရှိသောနေရာ၊မီးဘေးအွန္တရာယ်အတွက် ပြင်ဆင်ထားသည့်အစီအစဉ်တို့ကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်စွန့်ပစ်ပစ္စည်းများအားစွန့်ပစ်ရာ၌စည်ပင်နှင့်ချိတ်ဆက်ထားရှိပါကဆောင်ရွက်မည့်အစီအစဉ်များကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်စီမံကိန်းစတင်တည်ထောင်ခဲ့သည့်အချိန်ကာလနှင့်ထုတ်လုပ်မှုစတင်ခဲ့သည့်အချိန်ကာလတို့ကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်လိုအပ်သောကုန်ကြမ်းပစ္စည်းများရယူသည့်နေရာကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်အဆိုပြုလုပ်ငန်းမှထုတ်လုပ်သည့်ထုတ်ကုန်အမျိုးအစားများကိုနေ့အလိုက်၊လအလိုက်၊နှစ်အလိုက်ထွက်ရှိမှုပမာဏကိုထပ်မံဖြည့်စွက်ဖော် ပြရန်၊	ဖြည့်စွက် တင်ပြအပ်ပါသည်။ ဖြည့်စွက် တင်ပြအပ်ပါသည်။ ဖြည့်စွက် တင်ပြအပ်ပါသည်။ အဂီစိတွင်းနေရာဖော်ပြထားပါသည်။လုံလောက်မှုရှိပါသည်။ ထို့အပြင်ရေဆိုးသန့်စဉ်စနစ်မှရရသန့်များလည်းထွက်ရှိပြီဖြစ်ပါသည်။ ဖြည့်စွက် တင်ပြအပ်ပါသည်။ 2016, 2018 ။ China ဖြည့်စွက် တင်ပြအပ်ပါသည်။	Pg32 Pg32 Pg32

	နှအလိုက်၊လအလိုက်၊နှစ်အလိုက်ထွက်ရှိမှုပမာဏကိုဖော်ပြရန်၊			
(6)	ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများနှင့်လျော့နည်းစေရန်ဆောင်ရွက်မည့်နည်းလမ်းများ			
	• Waste water များကို Treatment ပြုလုပ်သည့်နည်းစနစ်အားဖော်ပြရန်၊ • အဓိက Emission ထုတ်လွှတ်နိုင်သည့်ဘွိုင်လာခေါင်းတိုင်မှလေထုထဲသို့ထုတ်လွှတ်သည့် လေအရည်အသွေးအားတိုင်းတာပြီး NEQEG ဖြင့်နှိုင်းယှဉ်ဖော်ပြရန်နှင့်ဘွိုင်လာခေါင်းတိုင်အမြင့်အားဖော်ပြရန်၊ • စက်ရုံမှစွန့်ပစ်ပစ္စည်း (အစိုင်အခဲ)များနှင့်ပတ်သက်၍ထွက်ရှိမှုပမာဏနှင့်စွန့်ပစ်ပစ္စည်း စီမံ ခန့်ခွဲမှုစနစ် (Collection Transportation, Treatment, Disposal)ကိုဖော်ပြပေးရန် Layout Map များဖြင့်လည်း ဖော်ပြပေးရန်) • ပတ်ဝန်းကျင်အပေါ် အဓိကထိခိုက်မှုများအတွက်လျော့ချမည့်နည်းလမ်း၊လျော့ချခြင်းပြုလုပ်မည့်အဖွဲ့အစည်းတာဝန်ဝတ္တရား၊အရိန်ဇယားတို့အားဖော်ပြပေးရန်၊ • သတ်မှတ်ထားသောစံနှုန်းတန်ဖိုးများထက်ကျော်လွန်နေသော Total Suspended Solids နှင့် COD တန်ဖိုးများအားလျော့ချမည့်နည်းလမ်းများကိုထည့်သွင်းဖော်ပြရန်၊ • အစီရင်ခံစာပြန်လည်တင်ပြချိန်တွင်ရေဆိုးသန့်စင်စက်ရုံတည်ဆောက်ပြီးစီးပါကရေဆိုးစွန့်ပစ်မည့်နည်းစနစ်ကိုအသေးစိပ်ဖော်ပြပေးရန်၊ • အဆိုပြုစီမံကိန်းမှထွက်ရှိလာသောအစိုင်အခဲစွန့်ပစ်ပစ္စည်းဖြစ်သောပိတ်ဖြတ်စများကိုဘွိုင်လာအတွက်လောင်စာအဖြစ်အသုံးပြုမည်ဆိုပါကအဆိုပါဖြတ်စများတွင် Synthetic Fibre ပါဝင်နေသဖြင့်လေအရည်အသွေးနှင့်အနံသိသာစွာထိခိုက်နိုင်သောကြောင့်လောင်စာအဖြစ်	အစီရင်ခံစာတွင်ဘွိုင်လာခေါင်းတိုင်မှလေထုထဲသို့ထုတ်လွှတ်သည့်အခိုးအငွေ့အားတိုင်းတာပြီး NEQEG ဖြင့်ထပ်မံနှိုင်းယှဉ် ဖော်ပြရန်၊ အစီရင်ခံစာတွင်စွန့်ပစ်ပစ္စည်းစီမံခန့်ခွဲမှုစနစ် Collection | Transportation |Treatment|Disposal တို့ကိုရှင်းလင်းသော ဓာတ်ပုံမှတ်တမ်းများဖြင့်ထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်ပတ်ဝန်းကျင်အပေါ် အဓိကထိခိုက်မှုများအားလျော့နည်းစေရန်ဆောင်ရွက်မည့်အစီအစဉ်အားထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်ထိခိုက်မှုများအတွက်လျော့ချမည့်နည်းလမ်း၊လျော့ချခြင်းပြုလုပ်မည့်အဖွဲ့အစည်းတာဝန်ဝတ္တရား၊အချိန်ဇယားတို့အားထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်သတ်မှတ်ထားသောစံချိန်စံနှုန်းတန်ဖိုးများထက်ကျော်လွန်နေသော Total Suspended Solids နှင့် COD တန်ဖိုးများအားလျော့ချမည့်နည်းလမ်းများကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်ဘွိုင်လာမှထွက်ရှိသောပြာများအားစွန့်ပစ်သည့်နည်းလမ်းနှင့်နောက်ဆုံးစွန့်ပစ်သည့်နေရာတို့ကိုဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်အဆိုပြုလုပ်ငန်းမှပတ်ဝန်းကျင်ကိုအဓိကထိခိုက်နိုင်သော Impact တို့ကိုတွက်ချက်ရာတွင်အသုံးပြုသည့် Method ကိုဖြည့်စွက်ဖော်ပြရန်၊	ပြင်ဆင်ရေးသားတင်ပြအပ်ပါသည်။ ပြင်ဆင်ရေးသားတင်ပြအပ်ပါသည်။ ပြင်ဆင်ရေးသားတင်ပြအပ်ပါသည်။ ပြင်ဆင်ရေးသားတင်ပြအပ်ပါသည်။ ပြင်ဆင်ရေးသားတင်ပြအပ်ပါသည်။ အသေးစိတ်ကိုနောက်ဆက်တွဲ တွင် တင်ပြ အပ်ပါသည်။ အသုံးမပြုပါ။	Pg.81

	သုံးစွဲခြင်းမပြုရန်၊			
(၇)	ကျန်းမာရေးနှင့်ဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ်			
	• လုပ်ငန်းခွင်ကျန်းမာရေးနှင့်ဘေးအန္တရာယ်ကင်းရှင်းရေးတို့နှင့်ပတ်သက်၍သုံးစွဲမည့်ရံပုံငွေလျာထားမှုနှင့်ထောက်ပံ့မည့်အစီအစဉ်၊ဝန်ထမ်းများအတွက်နေထိုင်ရေး၊သန့်ရှင်းသော သောက်သုံးရေရရှိရေးနှင့်ကျန်းမာရေးစောင့်ရှောက်မှုပေးနိုင်ရေးဆောင်ရွက်ထားရှိမှုအစီအစဉ်တို့အားထည့်သွင်းဖော်ပြရန်၊	အစီရင်ခံစာတွင်ဝန်ထမ်းများအတွက်နေထိုင်ရေးစီစဉ်ထားရှိမှုအစီအစဉ်အားထပ်မံဖြည့်စွက်ဖော်ပြရန်၊	ဝန်ထမ်းများအတွက်အဆောင်စီစဉ်မထားပါ။	
(၈)	ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုနှင့်စောင့်ကြပ်ကြည့်ရှုခြင်းအစီအစဉ်			
	• ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုနှင့်စောင့်ကြပ်ကြည့်ရှုခြင်းတို့ဆောင်ရွက်မည့်အဖွဲ့အစည်းအမည်၊၄င်းတို့၏တာဝန်နှင့်ဝတ္တရားများ၊စောင်ကြပ်ကြည့်ရှုခြင်းလုပ်ငန်းစဉ်တို့ကိုထည့်သွင်းဖော်ပြရန်၊ • စောင့်ကြပ်ကြည့်ရှုခြင်းအစီအစဉ်တွင်လုပ်ငန်းလည်ပတ်ခြင်းမှထွက်ရှိလာမည့်စွန့်ပစ်ပစ္စည်းများအတွက် Parameter သတ်မှတ်ဖော်ပြရန်၊ • ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့ချမည့်လုပ်ငန်းစဉ်နှင့်ထွက်ရှိလာမည့်စွန့်ပစ်ပစ္စည်းများအပေါ် စောင့်ကြပ်ကြည့်ရှုရန်အတွက်သုံးစွဲမည့်ရံပုံငွေအားထည့်သွင်းဖော်ပြရန်၊	အစီရင်ခံစာတွင်စောင့်ကြပ်ကြည့်ရှုခြင်းတို့ဆောင်ရွက်မည့်အဖွဲ့အစည်းအမည်၊အဖွဲ့ဝင်တစ်ဦးချင်းစီ၏အမည်၊ရာထူး၊လုပ်ငန်းအတွေ့အကြုံ၊တာဝန်ယူဆောင်ရွက်မည့်အပိုင်းတို့ကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်စီမံကိန်းတည်ဆောက်ရေးကာလ၊လည်ပတ်ချိန်ကာလနှင့်ပိတ်သိမ်းချိန်ကာလတို့တွင်ပတ်ဝန်းကျင်အပေါ် အဓိကထိခိုက်နိုင်မှုနှင့်လျော့ချမည့်နည်းလမ်းများ၊ပတ်ဝန်းကျင်ထိခိုက်မှုများကိုလျော့ချမည့်အစီအစဉ်တို့ကိုအချိန်ဇယားဖြင့်ထည့်သွင်းဖော်ပြရန်၊	ဝန်ထမ်းအပြောင်းအလဲရှိမှုကြောင့်လုပ်ဆောင်မည့်တစ်ဦးချင်းအမည်ကိုယခုအစီရင်ခံစာအတည်ပြုပြီးမှဆက်လက်တင်ပြခွင့်ပြုပါရန်။ ပြင်ဆင်ရေးသားတင်ပြအပ်ပါသည်။	
(၉)	စီမံကိန်းကြောင့်ထိခိုက်ခံစားရသည့်ဒေသခံပြည်သူများအတွက်ဆောင်ရွက်ပေးမည့်ဖွံ့ဖြိုးရေးအစီအစဉ်			
	• ရံပုံငွေမလုံလောက်ပါကထပ်မံဖြည့်သွင်းအကောင်အထည်ဖော်မည်ဖြစ်ကြောင်းထည့်သွင်း ဖော်ပြရန်၊	အစီရင်ခံစာတွင်ရံပုံငွေမလုံလောက်ပါကထပ်မံဖြည့်သွင်းအကောင်အထည်ဖော်မည်ဖြစ်ကြောင်းထပ်မံဖြည့်စွက်ဖော်ပြရန်၊	ပြင်ဆင်ရေးသားတင်ပြအပ်ပါသည်။	Pg.
(၁၀)	အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်းနှင့်သတင်းအချက်လက်များထုတ်ဖော်တင်ပြခြင်း			
	• စီမံကိန်းကြောင့်ဖြစ်ပေါ်နိုင်သည့်ပတ်ဝန်းကျင်ထိခိုက်မှုအပေါ် လျော့ချမည့်နည်းလမ်းများအတွက်ဆောင်ရွက်ထားရှိမည့်အစီအစဉ်တို့အားအများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်း၊သ တင်းအချက်အလက်ထုတ်ဖော်ခြင်းနှင့်ဆွေးနွေးညှိနှိုင်းမှုရလဒ်တို့အားထည့်သွင်းဖော်ပြရန်၊ • စီမံကိန်းနှင့်ပတ်သက်၍ပြည်သူတို့မှသဘောထားတင်ပြလိုပါကကုမ္ပဏီရုံးခန်းသို့ဆက်သွယ်နိုင်မည့် mail လိပ်စာအားထည့်သွင်းဖော်ပြရန်၊	အစီရင်ခံစာတွင်အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်းရလဒ်ကိုထပ်မံဖြည့်စွက်ဖော်ပြရန်၊ အစီရင်ခံစာတွင်အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးသည့်နေရာ၊တက်ရောက်သည့်ဦးရေ၊အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်းရလဒ်အပေါ် ဆောင်ရွက်ပေးမည့်အစီအစဉ်တို့ကိုဖြည့်စွက်ဖော်ပြရန်၊	ပြင်ဆင်ရေးသားတင်ပြအပ်ပါသည်။	Pg.
	အထွေထွေ			

	EIA Procedure အပိုဒ် ၁၀၈ အရ စီမံကိန်းအဆိုပြုသူသည်ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်၏ ဇယားပါအတိုင်းစောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာကိုဝန်ကြီးဌာနသို့ (၆)လ တစ်ကြိမ်တင်ပြရန်၊ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်းအပိုဒ် ၇၇ အရ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် (EMP) (Soft Copy) ကိုပူးတွဲတင်ပြရန်၊ ပြန်လည်ရေးဆွဲမည့် EMP အစီရင်ခံစာတွင်ယခုပေးပို့သောအ ကြံပြုချက်တစ် ခုချင်းစီအလိုက်ဖြေရှင်းချက်များကိုအစီရင်ခံစာ ၏မည်သည့်အပိုင်းတွင်ရေးသား ထားသည်ကိုဖော်ပြသည့် (Comment Response Table) ကိုဖော်ပြပေးရန်၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကိုပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလု ပ်ထုံးလုပ်နည်းအပိုဒ် ၆၃ (ဇ)ပါအစီအစဉ်အတိုင်းရေးသားတင်ပြရန်၊	EIA Procedure အပိုဒ် ၁၀၈ အရ စီမံကိန်းအဆိုပြုသူသည်ပတ်ဝန်းကျင်စီမံခန့် ခွဲမှုအစီအစဉ်၏ ဇယားပါအတိုင်းစောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာကိုဝန်ကြီးဌာန သို့ (၆)လတစ်ကြိမ်တင်ပြရန်၊ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်းအပိုဒ် ၇၇ အရ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် (EMP) (Soft Copy) ကိုပူးတွဲတင်ပြရန်၊ ပြန်လည်ရေးဆွဲမည့် EMP အစီရင်ခံစာတွင်ယခုပေးပို့သောအကြံ ပြုချက်တစ်ခု ချင်း စီအလိုက်ဖြေရှင်းချက်များကိုအစီရင်ခံစာ၏မည် သည့်အပိုင်းတွင်ရေးသား ထားသည်ကိုဖော်ပြသည့် (Comment Response Table) တွင်ဖော်ပြထားသော စာမျက်နှာနံပါတ်များ မှာအကြောင်းအရာများကိုပြင်ဆင်ဖြည့်စွက်ထားသည့်စာ မျက်နှာနံပါတ်များနှင့်ကိုက်ညီမှုမရှိကြောင်း၊အစီရင်ခံစာတွင်စာမျက်နှာတစ်ခုချင်း စီအလိုက်ဖော်ပြထားသောစာမျက်နှာနံပါတ်များမှာအစီအစဉ်တကျမရှိကြောင်း နှင့်ပြင်ဆင်ဖြည့်စွက်ထားသည့်အကြောင်းအရာများကိုအစီရင်ခံစာစာအုပ်၏ သက်ဆိုင်ရာအခန်း၊သက်ဆိုင်ရာခေါင်းစဉ်အောက်တွင်အမှန်တကယ်ဖြည့်စွက် ရေးသားဖော်ပြရန်၊	ယခုတင်ပြသည့်ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုပါစောင့်ကြပ်ကြည့်ရှု မည့်အစီအစဉ်ကိုဦးစွာအတ ည်ပြုပေးရန်လိုအပ်ပါသည်။ (EMP) (Soft Copy) ကိုပူးတွဲတင်ပြပါသည်၊ ပြင်ဆင်ရေးသားတင်ပြ အပ်ပါသည်။ လိုက်နာတင် ပြအပ်ပါသည်

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ADB	Asian Development
AIDS	Acquired Immuno Defiency Syndrome
BC	Before Construction
DC	During Construction
ECC	Environmental Compliance Certificate
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
HIV	Human Immunodefiency Virus
IFC	International Finance Aorporation
MONREC	Ministry of Natural Resources & Environmental Conservation
OS	Operation Stage
OHS	Occupational Health & Safty
PAP	Project Affected People
SIA	Social Impact Assessment

Hua Meng Myanmar Co., Ltd၏ဧရာဝတီတိုင်းဒေသကြီးကန်ကြီးထောင့်မြို့ နယ်အမှတ်၄ရပ်ကွက်၊ ကငးအမှတ် (၁၈၄-ခ)(၁၈၅-စီ)ဦးပိုင်အမှတ်၁၇/၂၁၈/၁ ရှိမြေ(၆. ၇၃)ဧကမြေပေါ်တွင်ရာခိုင်နှုန်းပြည့်မြန်မာနိုင်ငံသားရင်းနှီးမြှုပ်နှံမှုဖြင့် **CMP** စနစ်ဖြင့်အထည်ချုပ်ခြင်းလုပ်ငန်းကိုမြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုဥပဒေနှင့်အညီအကောင်အထည်ဖော်ဆောင်ရွက်သွားရာတွင် သဘာဝပတ်ဝန်းကျင်နှင့်လူမှုစီးပွါးရေးတို့ အပေါ်ထိခိုက်မှုများမဖြစ်ပေါ်စေရန်စီမံကိန်းဖော်ဆောင်သူမှသဘာဝပတ်ဝန်းကျင်ဆိုင်ရာစီမံထားရှိမှု Environmental Management Plan (EMP)ကိုကျင့်သုံးစီရင်ခံစာဖြင့်ရေးသားဖော်ပြအပ်ပါသည်။

ယခုစီမံကိန်းသည် ပြည်ပပို့ကုန်တိုးမြင့်ပြီး၊ SME ကဏ္ဍဖွံ့ဖြိုးတိုးတက်လာစေမည့်လုပ်ငန်းအမျိုးအစားဖြစ်ပါသည်။ စီမံကိန်း၏လုပ်ငန်းစဉ်သည်အောက်ပါအတိုင်းဖြစ်ပါသည်။ (1) Raw Material Preparing (2) Cutting (3) Binding (4) Sewing (5) Quality Inspection (6) Packing တို့ဖြစ်ပါသည်။

လက်ရှိပတဝန်းကျင်အခြေအနေ။

ယခုစီမံကိန်းသည်ဧရာဝတီတိုင်းဒေသကြီးကန်ကြီးထောင့်မြို့ နယ်အမှတ်၄ရပ်ကွက်၊ ကွင်းအ မှတ် (၁၈၄-ခ)(၁၈၅-စီ)ဦးပိုင်အမှတ်၁၇/၂၁၈/၁ ရှိမြေ(၆. ၇၃)ဧကမြေပေါ်တွင်တည်ရှိပါသည်။ မြောက်လတ္တီတွင်၎ ၂၇’ ၁၄” နှင့် ၊ အရှေ့လောင်ဂျီ တွင် ၉၆ ၀၅’ ၄၉” တွင်တည်ရှပါသည်။ အနီးအနားတွင်လယ်ကွင်းများသာရှိပါသည်။ မြေမျက်နှာပြင်သွင်ပြင်မှာမြေပြန့်ဖြစ်ပါသည်။

ရာသီဥတု။
ကန်ကြီးထောင့်မြို့နယ်သည်ဧရာဝတီတိုင်းအတွင်းရှိပြီးမြန်မာနိုင်ငံ၏အခြားသောဒေသများကဲ့သို့သမပိုင်းဒေသရာသီဥ မျိုးရှိပါသည်။နွေ၊မိုး၊ဆောင်းရာသီများအဖြစ်၄လစီအလှည့်ကျဖစ်ပေါ်ပါသည်။အပူချိန်အနေဖြင့် ၂၁°မှ၃၈°အတွင်းရှိ တတ်ပါသည်။

သက်မွေးဝမ်းကြောင်းမူ။
ကန်ကြီးထောင့်မြို့နယ်တွင်နေထိုင်ကြသူများ၏သက်မွေးဝမ်းကြောင်းမူသည်စုံလင်ပြီး၊အရောင်းအဝယ်နှင့်လခစား၊ဝန်ထမ်းနှင့်နေစားလုပ်သူများပါဝင်သည်သာမကပဲစစ်မှုထမ်းများ၊နိုင်ငံခြားတွင်သွားရောက်လုပ်ကိုင်ကြသူများပါဝင်ပါသည်။
ယခုစီမံကိန်းကြောင့်ဖြစ်ပေါ်နိုင်သည့်ထိခိုက်မှုများကိုယေဘူယျအားဖြင့် ၂ပိုင်းခွဲခြားနိုင်ပါသည်။

၁. စီမံကိန်းတည်ဆောက်မှုကာလဆောက်လုပ်ရေးလုပ်ငန်းစဉ်များကြောင့်ယာယီသို့ မဟုတ်အချိန်တိုအတွင်းထိခိုက်မှုများ။
၂. ရေရှည်သို့ မဟုတ်အမြဲတမ်းလုပ်ငန်းစဉ်များကြောင့်ထိခိုက်နိုင်မှုများ။

ယခုစီမံကိန်း၏အဓိကကုန်ကြမ်းဖြစ်သောပိတ်စများ၊၁၀၀%နိုင်လွန်/ပေါ်လီအက်စတာအစရှိသည့်ကုန်ကြမ်းပိတ်စများသည်ဆွေးမြေ့ပျက်စီးရန်အချိန်ကြာမြင့်ပြီးပတ်ဝန်းကျင်ညစ်ညမ်းမှုဖြစ်စေနိုင်ခြင်း၊ပုံစံဖြတ်ခြင်း၊ပိတ်စညှပ်ခြင်းလုပ်ငန်းအဆင့်များတင်ထွက်ရှိလာမည့်ဖြတ်စည်ပစ်အမှုန်အမွှားများကြောင့်လေထုနှင့်မြေထုညစ်ညမ်းခြင်း၊လုပ်ငန်းတစ်ခုလုံး၏အဆင့်တိုင်းတွင်စက်များကိုအသုံးပြုဆောင်ရွက်ရမည်ဖြစ်သဖြင့်အသံဆူညံခြင်းစသည့်ထိခိုက်နိုင်မှုများယေဘူယျခန့်မှန်းတွက်ဆနိုင်ပါသည်။

စီမံကိန်းကြောင့်အဓိကထိခိုက်နိုင်မှုများကိုအောက်ပါအတိုင်းဆန်းစစ်ထားပါသည်။

Table (1) The Summary of Impacts (Myanmar)

အမျိုးအစား	နယ်ပယ်သတ်မှတ်ချက်	Scoping Results		Assessment Result		Reason for Assessment
		Before/During Construction (BC/DC)	Operation Stage(OS)	Before/During Construction (BC/DC)	Operation Stage(OS)	
ည်စ်ညမ်းမှု	လေအရည်အသွေး	-	B-	-	B-	OS: စက်လည်ပတ်မှုလုပ်ငန်းစဉ်မှလေထုနှင့်ဖုန်မည်စ်ညမ်းစေနိုင်ပါ။ လျှပ်စစ်မီးပြတ်တောက်စဉ်အင်ဂျင်စက်လည်ပတ်ခြင်းမှသာလေထုညစ်ညမ်းမှုကိုအနဲငယ်ဖြစ်စေနိုင်ပြီးကြီးမားသောဖုန်မဖြစ်နိုင်ပါ။ ထင်းလောင်စာသုံးဘွိုင်လာမှလေထုညစ်ညမ်းစေနိုင်ပါသည်။
	ရေအရည်အသွေး	-	D	-	D	OS: ရေနှင့်ဆိုင်သောထိခိုက်မှုမရှိနိုင်ပါ။
	စွန့်ပစ်အမှိုက်	-	D	-	D	OS: ဖြတ်ညှပ်စနှင့်အမှိုက်များကိုစည်းကမ်းမဲ့စွန့်. ပစ်လျှင်ပတ်ဝန်းကျင်ကိုထိခိုက်နိုင်ပြီး 3R စနစ်ကိုအသုံးပြုမည်ဆိုပါကအညစ်အကြေးများမထွက်ရှိပါ။
	စွန့်ပစ်အရည်	B-	B-	B-	B-	OS: ချွေးပြီးအထည်များကိုရေလျော်ဖွတ်သည့်လုပ်ငန်းမှထွက်ရှိလာသည့်စွန့်ပစ်အရည်များကိုစည်းကမ်းမဲ့စွန့်. ပစ်လျှင်ပတ်ဝန်းကျင်ကိုထိခိုက်နိုင်ပြီး Waste Water Treatment စနစ်ကိုအသုံးပြုမည်ဆိုပါကပတ်ဝန်းကျင်ထိခိုက်မှုမရှိနိုင်ပါ။
	Soil Contamination	-	D	-	D	OS: ထိခိုက်နိုင်မှုမရှိပါ။
	ဆူညံသံနှင့်တုန်ခါမှု	-	B-	-	B-	OS: ထခိုက်နိုင်မှုမရှိပါ။မီးပျက်သည့်အခါမီးစက်ကြောင့်ဆူညံမှုအနဲငယ်ရှိနိုင် သော်လည်းအသံထိန်းများတပ်ဆင်ထားမှုကြောင့်ထိခိုက်မှုကိုရှောင်လျှားနိုင်ပါသည်။
	မြေနိမ့်ကျဆင်းမှု	-	B-	-	B-	OS: မြေနိမ့်. ကျခြင်းမဖြစ်နိုင်ပါ။
	Offensive Odor	-	D	-	D	OS: စီမံကိန်းပုံမှန်လုပ်ငန်းများမှအနံ့. ထွက်ပေါ်ခြင်းမဖြစ်ပေါ်နိုင်ပါ။
	အောက်ခြေအနယ်ထိုင်မှု	-	D	-	D	OS: ပုံမှန်စက်လည်ပတ်မှုများမှစွန့်. ပစ်အရည်များမရှိပါ။
သဘာဝပတ်ဝန်းကျင်	ကန့်သတ်ဧရိယာ	-	D	-	D	စီမံကိန်းဧရိယာအတွင်းနှင့်အနီးတွင်ကာကွယ်ထိန်းသိမ်းထားသောဥယျာဉ်နှင့်သစ်တောကြိုးဝိုင်းများမရှိပါ။
	သဘာဝအပင်၊တိရိစ္ဆာန်များနှင့်ဂေဟစနစ်။	-	C	-	C	စီမံကိန်းနေရာသည်မူလကပင်စက်မှုဇုန်မြေဖြစ်သောကြောင့်အဆိုပါဒေသရှိမိုခိုနေထိုင်သည့်တိရိစ္ဆာန်နှင့်အပင်များဆိုင်ရာမှတ်တမ်းများမရှိပါ။ စီမံကိန်းကြောင့်အနီးပတ်ဝန်းကျင်ဂေဟစနစ်ကိုထိခိုက်နိုင်ရန်မရှိပါ။
	ဇလဗေဒ	-	D	-	D	OS: ဖြစ်ပေါ်လာသည့်မြေပေါ်တွင်တည်ဆောက်မည့်စီမံကိန်းများကမြေအောက်ရေထုတ်ယူသုံးစွဲခြင်းမရှိပါကထိခိုက်ရန်မရှိပါ။
	မြေမျက်နှာပြင်နှင့်ဘူမိဗေဒ	-	D	-	D	OS: စီမံကိန်းဖေါ်ဆောင်သည့်မြေယာနှင့်အနီးပတ်ဝန်းကျင်သည်မြေပြန့်. သာဖြစ်သောကြောင့်မူလမြေမျက်နှာပြင်နှင့်ဘူမိဗေဒဆိင်ရာကိုထိခိုက်နိုင်မှုမရှိပါ။
လူမှုပတ်ဝန်းကျင်	In voluntary Resettlement	-	D	-	D	OS: စီမံကိန်းကြောင့်မူလနေထိုင်သူများအတွက်ပြောင်းရွှေ့ နေရာချထားမှုများမရှိပါ။မူလကပင်စက်မှုဇုန်မြေဖြစ်သည့်အပြင်နေထိုင်သူများမရှိပါ။စီမံကိန်းအနီးတွင်နေထိုင်သူများကန့်ကွက်မှုများမရှိပါ။
	Misdistribution of benefit and damage	-	C	-	C	
	Local conflit of interests	-	D	-	D	
	Gender	-	D	-	D	
	Children's Right	-	D	-	D	
	Ethnic minorities and indigenous peoples	-	D	-	D	
	ဆင်းရဲမှု	-	A+	-	A+	စီမံကိန်းအနီးနေထိုင်သူများအတွက်စီးပွါးရေးနှင့်အလုပ်အကိုင်များပိုမိုဖြစ်ထွန်းလာမှုကြောင့်ဆင်းရဲမှုလျော့နဲပပျောက်သွားနိုင်ပါသည်။
	သက်မွေးဝမ်းကြောင်းမှလုပ်ငန်းများ။	-	A+	-	A+	OS: ဒေသစီးပွါးရေးနှင့်အလုပ်အကိုင်များပိုမိုတိုးတက်ဖွံ့ဖြိုးလာနိုင်သဖြင့်ဒေသခံများအတွက်သိသာသောကောင်းကျိုးများသက်ရောက်နိုင်မည်ဖြစ်ပါသည်။
	မူလရှိပြီးလူမှုအဆောက်အဦများနှင့်ဝန်ဆောင်မှု	-	B+	-	B+	OS: စီမံကိန်း CSR လုပ်ငန်းများကြောင့်မူလမြို့ပြအခြေခံများအပေါ်သို့ ထိခိုက်မှုမရှိသည့်အပြင်ပိုမိုကောင်းမွန်စေလာနိုင်ပါသည်။
	ရေအသုံးချမှု	-	D	-	D	OS: စီမံကိန်းမစတင်မီမှစီမံကိန်းပြီးဆုံး၍ပုံမှန်လည်ပတ်သည်အထိ

						မူလကရေပေးရေးစနစ်အပေါ် လုံးဝထိခိုက်နိုင်မှုမရှိပါ။
	ယဉ်ကျေးမှုဆိုင်ရာအဆောက်အဦး	-	C	-	B+	OS: စီမံကိန်းတည်ဆောက်သည့်နေရာတွင်မူလကပင်စက်မှုဇုန်ဖြစ်သောကြောင့်ယဉ်ကျေးမှုဆိုင်ရာအဆောက်အဦးများမရှိသည့်အပြင်၊ စီမံကိန်း၏အနီးအနားတွင်လည်းယဉ်ကျေးမှုဆိုင်ရာအဆောက်အဦးများမရှိပါ။ တိုးတက်လာသည့်နေထိုင်သူများနှင့်စီမံကိန်းမှလျာထားချက်ဖြစ်သောလူမှုရေးရဲပုံငွေများကြောင့်ပင်ကောင်းကျိုးသက်ရောက်မှုအချို့ ရှိလာနိုင်ပါသည်။
	Landscape	-	C	-	B+	OS: စီမံကိန်းတည်ဆောက်သည့်မူလနေရာသည်မြေရိုင်းပင်ဖြစ်သော်လည်းစနစ်တကျမြေယာဖော်ထုတမှုကြောင့်မြေပြင်အနေအထားပိုမိုကောင်းမွန်လာနိုင်ပါသည်။ Management on Greening အစီအစဉ်အရအပင်များစိုက်ပျိုးလာသည့်အခါပိုမိုလှပသောမြေအနေအထားဖြစ်လာမည်ဖြစ်ပါသည်။
	AIDS/HIV ကဲ့သို့ကူးစက်ရောဂါများရနိုင်ခြေ	-	B-	-	B-	OS: ပတ်ဝန်းကျင်နှင့်မြေအနေအထားများပိုမိုကောင်းမွန်လာနိုင်သော်လည်းတိုးတက်လာမည့်လူဦးရေကြောင့်ကူးစက်ရောဂါများပိုမိုလာနိုင်သည့်အလားအလာရှိသဖြင့်အထူးဂရုစိုက်ရမည်ဖြစ်ပါသည်။
	လုပ်ခွင်အခြေအနေ (လုပ်ငန်းခွင်လုံခြုံစိတ်ချရမှုအပါအဝင်)	-	B-	-	B-	BC/DC: OS: စီမံကိန်းအဆင့်ဆင့်တိုင်းအတွက်လုပ်ငန်းခွင်ထိခိုက်မဘေးရှင်းစေအစဉ်ဂရုစိုက်ရမည်ဖြစ်ပါသည်။
အခြား	မတော်တဆထိခိုက်မှု	-	B-	-	B-	BC/DC: OS: စီမံကိန်းမည်သည့်အဆင့်ပြီးဆုံးစေကာမူတိုးတက်လာသောမော် တော်ယာဉ်များကြောင့်ယာဉ်ထိခိုက်မှုအန္တရာယ်ကိုအထူးအလေးထားရမည်ဖြစ်ပါသည်။
	ကမ္ဘာ့ပူနွေးမှု	-	B-	-	B-	OS: ပုံမှန်အခိုနိတွင်အသးပြုမည့်မော်တော်ယာဉ်များသွားလာမှုစက်များလည်ပတ်မှုများကြောင့်ဖန်လုံအိမ်ဓာတ်ငွေ့ များထုတ်လွတ်မှုတိုးပွါးလာနိုင်ပါသည်။

အထက်ဖော်ပြပါထိခိုက်နိုင်ခြေများကိုမဖြစ်ပေါ် စေရန်စီမံကိန်းအကောင်အထည်ဖော် လုပ်ဆောင်သွားမည့်အပြင်၊လုပ်ငန်းစဉ်အဆင့်တိုင်းမှထွက်ရှိလာမည့်ကုန်ကြမ်းဖြတ်ညှပ်စများကိုစနစ်ကျစေရန်အတွက်သိမ်းဆည်းခြင်း၊ပြန်လည်အသုံးချခြင်းတို့ပါဝင်သည့် 3R စနစ်ကိုကျင့်သုံးနေသည့်အတွက်ပတ်ဝန်းကျင်ထိခိုက်မှုကိုလျော့ချနိုင်မည့်အစီအစဉ်များပါရှိပြီး၊လျော်ဖွတ်ခြင်းလုပ်ငန်းမှထွက်ရှိသည့်စွန့်ပစ်အရည်များကိုလည်းပတ်ဝန်းကျင်အပေါ် ထိခိုက်မှုမရှိစေရန်စီမံလုပ်ဆောင်လျက်ရှိကြောင်းတွေ့ရှိရပါသည်။

အဆိုပါစီမံကိန်းပြီးစီး၍ပုံမှန်လည်ပတ်သည့်အခါတွင်သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ၊လူမှုစီးပွါးရေးဆိုင်ရာများအပေါ် ထိခိုက်နိုင်သည့်

၁. ဖုန်များထွက်ရှိမှု
၂. အသံပိုင်းဆိုင်ရာ နှင့် တုန်ခါမှု
၃. စွန့်ပစ်ပစ္စည်းနှင့် ရေဆိုးရေညစ်များဆိုင်ရာ
၄. အန္တီးအနားတွင်ရှင်သန်သွားလာနေထိုင်သည့် သဘာဝတိရိစ္ဆာန်များအားထိခိုက်ခြင်း။
၅. လုပ်သားများအတွက်အလုပ်အကိုင်အခွင့်အလမ်းများ

စသည်တို့ ကိုအဓိကထား၍ဆန်းစစ်မှုများကိုလုပ်ကိုင်ခဲ့ပြီးလျော့ချနိုင်သည့်အစီအစဉ်များကိုစီစဉ်ထားကြောင်းတွေ့ရှိခဲ့ပါသည်။

၁. ဖုန်များအပေါ် စီမံထားရမှု။

ယခုစီမံကိန်းမစတင်မီကစက်မှုဇုန်မြေနေရာဖြစ်ခဲ့သော်လည်းမော်တော်ယာဉ်များဝင်ထွက်မှုကြောင့်မည်မျှဖုံထခဲ့သည်၊ မည်မျှလေထုညစ်ညမ်းခဲ့သည်ကိုတိုင်းတာမှတ်သားမှုမရှိသဖြင့် Environmental Base Line အဖြစ်ကိန်းဂဏာန်းများမရရှိနိုင်ပါ။ သို့ ရာတွင်အောက်ဖော်ပြပါအကြောင်းအချက်များဖြစ်သည့်

- စီမံကိန်းတည်ဆောက်ရေးကာလတွင်ပို့ ဆောင်ရေးမော်တော်ယာဉ်များဝင်ထွက်သွားလာခြင်း၊
- တည်ဆောက်ရေးအတွက်အသုံးပြုသည့် စက်ယန္တရားများစက်များဖြင့်အုတ်မြစ်ချလုပ်ငန်းများလုပ်ဆောင်ခြင်း။
- မြေမှုန့် များကိုလေတိုက်ခတ်ခြင်း၊

- တူးဖေါ်သည့်မြေကြီးများနှင့်ကုန်တင်ယာဉ်များပေါ်သ့ တင်ချမှုများပြုလုပ်ခြင်း၊သယ်ယူပို့ ဆောင်ခြင်း။

စသည်တို့ ကြောင့်ပတ်ဝန်းကျင်ဒေသများအပေါ်ဖုန်မှုံများဖြစ်ပေါ်စေနိုင်ပါသည်။

ယင်းအတွက်သက်သာလျှော့နည်းစေရန်မော်တော်ယာဉ်များအရှိန်ထိန်းမောင်းနှင်ခြင်း။ကုန်ကြမ်းများ တင်/ချ ပြုလုပ်သည့်နေရာတွင်အကာအရံပြုလုပ်ပေးထားခြင်းတို့ ဖြင့်ကာကွယ်လျော့နည်းစေနိုင်ပါသည်။

စီမံကိန်းတည်ဆောက်စဉ်စက်ပစ္စည်းများတပ်ဆင်ခြင်း၊စက်စမ်းသပ်ခြင်း၊ရွှေ့ပြောင်းခြင်း၊စသည်တို့ ကြောင့်ဆူညံသံနှင့်တုန်ခါသံများဖြစ်ပေါ်မည်ဖြစ်ရာ၊အဆိုးဆုံးမှာ Power Generation, Pile Driving, စသည်တို့ မှထွက်ရှိသောဆူညံသံသည်အ၊ကီးမားဆုံးပြသာနာဖြစ်ခြင်းကြောင့်ဆူညံသံလျှော့နည်းစေသောနည်းများကိုအသုံးပြုခြင်း၊ အလုပ်ချိန်နှင့်လမ်းကြောင်းကန့် သတ်ခြင်း၊စီမံကိန်းပတ်လည်တွင်ဆူညံသံကိုခံနိုင်သောသံအကာအကွယ်များအသုံးပြုကာယံထားခြင်းစသည်တို့.ဖြင့်ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။

စီမံကိန်းတည်ဆောက်စဉ်နှင့်တည်ဆောက်ပြီးပုံမှန်လည်ပတ်သည့်ကာလတို့ တွင်ရေဆေးခြင်း(လျော်ဖွတ်ခြင်းလုပ်ငန်း)၊သန့် စင်ခန်းများသုံးစွဲခြင်း၊ မီးဖိုဆောင်စသည်တို့ တွင်အသုံးပြုသည့်ရေပမာဏအားစနစ်တကျထိန်းသိမ်းဆောင်ရွက်ခြင်းဖြင့်ရေကြောင့်ဖြစ်သောညစ်ညမ်းမှုအားကာကွယ်ဆောင်ရွက်သွားရာရောက်မည်ဖြစ်ပါသည်။

ယခုအခါအဆိုပါလုပ်ငန်းစီမံကိန်းအတွက်စက်ရုံမှာတည်ဆောက်ပြီး၊ဖြစ်ပြီး၊စီမံကိန်းအဆိုပြုသူမှအဆိုပါတည်ဆောက်ပြီးစက်ရုံကိုငှားရမ်းလုပ်ကိုင်ခြင်းဖြစ်ပါသည်။

လုပ်ငန်းများအမှန်တကယ်လည်ပတ်သည့်အခါတွင်ပုံမှန်စက်လည်ပတ်ခြင်းသာမကဘဲဝန်ထမ်းများနေစဉ်ပုံမှန်လှုပ်ရှားမှုများအရလေထု၊အမှိုက်၊စွန့် ပစ်ရေဆိုးနှင့်ညစ်ညမ်းမှုများထွက်ရှိမည်ကိုငှင်း၊မီးလောင်မှုမဖြစ်စေရန်ငှင်းအပြည်ပြည်ဆိုင်ရာစံချိန်စံညွှန်းများနှင့်ကိုက်ညီသည့်စံနစ်များအတိုင်းပတ်ဝန်းကျင်ထိခိုက်မှုများမဖြစ်စေရန်လုပ်ဆောင်နေသည်ကိုတွေ့ရပါသည်။

<u>Noise Management Plan</u>

၂. အသံပိုင်းဆိုင်ရာနှင့် တုန်ခါမှုများအပေါ်စီမံထားရှိမှု။

စီမံကိန်းတည်ဆောက်ရေးကာလတွင်တည်ဆောက်ရေးအတွက်ရောက်ရှိလာသည့်အလုပ်သမားများနှင့်စက်ယန္တရားများကြောင့်မူလထက်ဒေသနှင့်ပတ်ဝန်းကျင်အပေါ်အသံဆူညံမှုများတိုးပွါးလာနိုင်ပါသည်။ ယင်းအတွက်သက်ဆိုင်ရာတည်ဆောက်ရေးအဖွဲ့များမှလည်းတပ်နိုင်သမျှအသံဆူညံမှုမရှိစေရန်ထိန်းသိမ်းလုပ်ကိုင်သည်ကိုတွေ့ ရှိရပါသည်။ တည်ဆောက်မှုများကိုနေ့ အချိန်တွင်သာပြုလုပ်ပြီးညစနာရီထက်နောက်ကျစွာလုပ်ကိုင်ခြင်းမှရှောင်ရှားရမည်ဖြစ်ပါသည်။တည်ဆောက်မှုများပြီးစီးသည့်အခါယခုစက်ရုံ၏ပုံမှန်လုပငန်းစဉ်များလည်ပတ်ရာတွင်ထွက်ရှိမည့်အသံမှာစက်ချုပ်စက်များ၏အသံနှင့်လေအေးပေးစက်၏ထွက်ရှိမည်အသံတို့ မှာသတ်မှတ်စံ၏လက်ခံနိုင်သောအဆင့်တွင်သာရှိပြီးအဆိုပါအသံမှအပအခြားသောဆူညံသည့်အသံများနှင့်တုန်ခါမှုများထွက်လာမည်မဟုတပါ။
စီမံကိန်းတခုလုံးအတွက်လိုအပ်သည့်လျှပ်စစ်ဓါတ်အားကိုနိုင်ငံတော်၏လျှပ်စစ်ဓါတ်အားပေးရေးကွန်ယက်မရယူမည်ဖြစ်သော်လည်းလျှပ်စစ်ဓါတ်အားပြတ်လပ်သည့်အခါကိုယ်ပိုင်မီးစက်ဖြင့်လည်ပတ်ရန်စီစဉ်ထားသည်ကိုတွေ့ ရှိရပါသည်။ အဆိုပါမီးစက်ကြီးများ၏လည်ပတ်ချိန်တွင်ထွက်ရှိလာမည့်စက်လည်ပတ်မှုအသံသည်ကျယ်လောင်နိုင်သကဲ့သို့ မရပ်မနားထွက်ပေါ်လာမည့်အသံဆူညံချိန်သည်ပတ်ဝန်းကျင်အတွက်နားမခနိုင်စရာထိခိုက်နိုင်မှုတစ်ခုအဖြစ်လေ့လာဆန်းစစ်မှုအရသိရှိရပါသည်။(စက်ရုံလုပ်ငန်းကိုနေ့အချိန်သာလုပ်ကိုင်ပြီးညပိုင်းလုပ်ကိုင်မှုမရှိပါ။)

၁. စွန် ပစ်ပစ္စည်းနှင့်ရေဆိုးရေညစ်များဆိုင်ရာလေ့လာဆန်းစစ်မှုနှင့်စီမံထားရှိမှု။

ပုံမှန်လည်ပတ်မှုလမ်းစဉ်အရစွန့်. ပစ်ပစ္စည်းနှင့်ရေဆိုးရေညစ်များသည်အောက်ပါအတိုင်းထွက်ရှိနိုင်ကြောင်း Process Flow ဆိုင်ရာမှတ်တမ်းများနှင့်ကွင်းဆင်းစစ်ဆေးမှုအရသိရှိနိုင်ပါသည်။

(က) ရေချိုးခန်း၊ရေအိမ်များမှထွက်ရှိသောအညစ်အကြေးများ၊

(ခ) မီးဖိုဆောင်များမှထွက်ရှိသောအညစ်အကြေးများ၊

(ဂ) အဝတ်လျှော်စက်များမှထွက်ရှိသောအညစ်အကြေးများ၊

Project အမှန်တကယ်လည်ပတ်သည့်အခါတွင်လုပ်ငန်းစဉ်၏သဘောတရားအရ စွန့်. ပစ်ရေဆိုးများလျော့ဖွတ်သည့်လုပ်ငန်းအဆင့်မှထွက်ရှိပါသည်။အဆိုပါစွန့်ပစ်အရည်နှင့်ပုံမှန်ရေချိုးခန်း၊မီးဖို၊ရေအိမ်များမှထွက်ရှိသည့်အညစ်အကြေးများကိုလည်းစံချိန်စံညွှန်းများနှင့်ကိုက်ညီသည်ရေဆိုးများသန့်. စင်သည့်စံနစ်(Septic Tank) များပါရှိသည့်အပြင်လိုအပ်လျှင်မြို့နယ်စည်ပင်သာယာအဖွဲ့သို့ဆက်သွယ်စွန့်ပစ်သောစနစ်ကိုအသုံးပြုသောကြောင့်ပတ်ဝန်းကျင်ထိခိုက်မှုမရှိစေရန်ဆောင်ရွက်လျက်ရှိသည်ကိုတွေ့. ရပါသည်။ ထို. အပြင်အသံနှင့် တုန်ခါမှုများကြောင့်ထိခိုက်ရန်လည်းမရှိကြောင်းတွေ့. ရှိရပါသည်။

(မှတ်ချက်)။ ။စီမံကိန်းဒေသသို့ကွင်းဆင်းတိုင်းတာစစ်ဆေးရာတွင်ယခုစီမံကိန်းသည်ဆောက်လုပ်ရေးလုပ်ငန်းများပြီးဆုံးပြီးပုံမှန်လည်ပတ်လုပ်ကိုင်နေသည်ကိုတွေ့ရှိရပါသည်။(စက်ရုံလုပ်ငန်းကိုနေ့အချိန်သာလုပ်ကိုင်ပြီးညပိုင်းလုပ်ကိုင်မှုမရှိပါ။)

မူဝါဒနှင့်ဥပဒေမူဘောင်များ။

စဉ်	ဥပဒေများ	Law,Rule, regulation and Act.
၁	မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုဥပဒေ ၂၀၁၆	Myanmar Investment Law 2016
၂	မြေလွတ်၊မြေလတ်၊မြေရိုင်းများစီမံခန့်ခွဲရေးဥပဒေ ၂၀၁၂	Free Land, Vacant Land, Margin Land Management Law2012
၃	အလုပ်သမာအဖွဲ့. အစည်းဥပဒေ ၂၀၁၁	Labor Organization Law 2011
၄	အလုပ်သမားအငြင်းပွါးမှုဖြေရှင်းရေးဥပဒေ ၂၀၁၂	Settlement of Labour Disputes Law 2012
၅	လူမှုဖူလုံရေးဥပဒေ ၂၀၁၂	Social Security Law 2012
၆	အနဲဆုံးလုပ်ခကြေးငွေဥပဒေ ၂၀၁၃	Minimum Wages Law 2013
၇	အခကြေးငွေပေးချေရေးဥပဒေ ၂၀၁၆	Payment of Wages Law 2016
၈	ခွင့်နှင့်အလုပ်ပိတ်ရက်များဥပဒေ ၁၉၅၁	The Leaves and Holidays Act 1951
၉	စက်ရုံဥပဒေ ၁၉၅၁	Factory Act 1951
၁၀	အလုပ်သမားလျော်ကြေးအက်ဥပဒေ ၁၉၅၁	Workmen Compensation Act 1951
၁၁	ရေနံနှင့်ရေနံထွက်ပစ္စည်းဆိုင်ရာဥပဒေ ၂၀၁၇	Petroleum and Product of Petroleum Law 2017
၁၂	ရေနံနည်းဥပဒေများ၁၉၃၇	Petroleum Rules 1937
၁၃	မော်တော်ယာဉ်ဥပဒေ ၂၀၁၅	The Motor Vehicle Law 2015
၁၄	မော်တော်ယာဉ်နည်းဥပဒေ ၁၉၈၇	The Motor Vehicle Rule 1987
၁၅	ပြည်သူကျန်းမာရေးဥပဒေ၁၉၇၂	Public Health Law 1972
၁၆	ကူးစက်ရောဂါများကာကွယ်နှိမ်နင်းရေးဥပဒေ ၁၉၉၅	Prevention and Control of Communicable Diese Law 1995
၁၇	မြန်မာ့အာမခံလုပ်ငန်းဥပဒေ ၁၉၉၃	The Myanma Insurance Law 1993
၁၈	မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ ဥပဒေ ၂၀၁၅	Myanmar Fire Force Law 2015
၁၉	ပို့ကုန်သွင်းကုန်ဥပဒေ၂၀၁၃	The Export and Import Law 2013
၂၀	အလုပ်အကိုင်နှင့်ကျွမ်းကျင်မှုဖွံ့ဖြိုးတိုးတက်ရေးဥပဒေ ၂၀၁၃	Employment and Skill Development Law 2013
၂၁	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ ၂၀၁၂	The Environmental Conservation Law 2012
၂၂	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနည်းဥပဒေ ၂၀၁၄	The Environmantal Conservation Rules 2014
၂၃	ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း ၂၀၁၅	Environmantal Impact Assessment Procedure 2015
၂၄	အမျိုးသားပတ်ဝန်းကျင်အရည်အသွေး(ထုတ်လွှတ်မှု)လမ်းညွှန်ချက်များ၂၀၁၅	Emission Quality Standards Guideline 2015
၂၅	တိုင်းရင်းသားလူမျိုးများ၏အခွင့်အရေးကာကွယ်စောင့်ရှောက်သည့်ဥပဒေ ၂၀၁၅	The Rights of National Races Law 2015
၂၆	ဧရာဝတီတိုင်းလွှတ်တော်မှပြဋ္ဌာန်းသည့်ဥပဒေများအနက်ဆက်စပ်သည့်ဥပဒေများ၊ နည်းဥပဒေများ။	All related Laws and Rules enacted by Ayeyarwaddy Division Region Hluttaw

ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့ချရေးနှင့်စောင့်ကြပ်ကြည့်ရှုနိုင်စေရန်အစီအစဉ်နှင့်အဖွဲ့အစည်းကိုလည်းဖွဲ့စည်းလုပ်ဆောင်ထားပါသည်။

ပတ်ဝန်းကျင်စိမ်းလန်းစိုပြေစေရေး၊အရေးပေါ် နှင့်ကယ်ဆယ်ရေးတို့ဆောက်ရွက်သွားနိုင်စေရန်ဖွဲ့စည်းမှုများနှင့်လုပ်ဆောင်ရန်အစီအစဉ်များကိုရေးဆွဲတင်ပြထားပါသည်။

Table (2) Summary of Mitigation

အမျိုးအစား	အချက်အလက်	Mitigation and Consideration Measures in Operation Phase	Responsibility
ညစ်ညမ်းမှု	လေအရည်အသွေး	- စက်ရုံတွင်းသန့်ရှင်းရေးအစဉ်ပြုလုပ်ရန်။ -စက်ရုံတွင်လူနေထိုင်ပါကချက်ပြုပ်မှုများကြောင့်လေထုညစ်ညမ်းမှုကိုမဖြစ်စေရန်။	Workers
	ရေအရည်အသွေး	-Septic tank တပ်ဆင်ပြီးထိခိုက်မှုကိုလျော့ချနိုင်ပါသည်။	Developer
	စွန့်ပစ်အမှိုက်	-3Rs.စနစ်ကိုလုပ်သားများအားလိုက်နာစေပြီးနေစဉ်သုံး၊စက်ရုံသုံးများလျော့ချနိုင်သည်။	Developer
	စွန့်ပစ်အရည်	- ရေဆိုးသန့်စဉ်စနစ်တပ်ဆင်လုပ်ကိုင်လျက်ထိခိုက်မှုများလျော့ချနိုင်သည်။	Developer
	Soil Contamination	- စက်ဆီ၊ချောဆီများမြေပေါ် သို့ဖိတ်စဉ်မှုများမဖြစ်ပေါ်စေရန်	All
	ဆူညံသံနှင့်တုန်ခါမှု	မီးပျက်သည့်အခါမီးစက်လည်ရန်အတွက်ကြားခံနေရာ Buffer zone ထားရှိရန်။ မီးစက်တွင်အသံထိန်းကိရိယာတပ်ဆင်ထားပါသည်။	Developer
	မြေနိမ့်ကျဆင်းမှု	- မူလမြေအောက်ရေ၏အနေအထားကိုမထိခိုက်စေရန်အတွက်အဝီစိတွင်းကိုထိမ်းသိမ်းရန်အတွက်သုံးရေချွေတာသုံးစွဲခြင်း။	Developer
	Offensive Odor	- စက်ရုံတွင်နေထိုင်သူများ၏အနှောင့်အယှက်ပြုအနံ့များမဖြစ်ပေါ်စေရန်စည်းကမ်းတင်းကြပ်ထားရမည်။	Tenants
	အောက်ခြေအနယ်ထိုင်မှု	- စက်ရုံမှထွက်ရှိသောအညစ်အကြေးများသည်အမျိုးသားစံချိန်မီရန်လိုအပ်ပါသည်။	
သဘာဝပတ်ဝန်းကျင်	သဘာဝအပင်၊တိရိစ္ဆာန်များနှင့်ဂေဟစနစ်။	- နေရာလွတ်များတွင်(သို့)ပန်းအိုးများဖြင့်အပင်များစိုက်ပျိုးရန်၊မျက်ခင်းများပြုလပ်ရန်။	Developer
	ဇလဗေဒ	- သင့်တော်သည့်ရေကန်ပြုလုပ်ပြီးမိုးရေစုဆောင်းပြီးအပင်ရေလောင်းခြင်းဖြင့်ရေသုံးမှုလျော့ချနိုင်သည်။	Developer
လူမှုပတ်ဝန်းကျင်	သက်မွေးဝမ်းကြောင်းမှုလုပ် ငန်းများ။	Septic tank system ကိုအသုံးပြုခြင်းဖြင့်ရေဆိုး၏အရည်အသွေးထိန်းသိမ်းနိုင်ပါသည်။ Livelihood ကိုထိခိုက်နိုင်ခြင်းမရှိပါ။	Developer
	မူလရှိပြီးလူမှုအဆောက်အဦများနှင့်ဝန်ဆောင်မှု	မူလရှိပြီးလမ်းများမထိခိုက်စေရန်နှင့်ပြုပြင်ထိန်းသိမ်းမှုများပြုလုပ်ရန်လိုပါသည်။	Developer
	ရေအသုံးချမှု	ရေအသုံးချမှုအစဉ်ထိန်းသိမ်းရန်လိုအပ်သည်	Developer
	AIDS/HIV ကဲ့သို့ကူးစက်ရောဂါများရနိုင်ခြေ	- ရောဂါများကူးစက်မှုမရှိစေရန်ကာကွယ်ခြင်း၊ပညာပေးခြင်းအားဖြင့်ထိန်းချုပ်နိုင်ပါသည်	Developer
	လုပ်ခွင်အခြေအနေ (လုပ်ငန်းခွင်လုံခြုံစိတ်ချရမှုအပါအဝင်)	- လုပ်သားများလုပ်ခွင်ကျန်းမာရေး Occupational Health and Safety (OHS) ကိုအစဉ်လုပ်ဆောင်ပေးခြင်း	Developer
အခြား	မတော်တဆထိခိုက်မှု	- စီမံကိန်းအတွင်းအပြင်တို၌မတော်တဆထိခိုက်မှုများမဖြစ်စေရန်စီစဉ်ထားရမည်။	Developer
	ကမ္ဘာ့ပူနွေးမှု	- စီမံကိန်းကြောင့် GHGs emission လျော့ချရန်	Developer

အချိန်အခါအားလျော်စွာနှင့်အရေးပေါ် အစီရင်ခံစာများပေးပို့နိုင်ရန်လည်းသက်ဆိုင်ရာအဖွဲ့အစည်းများနှင့်အထောက်အကူပြုအဖွဲ့များသို့ညွှန်ကြားထားချက်များယခုအစီရင်ခံစာတွင်ပါရှိပါသည်။ အသံ၊ရေစွန့်ပစ်အရည်စသည်တို့ကို မည်သည့်အချက်များ၊မည်သို့တိုင်းတာရမည်စသည်တို့ကိုလည်းအောက်ပါအတိုင်းဖော်ပြထားပါသည်။

အသံ

စဉ်	ညစ်ညမ်းသည့်နေရာ	အကြောင်းရင်း	ထိခိုက်မှု	ပါရာမီတာ	အညွှန်း	နည်းစနစ်	လူ	ကာလ
1	Surrounding of Project Area	Traffic(Car Parking, loading/Unloading)	Noice	Sound Level	dB	Sound Level Meter		Daily

Water & Waste Water

စဉ်	ညစ်ညမ်းသည့်နေရာ	အကြောင်းရင်း	ထိခိုက်မှု	ပါရာမီတာ	အညွှန်း	နည်းစနစ်	လူ	ကာလ
1	Surrounding	Washing Process Drain/Car Wash,etc.	Waste Water	Flow rate	BOD, COD	Lab Analysis	Person In charge	Daily Weekly Monthly

Air

စဉ်	ညစ်ညမ်းသည့်နေရာ	အကြောင်းရင်း	ထိခိုက်မှု	ပါရာမီတာ	အညွှန်း	နည်းစနစ်	လူ	ကာလ
1	Inside Factory and/or Surrounding	Emission, Exhaust(Machines ,Vehicle,etc.)	Air	Exhaust Air (Temp/Pressure)	(Temp;humidity PM_{10},NO,SO_2,CO) Ordor level	Lab Analysis	Person In charge	Daily, Weekly, Monthly

Solid Waste

စဉ်	ညစ်ညမ်းသည့်နေရာ	အကြောင်းရင်း	ထိခိုက်မှု	ပါရာမီတာ	အညွှန်း	နည်းစနစ်	လူ	ကာလ
1	Surrounding	Tree leaves	Solid Waste	Volume/Weight	Volume	Visual, Weight Measurement	Person In charge	Daily, Weekly, Monthly

The data to be collected, locations, periods and the data collectors all should be managed pre construction, during construction and normal operation period respectively.

(Remarks, It could be omitted the pre-construction and during construction stage as the project is in the operation stage.)

Table (13) **Monitoring Plan (Operation Phase)**

Category	**Item**	**Location** (In factory and surrounding)	**Frequency**	**Responsible Organization**
Common	Monitoring of mitigation measures	Project Site (In factory and surrounding)	Quaterly (after 3 year of operation)	SPC
Air Quality	SO_2,NO_2,CO,TSP,PM_{10}	Construction Site (In factory and surrounding)	One week in dry and wet season	SPC
Water & Waste Water Quality	pH, SS, DO, BOD, COD, oil & grease, chromium	Construction Site(In factory and surrounding)	Once a year	SPC
Waste	Amount of solid waste Management of solid waste of construction	Each tenant (In factory and surrounding)	Once/3month	Tenants
Soil Contamination	Status of control of solid and liquid waste which causes soil contamination	Each tenant (In factory and surrounding)	Once a year	Tenants
Noise and Vibration	Noise & Vibration level	Each tenant (In factory and surrounding)	Once (peak period)	SPC
Ground Subsidence	Ground elevation	Preservation site	Once a year	SPC
Offensive Odor	Status of offensive odor control by tenants	Each tenant (In factory and surrounding)	Twice per year	Tenants
Bottom Sediment	Combine with water quality	Preservation site	Once a year	SPC
Hydrology	Consumption of ground water amount	Preservation site	Once a year	SPC
Water Usage Hydrological Situation	Combine with ground subsidence monitoring	Preservation site (In factory and surrounding)	Once a year	SPC
Risk for infectious disease such as AIDS/HIV	Status of measures of infection disease	Each tenant/Worker	Once/month	SPC/Tenants
Working conditions (including occupational safety)	Working condition with safety and health	Work site	Once /month	SPC
Accident	Existence of accident	Work Site	As occasion arises	Tenants

လူမှုစီးပွါးရေးအပေါ် သက်ရောက်မှုများနှင့်လျော့နည်းစေရန်ဆောင်ရွက်မည့်လုပ်ငန်းများ။
သဘာဝပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာမည်သည့်ကိစ္စမဆိုသက်ဆိုင်ရာမြို့နယ်၊ရပ်ကွက်အုပ်ချုပ်ရေးမှူးများမှသော်၄င်း စီမံကိန်းရုံးသို့တိုက်ရိုက်သော်၄င်းဆက်သွယ်အကြံပြုဆွေးနွေးနိုင်ရန်စီစဉ်ထားသကဲ့သို့ Environmental Monitoring ကဏ္ဍတွင်လည်းပါဝင်နိုင်သည်ကိုတွေ့ရပါသည်။

ထို့အပြင်လိုအပ်သလိုဝန်ထမ်းများလုပ်ကိုင်မှုစွမ်းရည်တိုးမြှင့်လာစေရန်အတွက်လည်းသယံဇာတနှင့်ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနနှင့်ဆက်သွယ်ပြီးညွှန်ကြားချက်များကိုလိုက်နာခြင်းနှင့်သင်တန်းများပေးမည်ဖြစ်ပါသည်။

ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့ချရေးနှင့်စောင့်ကြပ်ကြည့်ရှုနိုင်စေရန်အစီအစဉ်နှင့်အဖွဲ့အစည်းကိုလည်းဖွဲ့စည်းထားသကဲ့သို့ရံပုံငွေများကိုလည်းသီးခြားစွာသတ်မှတ်ထားပါသည်။

အများပြည်သူသိုသတင်းအချက်အလက်ထုတ်ဖော်ချက်။
စီမံကိန်းအပေါ် သက်ဆိုင်သူများနှင့်တွေ့ဆုံဆွေးနွေးခြင်းကိုအောက်ပါအတိုင်းပြုလုပ်ခဲ့ပါသည်။

စဉ်	နေ့စွဲ	အကြောင်းအရာ	ကျင်းပသည့်နေရာ
၁	၂၀၁၈ စက်တင်ဘာလ ၂၇ ရက်	ကန်ကြီးထောင့်မြို့ နယ်ရှိ ဌာနဆိုင်ရာများ၊အစိုးရမဟုတ်သောအဖွဲ့ အစည်းများမှ တာဝန်ရှိသူများ၊ ရပ်မိရပ်ဖလူကြီးများနှင့်စိတ်ပါဝင်စားသူများနှင့်စီမံကိန်းအပေါ် သဘောထားကောက်ယူခြင်း။	ကန်ကြီးထောင့်မြို့နယ်စည်ပင်သာယာရုံးခန်းမ
၂	၂၀၁၉ခုနှစ်မေလ ၂၃ရက	ကန်ကြီးထောင့်မြို့ နယ်ရှိ ဌာနဆိုင်ရာများ၊အစိုးရမဟုတ်သောအဖွဲ့ အစည်းများမှ တာဝန်ရှိသူများ၊ ရပ်မိရပ်ဖလူကြီးများနှင့်စိတ်ပါဝင်စားသူများနှင့်စီမံကိန်းအပေါ် သဘောထားကောက်ယူခြင်း။	ကန်ကြီးထောင့်မြို့ (ဧရာသရသခ)ခန်းမ

သက်ဆိုင်သူများနှင့်လူထုတွေ့ဆုံပွဲကို ၂၀၁၈ ခုနှစ်စက်တင်ဘာလ ၂၇ ရက်နေ့ တွင်ကန်ကြီးထောင့်မြို့နယ်မှသက်ဆိုင်ရာအစိုးရနှင့်အရပ်ဘက်အဖွဲ့အစည်းများပါဝင်သောအစည်းအဝေးကိုကန်ကြီးထောင့်မြို့နယ်စည်ပင်သာယာရေးရုံး၏ခမ်းမ၌ပြုလုပ်ရာအခန်းအနားအစီအစဉ်အရမြို့နယ်အတွင်းရေးမှူးကအဖွင့်အမှာစကားပြောကြားပေးပြီးနောက်၊ ကောင်းကျော်စေအင်ဂျင်နီယာလုပ်ငန်း ကုမ္ပဏီ၏ဥက္ကဋ္ဌမှန္နတ်ခွန်းဆက်စကားပြောကြားပြီး၊အစည်းအဝေးသို့ တက်ရောက်လာသူများအားယခုအစည်းအဝေးခေါ်ယူရသည့်အကြောင်းကိုဦးစွာသဘောပေါက်နားလည်စေရန်ရှင်းလင်းတင်ပြပါသည်။အဆိုပါတွေ့ဆုံပွဲမှသိလိုသည်များကိုစက်ရုံတာဝန်ရှိသူများကပြန်လည်ရှင်းလင်းဖြေကြားသကဲ့သို့ရေဆိုးစွန့်ထုတ်မှုအတွက်ဆောင်ရွက်နေသည်များကိုပါတင်ပြခဲ့ပါသည်။

နိဂုံးချုပ်နှင့်အကြံပြုချက်။
အချုပ်အားဖြင့်ယခုတည်ဆောက်လုပ်ကိုင်မည့် Hua Meng Myanmar Co., Ltd၏ဧရာဝတီတိုင်းသေကြီး၊ ကန်ကြီးထောင့်မြို့ နယ်၊အမှတ်၄ရပ်ကွက်၊ ကွင်းအမှတ် (၁၈၄-ခ)(၁၈၅-စီ)ဦးပိုင်အမှတ်၁၇/၂၁၈/၁ ရှိမြေ (၆. ၇၃)ဧကမြေပေါ်တွင်ရာခိုင်နှုန်းပြည့်မြန်မာနိုင်ငံသားရင်းနှီးမြှုပ်နှံမှုဖြင့် **CMP** စနစ်ဖြင့်အထည်ချုပ်ခြင်းလုပ်ငန်းစီမံကိန်းသည်ပတ်ဝန်းကျင်ကိုထိခိုက်မှုမရှိသည်သာမက၊လူမှုစီးပွါးရေးကိုပိုမိုကောင်းမွန်စေနိုင်သောစီမံကိန်းတစ်ခုဖြစ်ပါသည်။
မှတ်ချက်။ ။ယခုစက်ရုံသည်မူလကစက်ရုံမှထွက်ရှသည့်စွန့်ပစ်ရေများကိုအများပိုင်ရေနှုတ်မြောင်းမှတဆင့်စွန့်ထုတ်ခဲ့သော်လည်းယခုအခါရေဆိုးသန့်စဉ်စနစ်တည်ဆောက်ရန်စတင်လုပ်ကိုင်နေသည်ကိုတွေ့ရှိရပါသည်။
မှတ်တမ်းပုံများနှင့်ရေဆိုးများဓါတ်ခွဲခန်းအဖြေများကိုနောက်ဆက်တွဲတွင်တင်ပြထားပါသည်။
အဆိုပါရေဆိုးသန့်စဉ်စနစ်ပြီးစီးသည်အခါထပ်မံရရှိသည့်ဓါတ်ခွဲခန်းအဖြေများနှင့်တကွဆက်လက်တင်ပြအစီရင်ခံသွားမည်ဖြစ်ပါသည်။(ပူးတွဲတင်ပြထားပါသည်။စောင့်ကြပ်ကြည့်ရှုသည့်အစီရင်ခံစာတွင်ဆက်လက်တင်ပြပါမည်။)

ယခုအစီရင်ခံစာတင်ပြချိန်တွင်ရေဆိုးသန့်စင်စနစ်တည်ဆောက်ထားပြီးလည်ပတ်နေသည့်အတွက်ရေဆိုးများကိုစံချိန်စံညွှန်းအထိသန့်စင်နေနိုင်ပြီဖြစ်ပါသည်။လုပ်ဆောင်မှုအသေးစိပ်ရှင်းလင်းချက်နှင့်ဓါတ်ခွဲခန်းအဖြေများကိုနောက်ဆက်တွဲတွင်တင်ပြထားပါသည်။

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေနှင့်နည်းဥပဒေ၅၄နှင့်လုပ်ထုံးလုပ်နည်းအပိုဒ်(၂၄)တို့အရပတဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲတင်ပြရန်လိုအပ်သည့်အတွက်ရန်ကုန်မြို့ မှကောင်းကျော်စေကုမ္ပဏီများအုပ်စု၏ကောင်းကျော်စေအင်ဂျင်နီယာလုပ်ငန်းကုမ္ပဏီမှဦးဆောင်ပြီးသက်ဆိုင်ရာ Stake holders များနှင့်အတူတကွပတ်ဝန်းကျင်ဆိုင်ရာစီမံခန့် ခွဲမှုအစီအစဉ်များကိုစိစစ်လုပ်ဆောင်ခဲ့ပြီးယခုအစီရင်ခံစာဖြင့်တင်ပြအပ်ပါသည်။

Kaung Kyaw Say Engineering Co.,Ltd officed in Yangon, leaded the accessment, together with stakeholders, has submitted this environmental management program due the necessary environmtntal law, para 54 of environmental regulation and environmental impact assessment procedure para (24). This report is compiled with all environmental law, rules, regulation and national effulant guidelines.

ယခုတင်ပြသည့်ပတ်ဝန်းကျင်စီမံခန့်ခွမှုအစီအစဉ်သည်သက်ဆိုင်ရာပညာရှင်များနှင့်တတ်ကျွမ်းသူပုဂ္ဂိုလ်များတို့ မှသေချာစွာကိုယ်တိုင်ကွင်းဆင်းစစ်ဆေးကောက်ယူပြီးပြန်လည်တင်ပြခြင်းဖြစ်သောကြောင့်တိကျခိုင်မာကြောင်းတင်ပြအပ်ပါသည်။

This environmental management program report is submited after getting self assessment done by each consultants and experts in their related fields and accreditated.

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Hua Meng Myanmar Co., Ltd
အမှတ်၄ရပ်ကွက်၊
ကွင်းအမှတ် (၁၈၄-ခ)(၁၈၅-စီ)ဦးပိုင်အမှတ်၁၇/၂၁၈/၁
ကန်ကြီးထောင့်မြို့နယ်၊ဧရာဝတီတိုင်းဒေသကြီး။

ဦးထွန်းနိုင်အောင်
ဥက္ကဋ္ဌ
ကောင်းကျော်စေအင်ဂျင်နီယာလုပ်ငန်းကုမ္ပဏီလီမိတက်။
အမှတ်၃၁၊ပင်လုံရိပ်မွန်၊သဃ်နိုးကျွန်းမြို့နယ်၊ရန်ကုန်မြို့။

ယခုအစီရင်ခံစာသည်သက်ဆိုင်ရာဥပဒေများကိုတိကျစွာလိုက်နာလျက်ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကိုဆောင်ရွက်ထားပါကြောင်းတင်ပြအပ်ပါသည်။

This report, the environmental management program has carfully conducted and submitted by following the necessary law, rules and regulations.

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေနှင့်နည်းဥပဒေ၅၄နှင့်လုပ်ထုံးလုပ်နည်းအပိုဒ်(၇၆)တို့အရပတ်ဝန်းကျင်ဆိုင်ရာစီမံခဲ့ခွဲမှုအစီအစဉ်ရေးဆွဲတင်ပြရန်လိုအပ်သည့်အတွက်ရန်ကုန်မြို့မှ ကောင်းကျော်စေကုမ္ပဏီများအုပ်စု၏ကောင်းကျော်စေအင်ဂျင်နီယာလုပ်ငန်းကုမ္ပဏီမှဦးဆောင်ပြီးသက်ဆိုင်ရာ Stake holders များနှင့်အတူတကွပတ်ဝန်းကျင်ဆိုင်ရာစီမံခန့်ခွဲမှုအစီအစဉ်လုပ်ငန်းများကိုစိစစ်လုပ်ဆောင်ခဲ့ပြီးယခုအစီရင်ခံစာကိုပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ၊ နည်းဥပဒေတို့နှင့်လုပ်ထုံးလုပ်နည်းအပါအဝင်၊အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု)လမ်းညွှန်ချက်များကိုတိကျစွာလိုက်နာ၍ဤပတ်ဝန်းကျင်ဆိုင်ရာစီမံခန့်ခွဲမှုအစီအစဉ်အစီရင်ခံစာတိုကိုရေးဆွဲတင်ပြထားပါကြောင်းတင်ပြအပ်ပါသည်။

Kaung Kyaw Say Engineering Co.,Ltd officed in Yangon, leaded the accessment, together with stakeholders, has submitted this environmental management program due the necessary environmtntal law, para 54 of environmental regulation and environmental impact assessment procedure para (76). This report is compiled with all environmental law, rules, regulation and national effulant guidelines.

ဦးထွန်းနိုင်အောင်
နိုင်ငံသားလက်မှတ်အမှတ် ၁၂/ဗဟန(နိုင်) ၀၉၇၄၇၅
ဥက္ကဋ္ဌ
ကောင်းကျော်စေအင်ဂျင်နီယာလုပ်ငန်းကုမ္ပဏီလီမိတက်။
ဥက္ကဋ္ဌ၊
စွမ်းအင်နှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးအဖွဲ့၊
မြန်မာနိုင်ငံစက်မှုကုန်ထုတ်လုပ်သူများအသင်း။(MIA-EEnG)
အတွင်းရေးမှူး၊
(CDM Cooperation Board-Myanmar)စွမ်းအင်ဝန်ကြီးဌာန။
အကဲဖြတ်ဒိုင်
Board of Judges
ASEAN စွမ်းအင်ဆုရွေးချယ်ရေးအဖွဲ့၊ASEAN Center for Energy (ACE)

Mr. Jim Hua
Managing Director
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အမှတ်၄ရပ်ကွက်၊
ကွင်းအမှတ် (၁၈၄-ခ)(၁၈၅-စီ)ဦးပိုင်အမှတ်၁၇/၂၊၁၈/၁
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ယခုတင်ပြထားသည့်ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာပါကတိကဝတ်များနှင့်ပတ်ဝန်းကျင်ထိခိုက်မှုလျှော့ချရေးလုပ်ငန်းများနှင့်အစီအစဉ်များကိုစီမံကိန်းဖေါ်ဆောင်သူမှအပြည့်အဝအစဉ်အမြဲလိုက်နာဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။

We, the project proponent, committed to fulfil all commitments to the mitigation program as mentioned in this environmental management program report.

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေလုပ်ထုံးလုပ်နည်းအပိုဒ်(၇၆)အရပတ်ဝန်းကျင်ထိခိုက်မှုအစီအစဉ်ရေးဆွဲတင်ပြရန်လိုအပ်သည့်အတွက်ရန်ကုန်မြို့ မှ ကောင်းကျော်စေကုမ္ပဏီများအုပ်စု၏ ကောင်းကျော်စေအင်ဂျင်နီယာလုပ်ငန်းကုမ္ပဏီမှဦးဆောင်ပြီးသကဆိုင်ရာ Stake holders များနှင့်အတူတကွပတ်ဝန်းကျင်ဆိုင်ရာစီမံခန့်ခွဲမှုအစီအစဉ်လုပ်ငန်းများကိုစိစစ်လုပ်ဆောင်ခဲ့ပြီးယခုအစီရင်ခံစာဖြင့်တင်ပြထားသည့်အပေါ်သိရှိနားလည်သည့်အတိုင်းပတဝန်းကျင်ဆိုင်ရာစီမံခန့်ခွဲမှုအစီအစဉ်၊ကတိကဝတ်၊ပတ်ဝန်းကျင်ထိခိုက်မှုလျှော့ချရေးလုပ်ငန်းများနှင့်အစီအစဉ်များကိုအပြည့်အဝအစဉ်အမြဲလိက်နာဆောင်ရွက်မည်ဖြစ်ကြောင်းဝန်ခံအပ်ပါသည်။

Kaung Kyaw Say Engineering Co.,Ltd officed in Yangon, leaded the accessment, together with stakeholders, has submitted this environmental management program due the necessary of environmental impact assessment procedure para (76), we, the project proponent, committed to fulfil all commitments to the mitigation program as mentioned in this environmental management program report.

စီမံကိန်းလုပ်ငန်းများပြီးစီး၍စီမံကိန်းပိတ်သိမ်းချိန်တွင်လူမှုဝန်းကျင်အားထိခိုက်မှုအနည်းဆုံးဖြစ်စေရန်ဆောင်ရွက်မည်ဖြစ်ကြောင်းနှင့်ထိခိုက်မှုများရှိလာပါကထိခိုက်မှုအနည်းဆုံးဖြစ်စေမည့်အစီအစဉ်များကိုလည်းလုပ်ဆောင်သွားမည်ဖြစ်ကြောင်းဝန်ခံအပ်ပါသည်။

It is committed to conduct at least impacts to social and to fulfil the mitigation program during closure period at the time of project completion.

Mr. Jim Hua
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အမှတ်၄ရပ်ကွက်၊
ကွင်းအမှတ် (၁၈၄-ခ)(၁၈၅-စီ)ဦးပိုင်အမှတ်၁၇/၂၊၁၈/၁
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2	Introduction & Executive Summary	20

Hua Meng Myanmar Co.,Ltd incorporated in Myanmar has projected the manufacturing of Garments on CMP basic by renting land and building with total area of 6.73 Acres at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region, complying with Foreign Direct Investment Law. This is Environmental Management Plan Report compiled by the project proponent to prevent environmental impacts caused by the proposed project.

This project is the type of export promoted and SME development. The process consists of (1) Raw Material Preparing (2) Cutting (3) Binding (4) Sewing (5) Quality Inspection (6) Packing etc.

The description of environmental

The project of the manufacturing of Garments on CMP basic is located at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region. It is located at 16°,57' 14"N and 96°, 05' 49'E. The factory is surrounded mostly by paddy field. The topographic feature is plain ground.

The weather
Kangyidaunt Township located in Ayeyarwaddy Division Region is in the tropical region and has 3 seasons. It has 4 months each for Summer, Raining Season and Winter. The average year temperature is in the range of 21C° to 38C°.

There would be 2 types of impact would caused generally.

1. Temporary or short term Impact caused during construction period
2. Impacts caused by long term or operation process

There are potential impacts that csused from cutting process as major raw material such as 100% nylon, polyester etc based on the order demand which would harm to the environment by taking long time to degrade, air and soil pollution caused by dust & waste by forming and cutting process, noise from every steps of machining etc.

The following is the summary of impacts as taken assessment.
Table (1A) The Summary of Impacts (English)

Category	Scoping Item	Scoping Results		Assessment Result		Reason for Assessment
		Before/During Construction (BC/DC)	Operation Stage(OS)	Before/During Construction (BC/DC)	Operation Stage(OS)	
Pollution	Air Quality	-	B-	-	B-	OS: No Dust from the normal operating stage but there would be some particles in air at the downing section. There would be some impacts to the surrounding air because of diesel generator when it is electricity blackout. The emission from wood fired boiler
	Water Quality	-	D	-	D	OS: No Impact as nothing influence to the water
	Solid Waste	-	D	-	D	OS:The cutted waste and all solid waste should be systematically collected and applied to 3R system to reduce impact. Ash waste from wood fired boiler.
	Waste Water	-	B-	-	B-	OS:It would be impact by waste water generated from washing process.

	Soil Contamination	-	D	-	D	OS: No Impact
	Noise and Vibration	-	B-	-	B-	OS: No Impact as cylencer installed to engine exhaust but could not avoid for small Impact when the generator run during electricity blackout
	Ground Subsidence	-	B-	-	B-	OS: No Ground Subsidence Impact
	Offensive Odor	-	D	-	D	OS: No Oddor Impact by this project.
	Bottom Sediment	-	D	-	D	OS: No Impact as no waste to the river
Environment	Protected Area	-	D	-	D	OS: No Protected or Reserved Forest is nearby.
	Flaura/Fauna and Ecosystem	-	C	-	C	OS: No Impact to Flauna & Fauna as the area is in the industrial zone with no record to this area and eco system.
	Hydrology	-	D	-	D	OS: No Hydrology Impact
	Topography and geology	-	D	-	D	OS: No Impact to the topography and geology
Social Environment	In voluntary Resettlement	-	D	-	D	OS: No Resettlement is needed to this project. No occupants are found as it is in the industrial zone.
	Misdistribution of benefit and damage	-	C	-	C	
	Local conflit of interests	-	D	-	D	
	Gender	-	D	-	D	
	Children's Right	-	D	-	D	
	Ethnic minorities and indigenous peoples	-	D	-	D	
	Poor	-	A+	-	A+	OS: It causes positive impact as this project could create employment and help the poverty reduction.
	Living and livelihood	-	A+	-	A+	OS: The positive Impact at livelihood by this project as creating jobs to the local people.
	Existing social infrastructures and services	-	B+	-	B+	OS: Positive Impacts are expected to the local people
	Water Usage	-	D	-	D	OS: No Impact to the water usage
	Cultural heritage	-	C	-	B+	OS: There ae no heritage site near the project site but it could be positive impact to maintain the other cultural heritage as people are more interest to donate to such activities or raising funds while their livelihood are better than before.
	Landscape	-	C	-	B+	OS: No Impact as the factory is fully occupied. However, it could be positive impact if the land is reserved for greening area by planting trees.
	Risks for infectious disease such as AIDS/HIV	-	B-	-	B-	OS: As the numbers of workers are increasing, there are higher risks for infectious disease if the prevention or right management could not be in place.
	Working conditions (including occupational safety)	-	B-	-	B-	BC/DC: OS: Occupational Safety is the most important to be applied to the woring conditions at each and every stages of project.
Other	Accident	-	B-	-	B-	BC/DC: OS: The caution and prevention are always needed to be alarted as the accident could happen every stages. Impacts, not only to the industry compound but including vehicle and traffic accident are needed to be monitored. The woodfired boiler is needed to be watched always.
	Global Warming	-	B-	-	B-	OS: It could be Impact to the global warming from the waste disposal to the vehicle moving around.

It would not cause impacts by the project implementation as there won't be effulent and also planned to avoid these affects and mitigation program such as implementing 3R system which included management of collecting waste, reusing of cutted waste from cutting process.

The assessments were carefully done and arrange the mitigation measure environmental and socially potential impacts during operation stage to the following.

1. Dust pollution
2. Noise & Vibration
3. Waste and Wastewater
4. Flora and Fauna
5. Employment Opportunity

Air Quality - Dust Management Plan

Eventhough the project site was designed in the industrial zone and no households, there are no base line data recorded how much dust particles in the air and how much polluted in this area due to the vehicles passing.

The following are the major factors to the dust pollution and noise pollution

- Supporting trucks and vehicles moving around these areas.
- Construction machineries and pile driving
- Wind blowing effect to the dust
- Loading and unloading process by bulldozer, excavator and dump trucks
- Woodfired Boiler

To mitigate these impacts, it is needed to control the speed of vehicles and partition to the loading and unloading area.

Noise & Vibration Management Plan

As the major cause of noise comes from vehicles, construction machineries and communication among workers, it could be controlled by good management by the work charge or the team leader.
During operation period, there will be noise coming from sewing machines and others accessory in the factory. Eventhough, the electricity supply would be taken from the grid, the diesel generator would be running for black out time and could noise which is unavoidable. To mitigate the noise from the generator set, it could be installed in sound prove housing and install exhaust cylenser which could be very much useful to avoid noise impact. It should be priotize to work in day time just as much as possible and try to avoid working not later than 8pm.

The worst noise impact would come from diesel power generator and pile driving process and the loude communication between workers. To reduce these impacts, it could control by making partition at loading unloading area and manage the working hours or vehicle rerouting.

Solid Waste and Waste Water Management Plan

All these stages of project implementation, washing, toilet, and kitchen, woodfired boiler are the key areas that could smart control on water usage pattern, so that it could developed on mitigation process by control the amount of water used.

The nature of project is just making garments and there is no dying process which could be harmful to the environment. The following are the waste water that would comes from normal operation and process.

a) Waste water from Kitchen, Shower and Toilets
b) Waste water from the washing process
c) Solid and Cutted waste from the cutting section of the products
d) Ash from the boiler

Treated water would be discharged by contacting YCDC's waste and cleansing department or other service company when the waste water septic tank is full.

(Remarks) During the environmental impact assessment, it is found out that the proposed project was under operation stage as the constructions were completed.

The construction were completed and the proposed project would be done by renting these facilities.

This project would be done to be complied with international standard and guideline to avoid environmental impact caused by not only normal operation of machineries but also daily workers activities on wastes and effluents including fire prevention.

စဉ်	ဥပဒေများ	Law,Rule, regulation and Act.
၁	မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုဥပဒေ ၂၀၁၆	Myanmar Investment Law 2016
၂	မြေလွတ်၊မြေလတ်၊မြေရိုင်းများစီမံခန့်ခွဲရေးဥပဒေ ၂၀၁၂	Free Land, Vacant Land, Margin Land Management Law2012
၃	အလုပ်သမာအဖွဲ့ အစည်းဥပဒေ ၂၀၁၁	Labor Organization Law 2011
၄	အလုပ်သမားအငြင်းပွါးမှုဖြေရှင်းရေးဥပဒေ ၂၀၁၂	Settlement of Labour Disputes Law 2012
၅	လူမှုဖူလုံရေးဥပဒေ ၂၀၁၂	Social Security Law 2012
၆	အနဲဆုံးလုပ်ခကြေးငွေဥပဒေ ၂၀၁၃	Minimum Wages Law 2013
၇	အခကြေးငွေပေးချေရေးဥပဒေ ၂၀၁၆	Payment of Wages Law 2016
၈	ခွင့်နှင့်အလုပ်ပိတ်ရက်များဥပဒေ ၁၉၅၁	The Leaves and Holidays Act 1951
၉	စက်ရုံဥပဒေ ၁၉၅၁	Factory Act 1951
၁၀	အလုပ်သမားလျော်ကြေးအက်ဥပဒေ ၁၉၅၁	Workmen Compensation Act 1951
၁၁	ရေနံနှင့်ရေနံထွက်ပစ္စည်းဆိုင်ရာဥပဒေ ၂၀၁၇	Petroleum and Product of Petroleum Law 2017
၁၂	ရေနံနည်းဥပဒေများ၁၉၃၇	Petroleum Rules 1937
၁၃	မော်တော်ယာဉ်ဥပဒေ ၂၀၁၅	The Motor Vehicle Law 2015
၁၄	မော်တော်ယာဉ်နည်းဥပဒေ ၁၉၈၇	The Motor Vehicle Rule 1987
၁၅	ပြည်သူကျန်းမာရေးဥပဒေ၁၉၇၂	Public Health Law 1972
၁၆	ကူးစက်ရောဂါများကာကွယ်နှိမ်နင်းရေးဥပဒေ ၁၉၉၅	Prevention and Control of Communicable Diese Law 1995
၁၇	မြန်မာ့အာမခံလုပ်ငန်းဥပဒေ ၁၉၉၃	The Myanma Insurance Law 1993
၁၈	မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ဥပဒေ ၂၀၁၅	Myanmar Fire Force Law 2015
၁၉	ပို့ကုန်သွင်းကုန်ဥပဒေ၊၂၀၁၃	The Export and Import Law 2013
၂၀	အလုပ်အကိုင်နှင့်ကျွမ်းကျင်မှုဖွံ့ဖြိုးတိုးတက်ရေးဥပဒေ၂၀၁၃	Employment and Skill Development Law 2013
၂၁	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ ၂၀၁၂	The Environmental Conservation Law 2012
၂၂	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနည်းဥပဒေ ၂၀၁၄	The Environmantal Conservation Rules 2014
၂၃	ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း ၂၀၁၅	Environmantal Impact Assessment Procedure 2015
၂၄	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု)လမ်းညွှန်ချက်များ ၂၀၁၅	Emission Quality Standards Guideline 2015
၂၅	တိုင်းရင်းသားလူမျိုးများ၏အခွင့်အရေးကာကွယ်စောင့်ရှောက်သည့်ဥပဒေ ၂၀၁၅	The Rights of National Races Law 2015
၂၆	ဧရာဝတီတိုင်းလွှတ်တော်မှပြဋ္ဌာန်းသည့်ဥပဒေများအနက်ဆက်စပ်သည့်ဥပဒေများ၊ နည်းဥပဒေများ။	All related Laws and Rules enacted by Ayeyarwaddy Division Region Hluttaw
၂၇	နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှုဥပဒေ (၂၀၁၂)	
၂၈	ကုန်သွယ်ခွန်ဥပဒေ (၁၉၉၀)	
၂၉	သဘာဝဘေးအန္တရာယ်ဆိုင်ရာစီမံခန့်ခွဲမှုဥပဒေ (၂၀၁၃)	
၃၀	အလုပ်ရုံများအက်ဥပဒေ (၁၉၅၁)	
၃၁	မာတုပစ္စည်းများအန္တရာယ်မှတားဆီးကာကွယ်ရေးဥပဒေ (၂၀၁၃)	
၃၂	ဘွိုင်လာဥပဒေ (၂၀၁၅)	

It is also well organized and planned for mitigation and monitoring program with environmental management plan.

It is also planned to organize for greening and emergency evacuation plan.

Mitigation Measures in the Operation Phase

Table (2 A) Summary of Mitigation

Category	Item	Mitigation and Consideration Measures in Operation Phase	Responsibility
Pollution	Air Quality	-Cleaning dust in the factory always -In case that a tenant live in the factory area which may cause exhaust gas pollution such as intensive cooking. -Exhaust Air treatment and Filteration would be installed	Workers
	Water Quality	-No impacts to the surface and ground water as the septic tank is istalled	Developer
	Solid Waste	-Domestic, commercial and sewage sludge will be controlled by workers such as applying 3Rs. -Ash from the boiler would be used as fertilizer to the greening plan.	Developer
	Waste Water	-Waste water treatment system is needed	Developer
	Soil Contamination	-Ban on infiltrate liquid waste onto the ground.	All
	Noise and Vibration	Buffer zone for sound-proving to the diesel generator using at black out time. (The engine has installed the cylencer)	Developer
	Ground Subsidence	-Consumption of ground water would be carefully controlled based on monitoring of ground water level.	Developer
	Offensive Odor	-Offensive odor which might be generated by the tenants would be strictly controlled.	Tenants
	Bottom Sediment	-Waste water from the septic tank through the plant and tenants would be comply with national guide lines.	Developer
Natural Environment	Flora, Fauna and Biodiversity	-Planting and Maintenance of trees, vegetation , lawn in the public space such as road, retention pondand and other open spaces.	Developer
	Hydrological Situation	-Storm water would be utilized where it is suitable such as retention ponds, for gardening etc.	Developer
Social Environment	Living and Livelihood	Septic tank system is designed to meet requirement of target effluent water quality. -no impact on loss of livelihood	Developer
	Existing social infrastructures and services	Community accessibility will be secured by improvement of existing road and construction residential road.	Developer
	Water Usage	It is controlled	Developer
	Risk and Infectious disease such as AIDS/HIV	-Measures of infectious disease will be implemented as follows; • Plan for prevention of infectious disease from spreading. • Training plan for workers	Developer
	Working conditions (including occupational safety)	-Working conditions for worker will be managed by tennants on requirement of Occupational Health and Safety (OHS)	Developer
Other	Accident	-Accident prevention measures inside and outside the project area will be planned.	Developer
	Global Warming	-Minimization of GHGs emission by construction machines and vehicle will be planned	Developer

The following table shows the detailed information on how the parameter, method and program for the point that is to be measured.

Noise

No	Point of Pollution	Cause	Affected	Parameter	Indication	Method	Person	Duration
1	Surrounding of Project Area	Traffic(Car Parking, loading/Unloading)	Noice	Sound Level	dB	Sound Level Meter		Daily

Water & Waste Water

No	Point of Pollution	Cause	Affected	Parameter	Indication	Method	Person	Duration

1	Surrounding	Washing Process Drain/Car Wash,etc.	Waste Water	Flow rate	BOD, COD	Lab Analysis	Person In charge	Daily, Weekly Monthly

Air

No	Point of Pollution	Cause	Affected	Parameter	Indication	Method	Person	Duration
1	Inside Factory and/or Surrounding	Emission, Exhaust(Machines ,Vehicle,etc.)	Air	Exhaust Air (Temp/Pressure)	(Temp;humidity PM_{10},NO,SO_2,CO) Ordor level	Lab Analysis	Person In charge	Daily, Weekly, Monthly

Solid Waste

No	Point of Pollution	Cause	Affected	Parameter	Indication	Method	Person	Duration
1	Surrounding	Tree leaves	Solid Waste	Volume/Weight	Volume	Visual, Weight Measurement	Person In charge	Daily, Weekly, Monthly

The data to be collected, locations, periods and the data collectors all should be managed pre construction, during construction and normal operation period respectively.

(Remarks, It could be omitted the pre-construction and during construction stage as the project is in the operation stage.)

Table (13) **Monitoring Plan (Operation Phase)**

Category	**Item**	**Location** (In factory and surrounding)	**Frequency**	**Responsible Organization**
Common	Monitoring of mitigation measures	Project Site (In factory and surrounding)	Quaterly (after 3 year of operation)	SPC
Air Quality	SO_2,NO_2,CO,TSP,PM_{10}	Construction Site (In factory and surrounding)	One week in dry and wet season	SPC
Water & Waste Water Quality	pH, SS, DO, BOD, COD, oil & grease, chromium	Construction Site(In factory and surrounding)	Once a year	SPC
Solid Waste	Amount of solid waste Management of solid waste of construction	Each tenant (In factory and surrounding)	Once/3month	Tenants
Soil Contamination	Status of control of solid and liquid waste which causes soil contamination	Each tenant (In factory and surrounding)	Once a year	Tenants
Noise and Vibration	Noise & Vibration level	Each tenant (In factory and surrounding)	Once (peak period)	SPC
Ground Subsidence	Ground elevation	Preservation site	Once a year	SPC
Offensive Odor	Status of offensive odor control by tenants	Each tenant (In factory and surrounding)	Twice per year	Tenants
Bottom Sediment	Combine with water quality	Preservation site	Once a year	SPC
Hydrology	Consumption of ground water amount	Preservation site	Once a year	SPC
Water Usage Hydrological Situation	Combine with ground subsidence monitoring	Preservation site (In factory and surrounding)	Once a year	SPC

Risk for infectious disease such as AIDS/HIV	Status of measures of infection disease	Each tenant/Worker	Once/month	SPC/Tenants
Working conditions (including occupational safety)	Working condition with safety and health	Work site	Once /month	SPC
Accident	Existence of accident	Work Site	As occasion arises	Tenants

The find out data should be checked with National Environmental Quality (Emission) Guidelines.
The instruction for reporting program, from time to time or emergency reporting was fully described to the concerned group or supporting group.

The impacts and mitigation measures on social economic

With the creation of jobs for local and nearby villages could definitely help income generation which is positive impact to social economic by this project.

The public consultation and declaration

The public consultation meeting was held as following
(1)The meeting hall of Kangyidaunt City Development Committee Office on 2018 September 27.
(2)The Kangyidaunt City Hall (Ayeyar Thri Thu Hka Hall) on 2019 May 23.

No.	Date	Description	Vanue
1	27-9-2018	Public Consultation Meeting with stakeholders, Kangyidaunt Tsp Level Government, NGOs and Organizations	Kangyidaunt City Development Committee Office
2	23-5-2019	Public Consultation Meeting with stakeholders, Kangyidaunt Tsp Level Government, NGOs and Organizations	Kangyidaunt City Hall(Ayeyar Thri Thu Hka Hall)

The impact of the waste water released from the factory to the public drain is the major issue and discussed majorly in this public consultation meeting. It was explained cleared to the audience about the undergoing waste water treatment plant installed in the factory by the responsible persons by explaining with the power point presentation. It is also committed that the project would be started after monsoon season and will be acknowledged after completion.
All the suggestion or complaint related to environmental and social affairs could be sent directly to the project office or through quarter or township administration office even the project is implemented in the industrial zone where other factories are surrounded and no public consultation made properly but any one can participate in environmental monitoring program.
The capacity building to the employees would be arranged together ECD of MONREC by trainings and courses when it is necessary.
The organizing and fund allocation are made for mitigation and monitoring program.

In conclusion, it is the project that Hua Meng Myanmar Co.,Ltd incorporated in Myanmar has projected the manufacturing of Garments on CMP basic by renting land and building with total area of 6.73 Acres at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region, complying with Foreign Direct Investment Law would help GDP, the SME sector development and productivity in the region as well as generate direct and indirect employment in the area.

Remarks: :Eventhough the waste water were discharged to community drain in the past time, it is found out the preparation for the installation of waste water treatment system recently. The lab test results and on ground situation were recorded and attached in the annex.
It would be reported again when the waste water system is installed and operate with lab record.
The waste water treatment plant is already installed and operating by the time of submitting this revised report. The operating and lab test results are attached to this report. (Pls find on annex.)

Hua Meng Myanmar Co.,Ltd incorporated in Myanmar has projected the manufacturing of Garments on CMP basic by renting land and building with total area of 6.73 Acres at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region, complying with Foreign Direct Investment Law.

The Ayeyarwaddy Division Investment Commission is working for the approval of the proposal of investment in Manufacturing of Garments on CMP Basic under the name of Hua Meng Myanmar Co.,Ltd submitted by Mr. Jin Hua from Sangai China as a wholly foreign owned investment in accordance with the union of Myanmar Foreign Investment Law and the Myanmar Company Act in order to carry out the business of manufacturing of garments on CMP basic at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region.

The project is originally to build and operate the garment factory that will produce jacket, blazier, dress, blouse, shirt and pant by employing about 900 local workers and 20 foreign experts depending on getting orders at CMP basic.

By complying the standards of Myanmar Environmental Law, Rules and Regulation, this project would be beneficial to the state and people by generating taxes and creating thousands of job opportunities, receiving foreign exchange and technology transfer of high quality garment manufacturing.

Table 3. Project Owner and Proponent, Project Implementation and Implementing Organization of EMP

Item	Organization
Project Owner and Proponent (Contact Person: Ms. May Thandar Zaw)	Hua Meng Myanmar Co.,Ltd U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region. Mobile 09784712747 email; hm.myanmarkgd@gmail.com
Relevant Organization of Project Implementation (Contact Person: Ms. May Thandar Zaw)	Hua Meng Myanmar Co.,Ltd U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region. Mobile 09784712747 email; hm.myanmarkgd@gmail.com
Implementation Organization of IEE,EIA,EMP (Contact Person: Ms. Myint Myint Thein)	Kaung Kyaw Say Engineering Co.,Ltd No.31,Pinlone Yeikmon 5th Street, Pinlone Yeikmon, Thingungyun Tsp, Yangon, Tel; 01-571284 email: mdoffice@kaungkyawsay.com
Consultant List	As shown on page 29

Project Location,

The project of the manufacturing of Garments on CMP basic is located at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region. (As shown on the map)
It is located at 16°,57' 14"N and 96°, 05' 49'E.

Fig 2

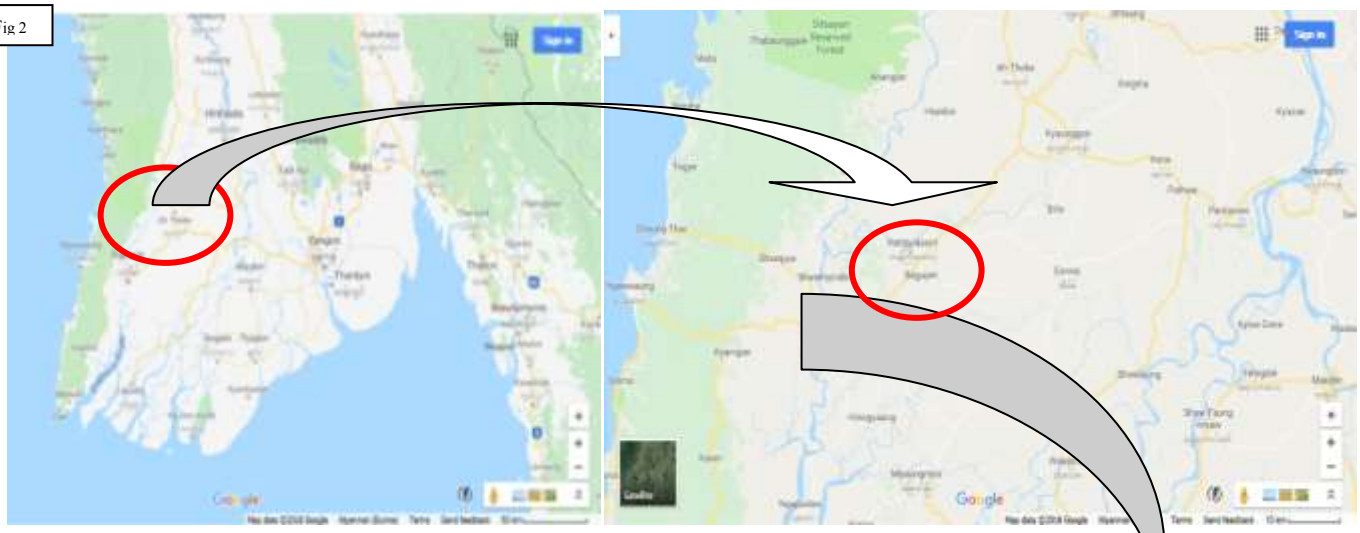


Fig 3

Fig 4

Fig 5

Size and Magnitude of Operation,

It is located at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region with the area of (6.73 Acres)
Hua Meng Myanmar Co.,Ltd's Garment Factories, has buildings as following.

Data for Factory & Building			
No.	Bulilding	Qty	Size
1	Factory	1	(38m x 100m)
2	Transformer & Generator Set,	1	(16m x 3m)
3	Steam Generator (Boiler)	1	(20m x 25m)
4	Water House	1	(8m x 12m)
5	Factory II	1	1(10m x 26m)
6	Water Tank Area	1	(8m x 14m)
7	Electrical Control Center	1	(4m x 3 m)
8	Hostel (2 storeys)	1	(12m x 16m)

Fig 6

The factory lay out to the plot is as following.

<table>
<tr><td>Hospital</td><td rowspan="4">Myothis Street</td><td colspan="2">Paddy Field</td></tr>
<tr><td>Paddy Field</td><td colspan="2">Paddy Field</td></tr>
<tr><td rowspan="2">Paddy Field</td><td>Hua Meng Myanmar Co.,Ltd</td><td>Paddy Field</td></tr>
<tr><td colspan="2">Paddy Field</td></tr>
</table>

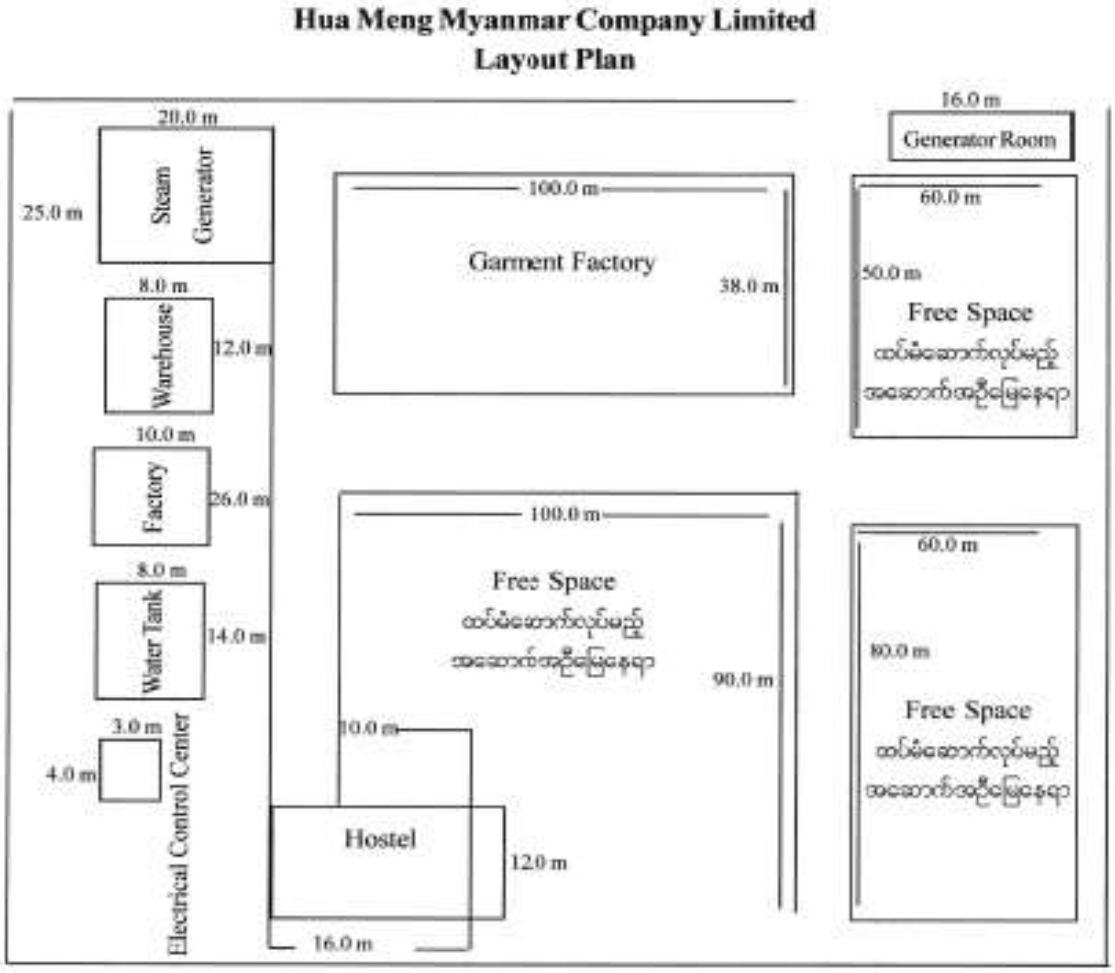
Project Start : 1-8-2017
MIC permit :20-6-2018
Production Start : 25-6-2019

The Brief information of members of the Environmental Team of Kaung Kyaw Say Engineering Co.,Ltd

No	Name	Position	Responsible
1	U Htun Naing Aung (B.E)(Mechanical) A.G.T.I (Mechanical Power)	Chairman, Senior Consultant	All parts of assessment & reports (Specialize in Air pollution Control, Ground Water & Hydrology, Waste Management)
2	Daw Mya Mya Aye (B.A)(History)	Consultant (Social Economic & Environmental)	Social Economic & Environment
3	U Mya Cho (B,Sc,)(Forestry)	Consultant (Environmental & Forestry)	Environmental & Forestry
4	Mr. Salil Duct MBA, M.Tech (Environment Management)	Consultant (Industrial & energy audit)	Industrial Pollution Prevention & Control
5	Dr. Tint Swe (Phd) (Marinebiology)	Consultant (Marinebiology)	Marinebiology & Environment
6	Daw Khin Sint Yi M.Sc (Bottany)	Consultant (Ecology & Biodiversity)	Ecology & Biodiversity, Social Economy (Flora)
7	Daw Than Than Aye (M.E) (Electrical)	Consultant (Electrical)	Electrical & Environment
8	U Zin Maung Lwin BSc (Geology), Dip in Geotechnical Engineering	Consultant (Geology)	Geotechnical Engineering
9	Dr. Khin Mar Mar M.B,M.S, MPH USMLE (Step.2)	Consultant (Health)	Public Health
10	Daw Ni Ni Aung B.A (Geography)	Consultant (Geography)	Topography & Geography
11	Daw Myint Myint Thein	Assistant Consultant	M&E , Data collect

အစီရင်ခံစာတွင်အစီရင်ခံစာရေးသားပြုစုသူတစ်ဦးချင်း၏လုပ်ငန်းအတွေ့အကြုံကိုပူးတွဲဖော်ပြအပ်ပါသည်။

Manufacturing Layout



Proposed Schedule of Implementation,

It is recorded the progress of project as following to produce such as Men and Women Down Coat & Jacket, Inner down vest, paddling jacket, Men's Wing Breaker Jacket, Duffle Coat, P-Coat, Women's Fleece Coad, Trench Coat etc. by importing all necessary raw materials such as cloths buttons and zips etc.

The Environmental and Social Goal

Myanmar is priotizing to reach its goal of becoming the developed country and all citizens's economic and social development for its SMEs to get sustainable development without getting environmental impacts.

The environmental and social goal is as following.

1. To manufacture all kinds of garments with less or without impacts to the environment.
2. To apply the least or no impact technology to both social and environment
3. To increase GDP
4. To develop technicians and experts

Conceptual Project Layout and Components,

It is located at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region with the area of 6.73 Acres.

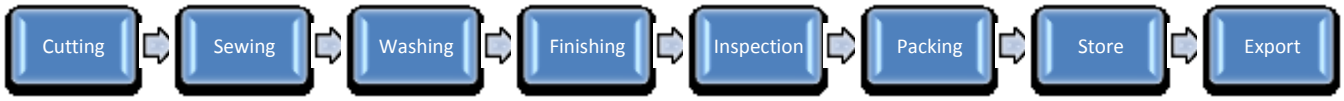
(1)Production of Ready Made Garment for International Market

(2)Creation of jobs and skilled labors

The process flow is as following.

The Flow Chart of the Garment Manufacturing (Grand Enterprises Garment Co.,Ltd)

Fig 7



There are 8 Production Lines operating up to the orders received and design based on the finished products.

1. Raw Material Preparing

All raw materials received from oversea countries in large bolts with carboard or centre tube made with plastic or paper or in piles or bags.

2. Fabric Relaxing

This process allows material to relax and contract prior to being manufactured. The relaxing process allows fabrics to shrink so that further shrinkage during customer use is minimized. It is performed either manually or mechanically. Manual fabric relaxing typically entails loading the bolt of fabric on a spinner and manually feeding the material through a piece of equipment that relieves tension in the fabric as it is pulled through. Machanical fabric relaxing performs the same process in an automated manner. At this stage the garment manufacturer will also integrate quality assurance into this process to ensure that the quality of the fabric meets customer standards. This step is performed by manually spot-checking each bolt of fabric using backlit surface to identify manufacturing defects such as color inconsistency or flaws in the material. Fabric that fall to meet customer standards are returned to the textile manufacturer.

3. Cutting

In this process spreading, form layout and cutting are performed. After fabric has been relaxed, it is transferred to the spreading and cutting area of the garment manufacturing facility. The fabric is first cutted into uniform plies and then spread either manually or using computer-controlled system in preparation for the cutting process. The fabric is spread to allow designer operators to identify fabric defects, control the tension and slack of the fabric during cutting and to ensure each ply is accurately aligned on top of the others. The number of plies in each spread is dependent on the fabric type, spreading method cutting equipment and size of the garment order. Then garment forms or patterns are laid out on top of the spread either manually or programmed into an automated cutting system. Lastly, the fabric is cut to the shape of the garment forms using either manually operated cutting equipment or a computerized cutting system.


4. Sewing

This section makes garment from a pieces of fabric cutted into designer garments by sewing in an assembly line. It becomes more complete as it is progresses down the sewing line. There are 8 lines of sewing in this factory one and expanding addition lines in the extended factory. Sewing machine operators receive a bundle of cutted fabric and sew the same potion on each fabric or combine as assigned. It needs continuously sew the same potion and passes the completed portion to the next operator. For instance, first operator may sew the collar to the body of the garment and passed to the next operator for the sleeve to the body etc.



Quality assurance is performed at the end of the sewing line before delivering to the next step to ensure that the semi garment has been properly assembled and that no manufacturing defects exist. The garment would be revoked or mended at designed sewing station(s) if it is needed. In fact, this part of labor intensive process progressively transforms pieces of fabric into designer garments.

Washing

It is one of the important production stage in this garment factory. The products especially jean pants are washed at this stage after sewing due to the order demand such as teared ones or soft ones.

(pls find photos of following.)

Washing Machines

(The estimated water consumption: 100m^3/day)
It is using underground water and enough to utilize.

Drying

After washing, it is needed to rinse and dry as following by using different size of machine.

Water Risning before drying

Steam dryers

Hot Air Blower for drying

Ironing

This section is one of the main parts of the garment manufacturing as it is transferred from sewing section. The fully sewn and assembled garments are needed to press with iron. Each iron station consists of an iron and an ironing platform. The irons are similar shaped with residential model but have steam supplied by and on site boiler. The steam is delivered via overhead hoses directly to the iron and the workers could control the steam and temperature as required. The ventilation system are installed both the iron platform and wall mounted and exhausts it outside the factory.

5. Quality Inspection

The quality inspection is most important before packaging for product sale. It is overall quality assurance of the products at every parts of the workmenship such as sewing lines and quality, pocket and zip position, and finally the clinliness etc.

Packing

This is the last part of the garment manufacturing, making a product retail-ready. The garments are folded, tagged, sized and packed accordingly to customer specifications. The garments may be placed in protective plastic bags, either manually or using automated system to ensure that the material stays clean and pressed during shipping. Finally the garments are placed in carboard boxes in quantity of the order from customers and shipped to client country.

Tearing Section

The tearing section is needed if the order is special order on jean pants and it should be done as shown. This section needed special instrutement (manual) and is to work with closed inspection by product expert.

Color Shading Process

The color shading section is needed if the order is special order on jean pants and it should be done as shown. This section needed special 30killfulness (manual) and is to work with closed inspection by product expert.

Color Shading by special stone and dyes

The color shading by special stone and dye section is needed different looks on jean pants and it should be done as shown. This section needed not only special instrutement but also needed special stone which is imported from China and is to work with closed inspection by product expert.

Dying process

The special stones are important and needed to mix with color agent and it would be appeard or left as shown above at the end of process.

Table (4) The salient data for the project

No	Description	Qty	Remarks
1	Working Time	8 hours	Overtime would be based on the demand of product and timing
2	No of machines	As shown the imported equipments	Schedule-2 Schedule-3
3	No. of workers (Ref; to MIC proposl)Extension	900 nos. 20 nos.	Local 97.8%, experts 2.2%
4	Annual Fuel Requirement (Diesel)	24,000 gals	For generator,Truck
	Annual Lubricant Requirement (Diesel)	1,000 gals	For Sewing Machines
5	Annual Fuel Wood Requirement	240,000 viss	For boiler
6	Annual Electricity Requirement	540,000 units	From both grid and own geneartion
7	Annual Water Requirement (Approx;)	1,500,000gals	From tube well
8	Solid Waste	0.2 tons per day	Sold out to recycle buyer
9	Waste Water	$10m^3$ ~$50m^3$ per hour	Treated at newly built waste water treatment plant

All finished products (100%) should be exported as the project is under CMP system. This project would create employment as there would be 900 vacancies with 20 foreign experts at the factory when it is in the full operation stage. (Ref; the proposal to MIC)

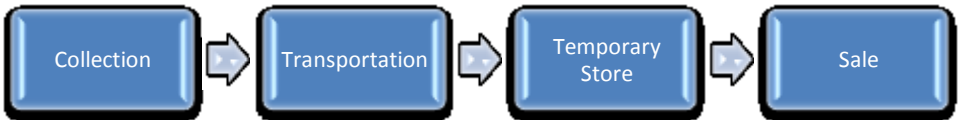
The raw materials required to be used and the norm for one piece would be mentioned as attached. The raw materials are (1)Fabric (2)Interling (3)Rib (4)Label (5)Thread(6)Button (7)Zipper(8)Elastic(9)Draw Sting(10)Poly bag. (All import from China.)

The finished products would be (1)Woven Garment (2)Woven Coat (3)Woven Pant (4)Woven Skirt (5)Woven One Piece (6)Woven Pant (7) Knitted One Piece (8) Baby Ware (9) Down Coat (10) Down Vast etc.

Hua Meng Myanmar Company Limited

1.	Project Name	Garment Factory Project
2.	Commercial Operating Started	2018 April 1
3.	Project Proponent/Owner	Hua Meng Myanmar Company Limited
4.	Address	Hua Meng Myanmar Co.,Ltd U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region,Phone 09-784712747
5.	EIA undertaker	Kaung Kyaw Say Engineering Co.,Ltd
6.	Address	No. 31 Pinlone Yeikmon 5th Street, Pinlone Yeikmon, Thingungyun Tsp, Yangon, Myanmar. Tel 571284
7.	Verified by	Daw Mya Mya Aye
8.	Examined by	U Htun Naing Aung
9.	Compiled by	Daw Myint Myint Thein

The flow chart of the solid waste



All the waste are sold out to the recyclist as shown above.

Project Start : 1-8-2017
MIC permit :20-6-2018
Production Start : 25-6-2019

- All Required Raw Materials are to be imported from China as it is CMP basic method.
- The amount of products are shown on Annex.

Eventhough the finished products would be (1)Woven Garment (2)Woven Coat (3)Woven Pant (4)Woven Skirt (5)Woven One Piece (6)Woven Pant (7) Knitted One Piece (8) Baby Ware (9) Down Coat (10) Down Vast etc mentioned during submission at MIC approval process, the order from clients get only Woven Pant and the other products are still awaiting the orders. The amount of product would be as following.

Period/Products	Woven Garment	Woven Coat	Woven Pant	Woven Skirt	Woven One Piece	Woven Pant	Knitted One Piece	Baby Ware	Down Coat	Down Vast
Daily	-	-	1200	-	-	-	-	-	-	-
Monthly	-	-	30000	-	-	-	-	-	-	-
Yearly	-	-	360000	-	-	-	-	-	-	-

Description of Environment

Location of Project

The project is located at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region.

Climate

Kangyidaunt Township is in Ayeyarwaddy Division Region and it has tropical monsoon and comprised of 3 seasons like other parts of Myanmar. It is 4 months each for Raining Season, Winter and Summer. The temperature typically range from 22°C ~38°C.

Geology

The topography of this area is flat agricultural land. It has about 4 months of rain and 70~85%RH in monsoon season and 40~50%RH in dry season.

The Livelihood

The livelihood of the residents of Kangyidaunt is mainly the agri farmers with the combination of fishermen, traders and public servents etc.

The livelihood of the residents of Kangyidaunt Township is variety from daily wages to the company owner and from skill labor to Executive and the resident of military personals and the oversea migrant workers and seamen etc.

Environmental Assessment

Noise, Air quality, ground quality are recorded during assessment and comparation with National Environmental Quality Guideline as following.

	Receptor		NEQEG	Assessment
Noise One Hour L_{Aeq} (dBA)	Residential, institutional, educational	Day Time 07:00~22:00	55	
		Nigh time 22:00~07:00	45	
	Industrial, Commercial	Day Time 07:00~22:00	70	
		Nigh time 22:00~07:00	70	
Dust µg/m^3	Pm2.5 (24 hr)		25	47
	Pm10 (24hr)		50	84
Soil	PH		-	

The Ambient Temperature

According to the meteorological department's recorded fof 2013 it is found as following.

Month	Temperature (C°)		Relative Humidity		Pricipitation (mm)
	Max	Min	Day (09:30)	Night (18:30)	
Jan	23.3	6.6	79	67	7
Feb	27.6	10.0	64	52	-
Mar	30.2	12.9	56	53	0
Apl	32.1	15.6	59	50	31
May	29.1	17.7	75	67	86
Jun	27.8	18.5	83	83	171
Jul	27.2	18.4	88	82	175
Aug	26.1	17.5	91	92	213
Sep	26.7	17.1	86	89	454
Oct	25.5	14.7	86	84	290
Nov	26.2	10.2	82	86	3
Dec	22.1	5.1	85	82	3

Land Use

The area is the dustrial and commercial land and agriculture activities were occurred near by areas.

The Land Use Pattern

It is the commercial, industrial, agriculture and residential area mix by individual ownership and land use pattern.

Population

The total population of Kangyidaunt Township is 177,900 while 48.8% is mail and 51.2% is female.

Religion

The majority of residents in Kangyidaunt is Buhdist followed by Christian, Hindis, Islam and others respectively.

Transportation

Transportation items

Table 18: Conventional households by availability of transportation items by urban/rural

Region/District/ Township	Conventional households	Car/Truck/ Van	Motorcycle/ Moped	Bicycle	4-Wheel tractor	Canoe/ Boat	Motor boat	Cart (bullock)
Ayeyawady Region	1,466,983	9,068	276,847	566,391	38,838	211,646	100,106	227,654
Urban	200,962	4,706	69,392	116,659	3,030	3,774	3,457	5,549
Rural	1,266,021	4,359	207,455	447,732	33,806	207,872	96,649	222,105
Pathein District	394,147	3,485	86,618	151,744	10,216	44,989	18,471	62,528
Urban	69,584	2,053	26,927	37,461	1,117	1,644	1,211	2,485
Rural	324,563	1,432	59,691	114,283	9,099	43,345	17,260	60,042
Kangyidaunt Township	42,966	252	7,475	14,848	1,137	6,348	2,337	5,984
Urban	2,674	43	781	1,294	99	156	38	271
Rural	40,292	209	6,694	13,554	1,038	6,190	2,299	5,693

- In Kangyidaunt Township, 34.6 per cent of the households have bicycle as a means of transport and it is the highest proportion, followed by 17.4 per cent of households having motorcycle/moped.
- Analysis by urban/rural residence shows that the majority of the households mainly use bicycle as a means of transport.

Air Quality

The air quality was checked for PM2.5, PM10, HCHO, VOC, CO, NO2 etc.To get the air quality the assessment team had measured same as others (5 points). The measurement could made only in the day time. (Pls find detailed measurement result on annex.)

Ambient Air Quality Measurement

No	Parameter	Unit/ Lat/Long	NEQEG	Pt.1 16°55'22.24"N, 94°54'15.46"E	Pt.2 16°55'22.82"N, 94°54'14.74"E	Pt.3 16°55'21.45"N, 94°54'13.89"E	Pt.4 16°55'20.65"N, 94°54'12.89"E	Pt.5 16°55'18.41"N, 94°54'14.25"E	Remarks
1	$PM_{2.5}$	mg/Nm^3	25	25	27	24	25	23	
2	$PM_{10,}$	mg/Nm^3	50	39	39	38	39	37	
3	HCHO	mg/Nm^3	-	0.02	0.02	0.02	0.02	0.02	
4	Volatile organic compounds (VOC)	mg/Nm^3	-	0.16	0.15	0.16	0.16	0.16	

The coordinate of points measured are shown in the above table.

Noise

It is nature. It found out just 55db in the day time. (Pls find detailed measurement result on annex)

Noise Measurement (db)Room Temp.(C) RH %

Pt.1			Pt.2			Pt.3			Pt.4			Pt.5			Remarks
16°51'04.58"N, 96°06'35.29"E			16°51'07.88"N, 96°06'33.15"E			16°51'07.18"N, 96°06'34.81"E			16°51'09.03"N, 96°06'35.37"E			16°51'05.63"N, 96°06'37.06"E			
Noise (db)	Temp (C°)	RH (%)	Noise (db)	Temp (C°)	RH (%)	Noise (db)	Temp (C°)	RH (%)	Noise (db)	Temp (C°)	RH (%)	Noise (db)	Temp (C°)	RH (%)	
68	22.8	91.2	65	21.7	91.1	65	22.8	91.5	65	23.0	92.1	69	22.8	91.7	

The data are refered only day time at normal operation period. There is no data for night time as the factory works only day time.

Table (7) Noise Standards

Receptor	One Hour L_{Aeq} (dBA)	
	Day Time 07:00~22:00	Nigh time 22:00~07:00
Residential, institutional, educational	55	45
Industrial, Commercial	70	70

Operation Phase

Water quality

During assessment, there is no surface water as it is dry season. (Tube well water Lab test result shown on Annex)The sample water were collected and sent to laboratory in a ice box to reach in 10 hours.

Soil quality
The soil quality is nature with pH 6.8. The access road construction, clearing vegetation, moving top soil would cause impact to the top soil and ground.

Soil Test

No	Parameter	Pt.S1 16°51'04.58"N, 96°06'35.29"E	Pt.S2 16°51'07.88"N, 96°06'33.15"E	Pt.S3 16°51'07.18"N, 96°06'34.81"E	Pt.S4 16°51'09.03"N, 96°06'35.37"E	Pt.S5 16°51'05.63"N, 96°06'37.06"E	Remarks
1	Moisture (%)	68%	75%	82%	72%	72%	
2	PH	6.8	6.8	6.8	6.8	6.8	

Ecosystem
Environmental Condition
The project is located in the flat land area. It is industrial land and suitable to work all seasons.
It has 3 seasons such as summer, raining season and winter.

Flaura and Fauna
There is no previous record about the flaura and fauna in this area but it is easily recorded some of the creatures such as sparrow, crow, cat, dog etc.As the area is industrial land area, no wildlifes are easy to see these days.

Accessibility
The project has access road for car. It is urban road connected at east and south side of the project area

Social
Most of the residents are employees of both private or public sectors and variety of livelihoods including seasonal or temporary workers or unemployment.

All primary data are collected from regional data book available from the office of general administration office and secondary data are collectd by the assessment team during field survey period of 2016 and 2019 to cover yearly round data with the assistant of on line application.

Social & Economic Data

Kangyidaunt is one of the townships in Pathein District of Ayeyarwaddy Division. The livelihoods are mainly on agriculture and fishery. The economy is very slow as the agriculture products are affected by the increasing prices on fertilizers, labor wages etc. With the job creation at this factory, it could help social and economic of not only local residents but also the neighboring villages.

- All Required Raw Materials are to be imported as it is CMP basic method.
- The amount of products are shown on Annex.

The environmental assessment meters are as following.

The equipments (Test Meters)

No.	Parameter	Equipment	Model
1	Air Quality	(1)CEM Particle Counter (2)Portable Hand-Held Detector	(1)DT-9881 (2) BR Smart-126
2	Noise	(1)CEM Environmental Meter (2) UTSound Level Meter	(1)CEM DT-8820 (2) UT 351/352
3	Moisture/Temp/pH/Light Intensity	Soil Survey Instrument	4in1model
4	Temperature (Surface)	CEM Compact InfraRed Thermometer	CEM DT-8802

Myanmar Environmental Policy

The Government is to protect and conserve the natural environment and implies every citizen of Myanmar to assist the Government in environmental conservation. It is clearly mentioned in the constitution of the Republic of the Union of Myanmar. The National Environmental Policy was enacted in 1994 which is the basis for the integration of environmental consideration into development in Myanmar which proclaims the Government's commitment to sustainable development. The state has 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. All natural resource management and environmental conservation work in pursuit of activities relating to biodiversity conservation is clearly mentioned in the Myanmar Agenda 21 developed in 1997.

The Environmental and Social Goal

Myanmar is priotizing to reach its goal of becoming the developed country and all citizens's economic and social development for its SMEs to get sustainable development without getting environmental impacts.

The environmental and social goal is as following.

1. To manufacture all kinds of garments with less or without impacts to the environment.
2. To apply the least or no impact technology to both social and environment
3. To increase GDP
4. To develop technicians and experts

The following table shows the applicable policy, legal and Institutional Framework, laws and regulations that should be compliance to this project.

Table (5) Law, Rule, Regulation and Act

စဉ်	ဥပဒေများ	Law,Rule, regulation and Act.
၁	မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုဥပဒေ ၂၀၁၆	Myanmar Investment Law 2016
၂	မြေလွတ်၊မြေလတ်၊မြေရိုင်းများစီမံခန့်ခွဲရေးဥပဒေ ၂၀၁၂	Free Land, Vacant Land, Margin Land Management Law2012
၃	အလုပ်သမာအဖွဲ့.အစည်းဥပဒေ ၂၀၁၁	Labor Organization Law 2011
၄	အလုပ်သမားအငြင်းပွါးမှုဖြေရှင်းရေးဥပဒေ ၂၀၁၂	Settlement of Labour Disputes Law 2012
၅	လူမှုဖူလုံရေးဥပဒေ ၂၀၁၂	Social Security Law 2012
၆	အနဲဆုံးလုပ်ခကြေးငွေဥပဒေ ၂၀၁၃	Minimum Wages Law 2013
၇	အခကြေးငွေပေးချေရေးဥပဒေ ၂၀၁၆	Payment of Wages Law 2016
၈	ခွင့်နှင့်အလုပ်ပိတ်ရက်များဥပဒေ ၁၉၅၁	The Leaves and Holidays Act 1951
၉	စက်ရုံဥပဒေ ၁၉၅၁	Factory Act 1951
၁၀	အလုပ်သမားလျော်ကြေးအက်ဥပဒေ ၁၉၅၁	Workmen Compensation Act 1951
၁၁	ရေနံနှင့်ရေနံထွက်ပစ္စည်းဆိုင်ရာဥပဒေ ၂၀၁၇	Petroleum and Product of Petroleum Law 2017
၁၂	ရေနံနည်းဥပဒေများ၁၉၃၇	Petroleum Rules 1937
၁၃	မော်တော်ယာဉ်ဥပဒေ ၂၀၁၅	The Motor Vehicle Law 2015
၁၄	မော်တော်ယာဉ်နည်းဥပဒေ ၁၉၈၇	The Motor Vehicle Rule 1987
၁၅	ပြည်သူကျန်းမာရေးဥပဒေ၁၉၇၂	Public Health Law 1972
၁၆	ကူးစက်ရောဂါများကာကွယ်နှိမ်နင်းရေးဥပဒေ ၁၉၉၅	Prevention and Control of Communicable Diese Law 1995
၁၇	မြန်မာ့အာမခံလုပ်ငန်းဥပဒေ ၁၉၉၃	The Myanma Insurance Law 1993
၁၈	မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့.ဥပဒေ ၂၀၁၅	Myanmar Fire Force Law 2015
၁၉	ပို့ကုန်သွင်းကုန်ဥပဒေ၊၂၀၁၃	The Export and Import Law 2013
၂၀	အလုပ်အကိုင်နှင့်ကျွမ်းကျင်မှုဖွံ့ဖြိုးတိုးတက်ရေးဥပဒေ၂၀၁၃	Employment and Skill Development Law 2013
၂၁	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ ၂၀၁၂	The Environmental Conservation Law 2012
၂၂	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနည်းဥပဒေ ၂၀၁၄	The Environmantal Conservation Rules 2014
၂၃	ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း ၂၀၁၅	Environmantal Impact Assessment Procedure 2015
၂၄	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု)လမ်းညွှန်ချက်များ ၂၀၁၅	Emission Quality Standards Guideline 2015
၂၅	တိုင်းရင်းသားလူမျိုးများ၏အခွင့်အရေးကာကွယ်စောင့်ရှောက်သည့်ဥပဒေ ၂၀၁၅	The Rights of National Races Law 2015
၂၆	ဧရာဝတီတိုင်းလွှတ်တော်မှပြဋ္ဌာန်းသည့်ဥပဒေများအနက်ဆက်စပ်သည့်ဥပဒေများ၊	All related Laws and Rules enacted by Ayeyarwaddy

	နည်းဥပဒေများ။	Division Region Hluttaw
၂၇	နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှုဥပဒေ (၂၀၁၂)	
၂၈	ကုန်သွယ်ခွန်ဥပဒေ (၁၉၉၀)	
၂၉	သဘာဝဘေးအန္တရာယ်ဆိုင်ရာစီမံခန့်ခွဲမှုဥပဒေ (၂၀၁၃)	
၃၀	အလုပ်ရုံများအက်ဥပဒေ (၁၉၅၁)	
၃၁	ဓာတုပစ္စည်းများအန္တရာယ်မှတားဆီးကာကွယ်ရေးဥပဒေ (၂၀၁၃)	
၃၂	ဘွိုင်လာဥပဒေ (၂၀၁၅)	

Applied Environmental law, regulation and standards

The environmental conservation law is enacted in 2012 by implementing of national policy by setting up of principles and guidelines for sustainable development and conservation of clean environment, natural and cultural heritage for present and future generation. There are 42 paragraphs in 14 sections of law. A person causing a point of source of pollution shall treat, emit, discharge and deposit the substances which cause pollution in the environment in accord with stipulated environmental quality standards is stipulated in paragraph 14. Moreover, paragraph 15 of the law says that the owner or occupier of any business, material or place which caused a point source of pollution shall install or use an on-site facility or controlling equipment in order to monitor, control, manage, reduced or eliminate environmental pollution. If it is impracticable, it shall be arranged to dispose the waste in accord with environmentally sound methods.

The Environmental Conservation Rules were officially announced on 5th June, 2014.

The Environmental Impact Assessment Procedures was enacted in 2015. Under this 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).

The national standard law is enacted July 2014.

The regulation for environment conservation is enacted in June 2014.

Compliance of Laws and Regulation

Institutional Framework

There are 22 ministries under the office of the President of Myanmar. The leading ministries in charge of environmental and social consideration are the Ministry of Natural Resources & Environmental Conservation (MONREC) and the ministry of Social Welfare, Relief and Resettlement (MSWRR). The Environmental Conservation Department is responsible for Environmental Conservation Law, National Environmental Policy, Strategy, Framework, Planning and action plan for the integration of environmental consideration into the national sustainable development process. ECD is also responsible for the conservation and management of Myanmar's natural resources and sustainable utilization, pollution control on water air and land.

Fundamental Laws and Regulations

It is the Citizens Investment Law. The objective of this law is to promote environmentally and socially sustainable economic growth and diversification of the productive sector of the union, providing investors with a set of fundamental and enforceable legal rights and guarantees to ensure that the investors and their investments are protected and treated with transparency, fairness and in strict accordance with the rule of law and accepted international standard and practice. The law also stated in para (3) its objective as "After exploiting abundant rich resources of the country, aiming at the people to enjoy sufficiently and to enable the surplus to export causing to open up of more employment opportunities for the people as the business developed and expand causing to develop human resources causing to develop respective regions including infrastructure, causing to rise economic enterprise and investment business, keeping abreast with the international norms.

Myanmar Investment Law (2016)

Purpose; to ensure the appointing of employees, fulfilling the rights of employees, avoiding any injury to environment, social and cultural heritage, insure the prescribed insurance in line with the above law. This law focuses as follows;

- The project proponent has to lease the land or building owned by government or private with lease agreement and register it by the registration of deeps law under sub- section (a) and (d) of section 50 of said law.
- The project proponent has to appoint the nationalities in the various levels of administrative, technical and expert work by the arrangement to develop their expertise, in line with the sub-section (b) of section51of said law.
- The project proponent has to appoint the nationalities only in normal work without expertise, in line with the sub-section (c) of section51of said law.
- The project proponent has to appoint either foreigner or nationality with the appointment agreement in accord with the law, in line with the sub-section (d) of section51of said law.
- The project proponent has to comply with the international best practices, existing laws, rules and procedures to not damage, pollute, and injure to environment, cultural heritage and social, in line with the sub-section (g) of section65of said law.
- The project proponent has to close the project after paying the compensation to the employees in accord with the existing laws if violates the appointment agreement or terminate, transfer or suspend the investment or reduce the number of employees , in line with the sub-section (i) of section 65 of said law.
- The project proponent has to pay the wages or salary to the employees in accord with the laws, rules, order and procedures in the suspension period, in line with the sub-section (j) of section65of said law.
- The project proponent has to pay the compensation or injured fees to the respected employees or their inheritors if injury in or loss of part of body or death caused by work, in line with the sub-section (k) of section 65of said law.
- The project proponent has to stipulate the foreign employees to respect the culture and custom and abide by the existing laws, rules, orders, directives, in line with the sub-section (l) of section65of said law..
- The project proponent has to abide by labour laws, in line with the sub-section (m) of section65of said law.
- The project proponent has to pay the compensation to the injured person for damages if damages of environment or socio-economy is occurred by misuse of project, in line with the sub-section (o) of section65of said law.
- The project proponent has to allow to inspect in anywhere of project if Myanmar Investment Commission inform to inspect the project, in line with the sub-section (p) of section65of said law..
- The project proponent has to obtain the permission of MIC before EIA process and report back this process to MIC, in line with the sub-section (q) of section 65of said law.

- The project proponent has to insure the prescribed insurance by rules, under section 73 of said law.

Labour Organization Law (2011)

Purpose: To ensure protection the rights of the employees, having the good relationships between the employees and employer and enabling to form and carry out the labour organizations systematically and independently.

- ***Section 17*** - The project owner has to allow the labour organization to negotiate and settle with the employer if the workers are unable to obtain and enjoy the rights of the workers contained in the labour laws and to summit demands to the employer and claim in accord with the relevant law if the agreement cannot be reached.
- ***Section 18*** - The project proponent has to allow the demand for the re-appointment of worker who is dismissed by the employer without the conformity with the labour laws.
- ***Section 19*** - The project proponent has to send the representatives to the Conciliation Body in settling a dispute between the employer and the worker.
- ***Section 20*** - The project proponent has to allow the labour organization to participate and discuss in discussing with the government, the employer and the complaining employees in respect of employee's rights or interest contained in the labour laws.
- ***Section 21*** - The project proponent has to allow the labour organization to participate in solving the collective bargains of the employees in accord with the labour laws.

- ***Section 22*** - The project proponent has to allow the labour organization to carry out the holding the meetings, going on strike and other collective activities in line with the procedure, regulation ,by-law and directive of relevant Chief Labour Organization .

The Settlement of Labour Dispute Law,2012

Purpose: To ensure negotiation and discussion between employees and project proponent, abiding the decision of Tribunal. This law focuses as follows;

- The project proponent has to not absent to negotiation within the stipulated time for complaint, under section 38 of said law.
- The project proponent has to not change the existing stipulations for employees within conducting period before Tribunal, under section 39 of said law.
- The project proponent has to not close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal, under section 40 of said law.
- The project proponent has to pay the compensation decided by Tribunal if violates any act or any omission to damage the interest of labour by reducing of product without efficient cause, under section 51 of said Law.

Social Security Law

Purpose: The project proponent has to create the social security for the employees because the project is the business under the Myanmar Citizen Investment Law. To ensure the social security for employees of the project, the project owner has to register to the social security offices and to pay the prescribed fund. The law focuses as follows;

- The project proponent has to register to the respected social security office, under sub-section (a) of section 11 of said law
- The project proponent has to pay the social security fund for at least four types of social security included in sub-section (a) of section 15, under section 15 of said law.
- The project proponent has to pay the fund which has to be paid myself and together with the fund which has to be paid from their salary by the employees .Moreover the project owner will pay the cost for paying the above mentioned fund only myself under sub-section (b) of section 18 of said law.
- The project proponent has to pay the fund for accidence, under sub-section (b) of section 48 of said law. (but this fund is not related to workmen compensation)
- The project proponent has to make correctly and submit the list and record provided in section 75 to respected social security office, under section 75 of said law.

The Minimum Wages Law 2013

Purpose: To ensure the project owner pay the wages not less than prescribed wages and notify obviously this wages in work place, moreover to be inspected. This law focuses as follows;

- The project proponent has to pay the wages in line with section 12 of said law.
- The project proponent has to notify the prescribed wages obviously in work place, under sub-section (a) of section 13 of said law.
- The project proponent has to correctly record the lists, schedules, documents and wages and report these to the relevant department and give if these are asked while inspecting, in accord with the stipulations, under sub-section (b)(c)(d) of section13 of said law.
- The project proponent has to allow to be inspected by the inspector, under sub-section (d) and (e) of section 13 and section 18 of said law.
- The project proponent has to allow holiday for medical treatment if the employee' health is not fit to work, under sub-section (f) of section 13 of said law.
- The project proponent has to allow holidays without deducting from the wages if one of parents or one of family dies, under sub-section (g) of section 13 of said law.

Payment of Wages Law 2016

Purpose; To ensure the way of payment and avoiding delay payment to the employees. This law focuses as follows;

- The project proponent has to pay the wages in accord with the section 3 and 4 of said law, under section 3 & 4 of said law.
- The project proponent has to submit with the agreements of employees & reasonable ground to department if it is difficult to pay because of force majeure included in natural disaster, under section 5 of said law.

- The project proponent has to abide by the provisions of section 7 to 13 in chapter (3) in respect of deduction from wages.
- The project proponent has to pay the overtime fees, prescribed by law, to the employees who work over working hours, under section 14 of said law.

The Leaves and Holiday Act (1951)

Purpose: The employees can take the leaves and get the holidays legally and to ensure the right to get the holidays and leaves. This law focuses the following ;

The project proponent has to allow the leaves and holidays in line with the law.

Workmen's Compensation Act (1923)

Purpose: To ensure the compensations to injured employee while implementing in line with the above law. To pay the prescribed compensations in various kinds of injury. This law focuses as follow;

Section 13 The project proponent has to pay the compensation in line with the provisions of said law base on kind of injury and case by case.

Petroleum and Product of Petroleum Law (2016)

Purpose: The project will carry the oil in any phase and may import it. So, to ensure to take the license for importation and storage and abide by the stipulations in the license.

- The project proponent has to obtain the license, for importation of the fuel, issued by the Ministry of Commerce and Trade under sub-section (a) of section 7 of said law and abide by the stipulations in the license.
- The project proponent has to abide by the procedure and conditions, which to be safe in transportation and storage, prescribed by the Ministry of Commerce and Trade under sub-section (c) of section 7 of said law.
- The project proponent has to obtain the license for transportation and storage of the fuel under sub-section (a) of section 8 of said law and abide by the stipulations in the license.
- The project proponent has to abide by the procedure and conditions, which to be safe in transportation and storage, prescribed by the Ministry of Electricity and Energy under sub-section (d) of section 8 of said law.
- The project proponent has to transport the fuel by the vehicle or vessel which is licensed by the Ministry of Transportation and Communication under sub-section (a) of section 9 of said law.
- The project proponent has to store the fuel in the tank which is licensed by the Ministry of Natural Resource and Environmental Conservation under sub-section (a) of section 10 of said law.
- The project proponent has to show the notice of danger on the tank or container of fuel under section 11 of said law.

The Petroleum Rules (1937)

Purpose; To ensure the project owner has to abide by the stipulations for transportation of oil.

- The project proponent will abide by the provision of chapter (3) of the Petroleum Rules for transportation and the provisions of chapter (4) of said rules for storage.

The Motor Vehicles law (2015) and Rules (1987)

Purpose: When the construction period and if it is needed in operation and production period for the all vehicles.

The project proponent has to promise to abide by the nearly all provisions of said law and rules, especially the provisions related to air pollution, noise pollution and life safety.

The Public Health Law (1972)

Purpose: To ensure the public health include not only employees but also resident people and cooperation with the authorized person or organization of health department. This law focuses as follows;

- The project owner will cooperate with the authorized person or organization in line with the section 3 and 5 of said law.
- ***Section 3*** - The project proponent has to abide by any instruction or stipulation for public health.
- ***Section 5*** - The project proponent has to allow any inspection, anytime, anywhere if it is needed

Prevention and Control of Communicable Diseases Law (1995)

Purpose: To ensure the healthy work environment and prevention the communicable diseases by the cooperation with the relevant health department. This law focuses as follows;

- The project proponent has to built the housing in line with the health standards, distribute the healthful drinking water & using water and arrange to systematically discharge the garbage & sewage, under clause (9) of sub-section (a) of section 3 of said law.
- The project proponent has to abide by any instruction or stipulation by Department of health and Ministry of Health, under section 4 of said law.
- The project proponent has to inform promptly to the nearest health department or hospital if the following are occurred: (section 9)
  (a) Mass death of animals included in birds or chicken;
  (b) Mass death of mouse;
  (c) Suspense of occurring of communicable disease or occurring of communicable disease;
  (d) Occurring of communicable disease which must be informed.
- The project proponent has to allow any inspection, anytime, anywhere if it is need to inspect by health officer, under section 11 of said law.

The Myanma Insurance Law

Purpose: The project can cause the damages to the environment and injuries to public so to ensure the needed insurances are insured at Myanma Insurance. This law focuses the following matters;

Section 15 - If the project proponent uses the owned vehicles the project owner has to insure the insurance for injured person.

Section 16 The project proponent has to insure the insurance to compensate for general damages because the project may cause the damages to the environment and injury to public.

The Myanmar Fire Force Law (2015)

Purpose: To ensure to prevent the fire, to provide the precautionary material and apparatuses, if the fire caused in the project area to be defeated because the project is business in which electricity and any inflammable materials such as petroleum are used. So, the project owner has to institute the specific fire service in line with the above law. This law focuses the following

- The project proponent has to institute the specific fire services, under sub-section (a) of section 25 of said law.
- The project owner has to provide materials and apparatuses for fire precaution and prevention, under Sub-section (b) of section 25 of said law .

The Export and Import Law

Purpose; To ensure the to abide by the conditions included in permit if it is needed to import the material for project and export products from the project. This law focuses as follow;

- The project proponent has to abide by the conditions included in permit, under section 7 of said law.

Payment of Wages Law 2016

Purpose; To ensure the way of payment and avoiding delay payment to the employees. This law focuses as follows;

- The project proponent has to pay the wages in accord with the section 3 and 4 of said law, under section 3 & 4 of said law.
- The project proponent has to submit with the agreements of employees & reasonable ground to department if it is difficult to pay because of force majeure included in natural disaster, under section 5 of said law.
- The project proponent has to abide by the provisions of section 7 to 13 in chapter (3) in respect of deduction from wages.
- The project proponent has to pay the overtime fees, prescribed by law, to the employees who work over working hours, under section 14 of said law.

Employment and Skill Development Law (2013)

Purpose: To ensure the job security and to develop the employee's skill with the fund of project owner. This law focuses as follows;

- The project proponent has to appoint employees with the contract in line with the provision of section 5 of said law.
- The project proponent has to carry out the training programs with the policy of Skill Development Body to develop the employment skill of employees who is appointed or will be appointed, under section 14 of said law.
- The project proponent has to monthly pay to the fund, which is fund for development of skill of employees, not less below 0.5 percentage of the total payment to the level of worker supervisor and the workers below such level, under sub-section (a) of section 30 of said law.
- The project proponent has to deduct from the payment of employees for above mentioned fund, under sub-section (b) of section 30 of said law.

Protection of Wildlife and Conservation of Natural Areas Law(1994)

This law is under Jurisdiction of the Ministry of Natural Resources & Environmental Conservation.

It is lacking in actual numerical criterion to protect the natural environment.

Environmental Conservation Law(2012)

The environmental law was enacted on 30th March 2012 prepared by MONREC. This environmental conservation law contains 14 chapters that define the rights and responsibilities of MONREC, environmental standards, environmental conservation, management in urban areas, conservation of natural and cultural resources, process for businesses to apply permission to engage in enterprise that has the potential to damage the environment, prohibitions, offenses and punishments. The article 16 in the law stipulates responsibility of business owner of industrial estate or business in the special economic zone on environmental conservation. Besides its rules as detailed enforcement regulations for ECL was got through parliament in July2013 and going to be issued. ECRs stipulates basic policy and concept on EIA application of the development of Projects (Article 55)

Default Environmental and Social Considerations

The project proponent set default environmental and social considerations based on the project components.

To install septic tank to treat wastewater from construction camp
To make workers secure a commitment to install pre-treatment facilities for neutralization, oil separation, removal of toxic and heavy metals.,etc.

Quantitative Target Levels for Consideration of Surrounding Environment

The Environmental Conservation Rules (2014)

- The project proponent has to avoid emit, discharge or dispose the materials which can pollute to environment, or hazardous waste or hazardous material prescribed by notification in the place where directly or indirectly injure to public under sub- rule (a) of rule 68.
- The project proponent has to avoid performing to damage to ecosystem and the environment generated by said ecosystem under sub-rule (b) of rule 68.

Environment Impact Assessment Procedure (2015)

- The project proponent has to be liable for all adverse impacts caused by doing or omitting of project owner or contractor, sub-contractor, officer, employee, representative or consultant who is appointed or hired to perform on behalf of project owner, under sub-paragraph (a) of paragraph 102.
- The project proponent has to support, after consultation with effected persons by project, relevant government organization, government department and other related persons, to resettlement and rehabilitation for livelihood until the effected persons by the project receiving the stable socio-economy which is not lower than the status in pre-project, under sub-paragraph (b) of paragraph 102.
- The project proponent has to fully implement all commitments of project and conditions included in EMP. Moreover the project proponent has to be liable for contractor and sub-contractor who perform on behalf of

him/her have to fully abide by the relevant laws, rules, this procedure, EMP and all conditions, under paragraph 103.

- The project proponent has to be liable and fully & effectively implement all requirements included in ECC, relevant laws and rules, this procedure and standards under rule 104.
- The project proponent has to inform the completed information, after specifying the adverse impacts caused by the project, from time to time, under paragraph 105.
- The project proponent has to continuously monitor all adverse impacts in the pre-construction phrase, construction phrase, operation phrase, suspension phrase, closure phrase and post-closure phrase, moreover has to implement the EMP with abiding the all conditions included in ECC, relevant laws & rules and this procedure, under paragraph 106.
- The project proponent has to submit, as soon as possible, the failures of his or her responsibility, other implementation, ECC or EMP. If dangerous impact caused by this failure or failure should be known by the Ministry the project proponent has to submit within 24 hours and other than this situation has to submit within 7 days from knowing it, under paragraph 107.
- The project proponent has to submit the monitoring report dually or prescribed time by Ministry in line with the schedule of EMP, under paragraph 108.
- The project proponent has to prepare the monitoring report in accord with the rule 109.
- The project proponent has to show this monitoring report in public place such as library, hall and website and office of project for the purpose to know this report by public within 10 days from the date which the report is submitted to the Ministry. Moreover has to give the copy of this report, by email or other way which way agreed with the asked person, to any asked person or organization, under paragraph 110.
- The project proponent has to allow inspector to enter and inspect in working time and if it is needed by Ministry has to allow inspector to enter and inspect in the office and work-place of project and other work-place related to this project in any time, under paragraph 113.
- The project proponent has to allow inspector to immediately enter and inspect in any time if it is emergency or failure to implement the requirements related to social or environment or caused to it, under paragraph 115.
- The project proponent has to allow inspector to inspect the contractor and sub-contractor who implement on behalf of project, under paragraph 117.

The Foreign Investment Law (2012)

- Abiding by the existing laws of the Republic of the Union of Myanmar under section 17(a) of said law.
- The project proponent has to caring out not to cause environmental pollution or demage in accord with existing laws in respect of investment business under section 17 (h) of said law.

The Commercial Tax Law (1990)

- The project proponent has to abide by the registering with the relavent township revenue officer as good production enterprises, under section 11 of said law.
- The project proponent has to abide by furnishing annual return within three months after the end of the relevant year to the township revenue officer with taxable proceed of sale or receipt from service in a year, under section 13(a) of said law.

The Disaster Management Law (2013)

- The project proponent has to abide by the conditions included appointing natural disaster management team and shall undertake the following function, under section 13 of said law.
  (1) Preparatory and preventive measures for natural disaster risk reduction in pre-disaster period
  (2) Emergency responsed including search and rescue during natural disaster.
  (3) Rehabilitation and rexonstruction activities for improving better livine standard in post disaster period and conservation of the environment that has been affected by natural disaster.

The Factory Act (1951)

- The project proponent has to abide providing factory clean and free from offensive odor such as from toilet, under section 13 of said law.
- The project proponent has to abide manage without environmental impact while clearing waste, dust and waste water, under section 14 of said law.

- The project proponent has to abide providing factory with clean air ciulation and to keep affordable room temperature, under section 15 of said law.
- The project proponent has to abide providing enough toilets, under section 21 of said law.

The Boiler Law (2015)

- The project proponent (the owner of boiler) has to apply necessary permit for boiler use, under section 12 of said law.
- The project proponent (the owner of boiler) has to apply for renewal of boiler use, under section 13 of said law.
- The project proponent (the owner of boiler) shall inform immediately to the inspector if any accident occurs, under section 18 of said law.

Environmental Quality Standards and Guidelines 2015

- The project proponent has to emit, discharge or dispose in line with the standards stipulated in said guideline.

National Environmental Quality (Emission) Guide lines (NEQG)for waste water, noise level and environmental monitoring parameters are referenced in this EMP report .

The standards and guidelines of following environmental qualities will be set by the ministry as part of the environmental conservation law.

Standard quality of water related to the use of inland water available to public places, dams, ponds, swamps, flooded land, channel, creeks and rivers.
Standard quality of water at coastal regions and delta area
Standard quality of ground water
Standard quality of air
Standard of noise and vibration
Standard of odor and emission gas
Standard of wastewater
Standard of soil and leachate from solid waste

Due to unavailability of some of these standards, the project proponent set qualitative target levels on waste, noise and vibration which may cause adverse impact to surrounding environment.

Effluent Water Quality

Industrial Wastewater Effluent Guideline Value
Target level of Effluent Water Quality in the Project

Table (6) **Effluent Levels (Manufacturing)(Garment, Textile and Leather Products)**

Parameter	Unit	Guideline Value
5 day Biochemical oxygen demand	mg/l	30
Absorbable organic halogens	mg/l	1
Ammonia	mg/l	10
Cadumm	mg/l	0.02
Chemical oxygen demand	mg/l	160
Cromium (hexavalent)	mg/l	0.1
Cromium (Total)	mg/l	0.5
Cobalt	mg/l	0.5
Color	m^{-1}	7(436nm[a],yellow) 5(525nm, red) 3(620nm,blue)

Copper	mg/l	0.5
Nickel	mg/l	0.5
Oil and grease	mg/l	10
Pesticides	mg/l	0.05-0.10[b]
pH	S.U[a]	6-9
Phenol	mg/l	0.5
Sulfide	mg/l	1
Temperature increase	C°	<3[b]
Total coliform baterial	100ml	400
Total nitrogen	mg/l	10
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

[a] Nanometers
[b] 0.05 mg/l for total pesticides (organophosphorus pesticides excluded) ; 0.10 mg/l for organophosphorus pesticides
[c] Standard Unit
[d] At the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity; when the zone is not defined, use 100 meters from the point of discharge

Noise

Construction Phase
The noise standard of construction activities to receptors in Myanmar would be as followings.
Noise prevention and mitigation measures should be applied where predicted or measured noise impacts from a project facility or operations exceed the applicable noise level guideline at the most sensitive point of reception. Noise impacts should not exceed the levels presented below or result in a maximum increase in back ground levels of 3dBA at the nearest receptor location off-site.

Table (7) Noise Standards

Receptor	One Hour L_{Aeq} (dBA)	
	Day Time 07:00~22:00	Nigh time 22:00~07:00
Residential, institutional, educational	55	45
Industrial, Commercial	70	70

Operation Phase

Same as above

Vibration

Construction Phase
There is no vibration standard of construction activity to receptors in Myanmar as well as south East Asia and International Organizations such as WHO and IFC.

Operation Phase
There is no vibration standard to receptor near factories in Myanmar as well as South East Asia and International Organization such as WHO and IFC.

The structure and elements in this report not only conform to MONREC's ECC but also to ISO14001. The following table shows the areas where the merit of achieving ISO14001.

Comparative Assessment of EMP & ISO14001

Element of EMP	Requirement under ISO14001	Conforming Remarks
Policy	Commitment to pollution prevention	Yes
	Complience with legislation	Yes
	Providing framework for objective and targets	Yes
	Documented and communication to all employees including publicly available	Yes

It could be divited the impact into 2 parts as following.

A. The temporary affect by the impacts during pre construction and during construction.
B. The impacts caused during the operation stage

A. The temporary affect by the impacts during pre construction and during construction.

The following are the major factors to the dust pollution and noise pollution

- Supporting trucks and vehicles moving around these areas.
- Construction machineries and pile driving
- Wind blowing effect to the dust
- Loading and unloading process by bulldozer, excavator and dump trucks

Both Pre Construction and During Construction stages, the vibration and noise impacts could caused by moving vehicles and construction machineries. The worst noise impact would come from diesel power generator and pile driving process and the loude communication between workers.

However, the construction of factory buildings are completed which could already overcome these noice impacts and vibration.

B. The impacts caused during the operation stage

The following are the causes of impacts during project implementation.

1) Air polution
2) Noise & Vibration
3) Solid waste and waste water
4) Impact to the livelihood
5) Employment Opportunities

(1)Air Polution

The potential air pollution would be expected both inside and outside of factory.
Eventhough the project is in the operating stage, there are no base line data recorded how much dust particles in the air and how much polluted in this area both inside factory and due to the vehicles passing.

The spraying process is one the potential impact sources in this factory as shown below.



The wood fired boiler is also one of the main sources of air pollution.



There would be some impacts to the surrounding air because of diesel generator when it is electricity blackout.

The emission from wood fired boiler.

Assessment Results

Observations		Date	Parameters									
			PM_{10}	CO	CO2	SO2	NO	NOx	O2	HCHO	VOC	Lead
			µg/m³	mg/m³	%	mg/m³	mg/m³	mg/m³	%	mg/m³	mg/m³	mg/m³
Run-01	01	24/9/19	8	321	-	0.1	-	7	-	0.13	0.26	-
	02	24/9/19	13	320	-	0.1	-	7	-	0.1	0.31	-
	03	24/9/19	60	317	-	0.1	-	6	-	0.14	0.25	-
Run-02	01	24/9/19	58	325	-	0.1	-	9	-	0.13	0.25	-
	02	24/9/19	15	310	-	0.1	-	7	-	0.13	0.26	-
	03	24/9/19	15	295	-	0.1	-	9	-	0.13	0.22	-
Run-03	01	24/9/19	50	320	-	0.1	-	7	-	0.13	0.21	-
	02	24/9/19	25	320	-	0.1	-	6	-	0.13	0.24	-
	03	24/9/19	15	317	-	0.1	-	8	-	0.11	0.23	-
Average				316.1		0.1		7.3		0.125	0.247	

Reference Standards

Parameters	PM_{10}	CO	CO2	SO2	NOx
Units	µg/m³	mg/m³	mg/m³	mg/m³	mg/m³
World Bank/IFC Standard (International)	-(Gas) 50(Liquid)	-	-	- (Gas) 2000(Liquid)	320(Gas) 460(Liquid)
EQEG	20 (1 Yr) 50 (24 Hr)	-	-	20(24hr) 500 (10 min) 2000*(biomass)	40 (1 Yr) 200 (1 hr)

*Small Combustion facilities Emission Guidelines Value

(The detailed result would be seen on annex.)

There are bio waste from the dinning area and toilets.

(2) Noise & Vibration
There are some noises from the sewing machines, air compressor, ventilation fans and electric generator. However, no Impact would caused as cylencer installed to engine exhaust but could not avoid for small Impact when the generator run during electricity blackout.

(3) Solid Waste and Waste Water
There are cutted waste, all solid waste and ash waste from wood fired boiler.



There are waste water from the washing process. (Pls find lab test result in annex)



(4) Impact to the livelihood
No impact potential by this project on loss of livelihood

Flaura and Fauna
There is no record for fauna in this factory area of 6.73 Acres as it is designated the industrial zone for the factory building, not for residential and business area, except sparrows, crows, pigeons, dogs, cats, mouses, cocroachs, mosquitoes, flys etc, which are close to human.

(5) Employment Opportunity
There would be 900 jobs available by this project for locals. The positive Impact caused to the livelihood by this project as creating jobs not only to the local people but throughout the country.

The summary of potential impacts is mentioned as following.

4 degree on impacts are as shown.

A- Significant Negative Imapact
A+ Significatn Positive Impact
B- Small Impact
B+ Moderate Postive Impact
C- Needed more clarification
D- Less or No Impacts and no further assessments needed

Table (8) The Summary of Impacts

Category	Scoping Item	Scoping Results		Assessment Result		Reason for Assessment
		Before/During Construction (BC/DC)	Operation Stage(OS)	Before/During Construction (BC/DC)	Operation Stage(OS)	
Pollution	Air Quality	-	B-	-	B-	OS:Some Dust from the operating stage in the tearing section and spraying section. There would be some impacts to the surrounding air because of diesel fuel fired boiler and diesel generator when it is electricity blackout. The emission from the wood fired boiler.
	Water Quality	-	D	-	D	OS: No Impact as nothing influence to the water
	Solid Waste	-	D	-	D	OS:The cutted waste and all solid waste should be systematically collected and applied to 3R system to reduce impact.
	Waste Water	-	B-	-	B-	OS: It would be impact by waste water generated from washing process
	Soil Contamination	-	B-	-	B-	OS: Potential Impact by untreated waste water
	Noise and Vibration	-	B-	-	B-	OS: No Impact as installed the cylencer installed exhaust but could not avoid for small Impact when electricity blackout
	Ground Subsidence	-	B-	-	B-	OS: No Ground Subsidence Impact
	Offensive Odor	-	D	-	D	OS: No Oddor Impact by this project.
	Bottom Sediment	-	D	-	D	OS: No Impact as no waste to the river
Environment	Protected Area	-	D	-	D	OS: No Protected or Reserved Forest is nearby.
	Flaura/Fauna and Ecosystem	-	C	-	C	OS: No Impact to Flauna & Fauna as the area is in the industrial zone with no record to this area and eco system.
	Hydrology	-	D	-	D	OS: No Hydrology Impact
	Topography and geology	-	D	-	D	OS: No Impact to the topography and geology
Social Environment	In voluntary Resettlement	-	D	-	D	OS: No Resettlement is needed to this project. No occupants are found as it is in the industrial zone.
	Misdistribution of benefit and damage	-	C	-	C	
	Local conflit of interests	-	D	-	D	
	Gender	-	D	-	D	
	Children's Right	-	D	-	D	
	Ethnic minorities and indigenous peoples	-	D	-	D	
	Poor	-	A+	-	A+	OS: It causes positive impact as this project could create employment and help the poverty reduction.
	Living and livelihood	-	A+	-	A+	OS: The positive Impact at livelihood by this project as creating jobs to the local people.
	Existing social infrastructures and services	-	B+	-	B+	OS: Positive Impacts are expected to the local people

	Water Usage	-	D	-	D	OS: No Impact to the water usage
	Cultural heritage	-	C	-	B+	OS: There are no heritage sites near the project site but it could be positive impact to maintain the other cultural heritage as people are more interest to donate to such activities or raising funds while their livelihood are better than before.
	Landscape	-	C	-	B+	OS: No Impact as the factory is fully occupied. However, it could be positive impact if the land is reserved for greening area by planting trees.
	Risks for infectious disease such as AIDS/HIV	-	B-	-	B-	OS: As the numbers of workers are increasing, there are higher risks for infectious disease if the prevention or right management could not be in place.
	Working conditions (including occupational safety)	-	B-	-	B-	BC/DC: OS: Occupational Safety is the most important to be applied to the woring conditions at each and every stages of project.
Other	Accident	-	B-	-	B-	BC/DC: OS: The causion and prevention are always needed to be alarted as the accident could happen every stages Impact, not only to the industry compound but including vehicle and traffic accident
	Global Warming	-	B-	-	B-	OS: It could be Impact to the global warming from the waste disposal to the vehicle moving around.

The environmental and social impact assessment was conducted according to the scoping matrix below and examined.

Methodology for impact assessment

Impact Significances

Magnitude of Impact	Resource/Receptor Sensitivity		
	Low	Medium	High
Negligible	Negligible	Negligible	Negligible
Small	Negligible	Minor	Moderate
Medium	Minor	Moderate	Major
Large	Moderate	Major	Major

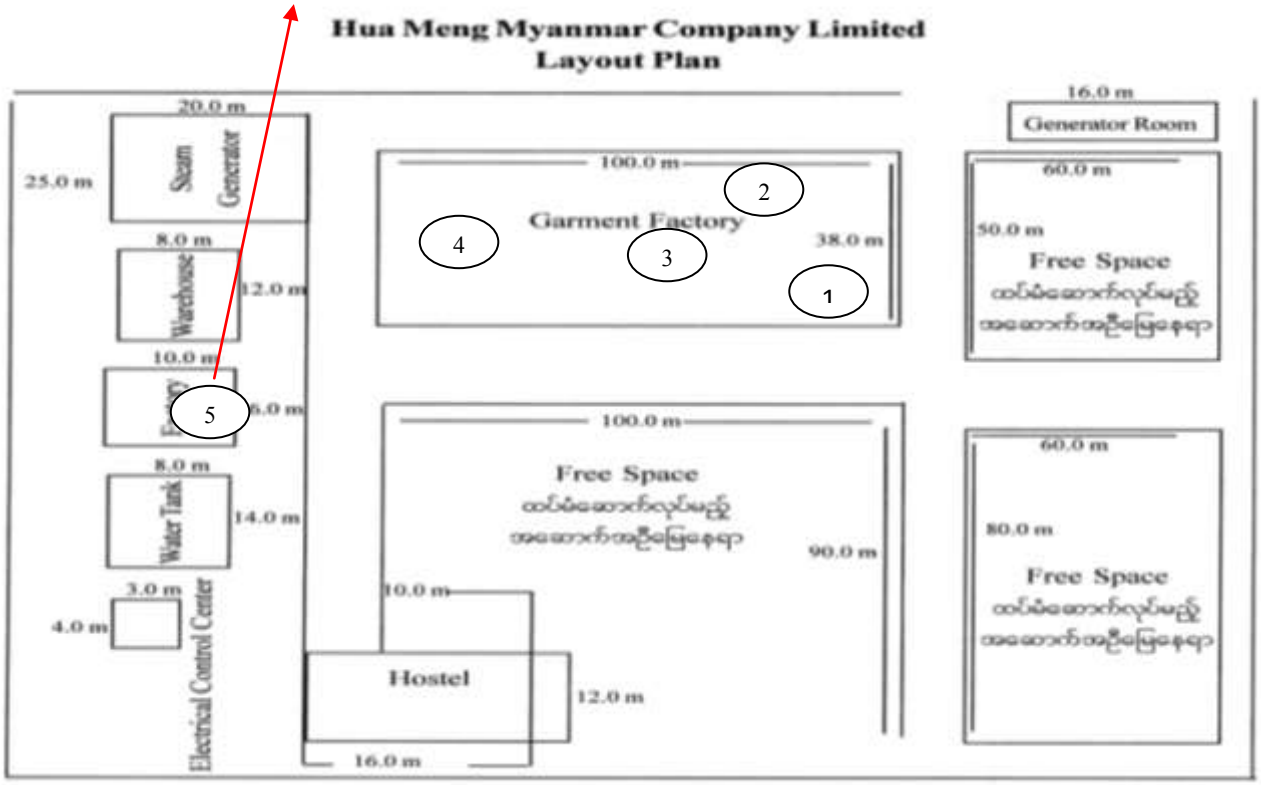
Impact	Implication
Noise	
Waste Water	
Soil Contamination	
Water Pollution	

Table (9) The Summary of Impacts & Ratings

Impact	Rating Significance
1. Impact on Air environment (Pollution)	Low (outside) High (inside)
2. Impact on Natural Environment (Water Resources)	High (w/o treatment system Low (With treatment system
3. Impact on Noise and Vibration	Low-Medium (w/o Generator Running) High (with Generator Running)
4. Impact on Land Environment (Soil contamination, Ground Subsidence)	Low (Construction Period)

5. Impact on Biodiversity	Low
6. Impact on Community Safety and Health	Low but A+
7. Impact on Job Opportunity	High A+
8. Impact on Occupational Safety and Health	Low but A+
9. Restriction of Access	-
10. Economic Displacement of local Agriculturists	-
11. General Economic Development	High A+
12. Better Transportation	High A+

As it is measured high pollution inside the factory (Tearing section) and cutting section, the management should provide better ventilation system.



Description of Planned Mitigation Measures

The mitigation is the key objective of the environmental management plan including the identification and the predicting of these impacts and closely monitoring. It is covered not only for the pre, during and after construction period but also the daily operation. However, some of the impacts during construction period are unavoidable but should try to find the way of mitigation and options as it was mentioned in this report.

It is to evaluate what mitigation and enhancement measures are warranted. The following mitigation hierarchy has been adopted.

- Avoid at Source; (e.g., avoiding by sitting or re-routing activity away from sensitive areas or reducing by restricting the working area or changing the time of the activity.)
- Abate on Site; (.g., pollution control equipment)
- Abate on Receptor; (e.g., fencing to prevent animals straying onto the site.)
- Repair or Remedy; some impacts involve unavoidable damage to a resource and those impacts can be addressed through repair, restoration or reinstatement measures. (e.g., agricultural land and forestry due to creating access work camps or materials storage areas)
- Compensate in Kind or through other means; (e.g., planting to replace damaged vegetation, financial compensation for damaged crops or providing community facilities for loss of fisheries access, recreation and amenity space.)

The priority in mitigation is to first apply mitigation measures to the source of impact and then to address the resultant effect to the resource/receptor via abatement or compensatory measures or offsets.

Table (10) Overview of Pollution Reduction Options

Source	Machine	Type of Option	Reduction Option	Compound Reduction
Power Generation	Diesel Generator	Combustion	Air enrichment (30%O2)	CO2,CO,NOx and NMVOC
			Oxy fuel firing	CO2,CO, NO and NMVOC
			Solar PV Panel	CO2,CO, NO and NMVOC

Here is the management plan of impacts identified during operation phase is as below.

Environmental Impact and Recommendation

Eventhough, there are temporary impact and long term impacts caused by this project and its normal operation, there are some mitigation to these impact but not eliminated. The following shows the mitigation measures.

The impacts should be expected as following;

1) Air Quality
2) Noise & Vibration
3) Solid waste and waste water
4) Impact to the livelihood
5) Employment Opportunities

The Anticipated Environmental Impact and Mitigation Measures,

The Environmental and social consideration measures taken in the course of project implementation were examined based on the findings obtained through the environmental and social impact assessment.

The following are the causes of impacts by this project and it could mitigate as following.

Air Quality - Dust Management Plan

The following are the major factors to the dust pollution and noise pollution

- Supporting trucks and vehicles moving around these areas.
- Construction machineries and pile driving
- Wind blowing effect to the dust
- Loading and unloading process by bulldozer, excavator and dump trucks

Eventhough the project is in the operating stage, there are no base line data recorded how much dust particles in the air and how much polluted in this area both inside factory and due to the vehicles passing.

To mitigate these impacts, it is needed to install good ventilation system inside factory especially the cutting and tearing section and control the speed of vehicles and partition to the loading and unloading area.

The wood fired boiler is also one of the main sources of air pollution.

Noise & Vibration Management Plan

As the major cause of noise comes from vehicles, construction machineries and communication among workers, it could be controlled by good management by the work charge or the team leader.
During operation period, there will be noise coming from sewing machines and others accessory in the factory. Eventhough, the electricity supply would be taken from the grid, the diesel generator would be running for black out time and could noise which is unavoidable. To mitigate the noise from the generator set, it could be installed in sound prove housing and install exhaust cylenser which could be very much useful to avoid noise impact. It should be priotize to work in day time just as much as possible and try to avoid working not later than 8pm.

The following table is shown the acceptance noise levels at day and night times at different location.

Noise Level Guidelines		
	One Hour L_{Aeq} (dBA)	
Receptor	Day time 07:00 – 22:00	Night time 22:00 – 07:00
Residential; Institutional; Educational	55	45
Industrial: Commercial	70	70

The worst noise impact would come from diesel power generator and pile driving process and the loud communication between workers. To reduce these impacts, it could control by making partition at loading unloading area and manage the working hours or vehicle rerouting.

The following pictures show the good practice of installing the diesel generator set with proper layout and cylencer to reduce noise.

In addition, the ear plug that prevent the noise impact should also be provided to all workers who are assigned to work near by these generator set for long period.

Solid Waste and Waste Water Management Plan

All these stages of project implementation, washing, toilet, and kitchen are the key areas that could smart control on water usage pattern, so that it could developed on mitigation process by control the amount of water used.

The nature of project is just making garments and there is no dying process which could be harmful to the environment. The following are the waste water that would comes from normal operation and process.

a) Waste water from kitchen, Shower and Toilets
b) Waste water from the washing process
c) Solid and Cutted waste from the cutting section of the products and Ash from Boiler

It could be treated these waste as following,

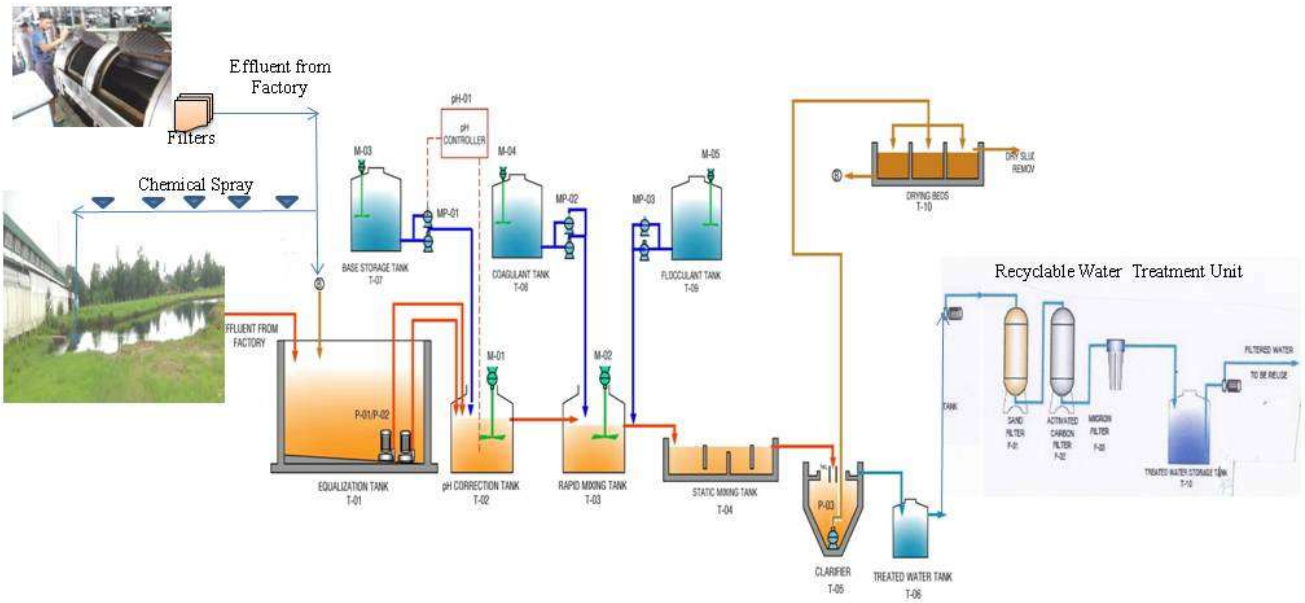
(1)Solid Waste from the factory	Used as fuel at boiler starting and used as fertilizer
(2)Waste from Toilet	Conventional Septic Tank with bleach dosing chamber
(3)Waste from Kitchen	Remove oil & grease through Grease Trap before drainage
(4)Laundry Waste	Natural soak pit according to WHO recommendation

Among of them, the septic tank would be installed to this project.

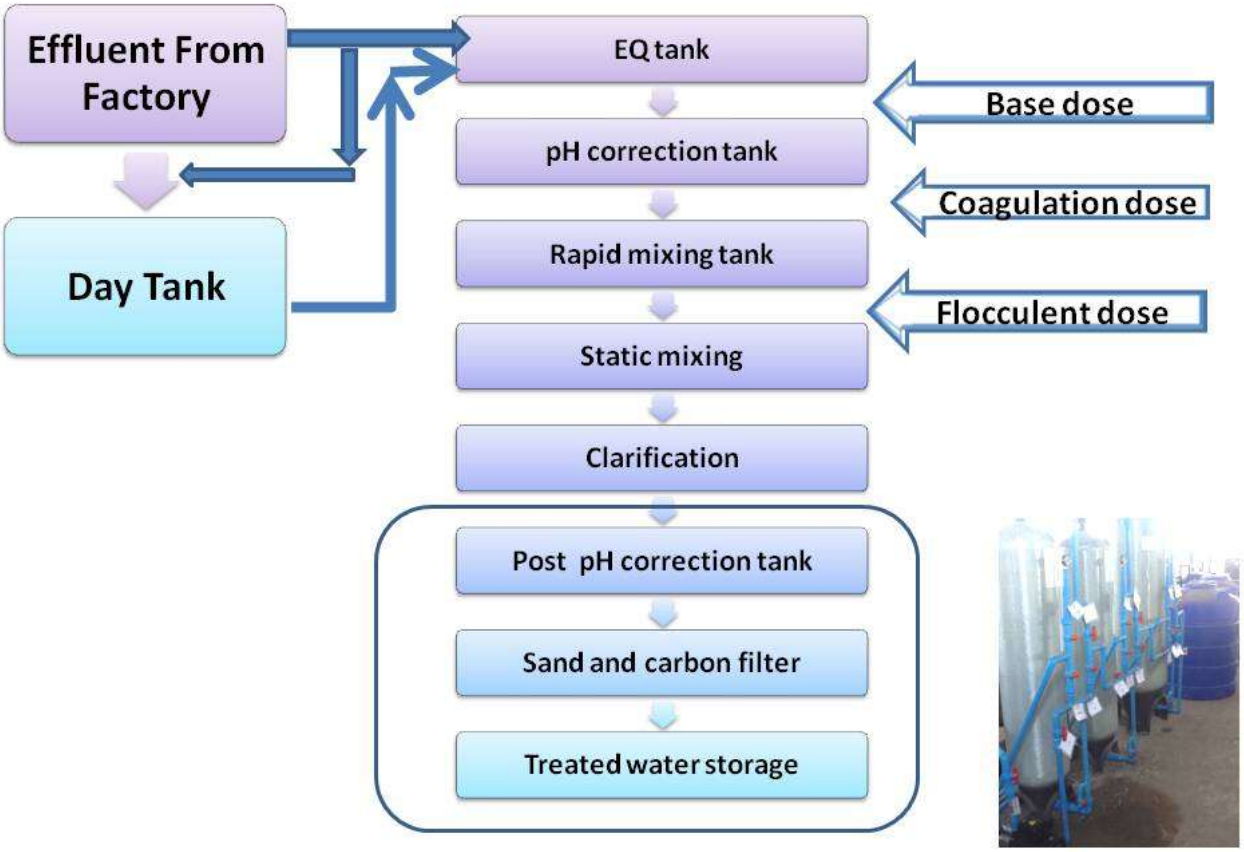
Treated water would be discharged by contacting City Development Committee's waste and cleansing department or other service company when the waste water tank is full.

For industrial waste water from washing process, cleansing process are treated at the waste water treatment plant as shown below.

Waste Water Treatment Plant Flow Diagram



Waste Water Treatment Plant Flow Diagram



This waste water treatment plant has the treatment system from waste water to recyclable water as shown on the flow chart mentioned above.

The height of the chimney is about 50ft and the emissioning and comparasim with NEQEG is as shown below.

	Receptor	NEQEG	Assessment
Particulated Matter (µg/m^3)	Pm2.5 (24 hr)	25	
	Pm10 (24hr)	50	
Nitrogen Oxide (µg/m^3)	(1 year)	40	
	(1hr)	200	
Sulfur Dioxide (µg/m^3)	(24 hr)	20	
	(10 minute)	500	

Solid Wastes

The solid and other waste such as paper, can, bottle including kitchen waste should all be collected and stored systematically with bag before the service company come and collect.

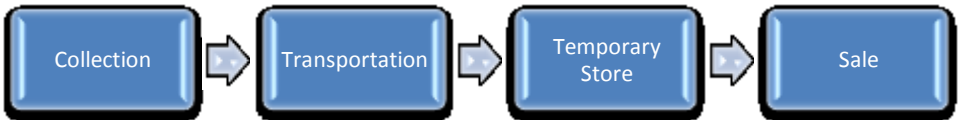
Pls find the picture as following. The company has assigned workers to collect waste and woul be instructed to store waste better than shown herewith.

It could be avoided the impact by these wastes. Furthermore 3R (Reduce, Reuse and Recycle)system should be applied as much as possible. That could definitely help the mitigation of impact to the environment. It is very much important at the layout design that could not only reduce waste but also increasing the products. The amount of waste estimated as following.

(1)solid waste	20 Kg per day	(sold to recycle company by lot)
(2)Waste water	100tons per day	(treated by waste water treatment plant)

It would be contacted to city development committee for occationaly such as septic tank is fulled and when hazardous waste is present.

The flow chart of the solid waste



Ash (Waste from wood fired boiler)

Ash are collected systematically and kept until reached to the ambient temperature. Due to the small amount of ash collected daily, it is not a problem which could be used as fertilizer.

Hua Meng Myanmar Co.,Ltd is implementing the environmental management plan with its employees. (Pls find in the next chapter 7)

Additionally, here are some of the model environmental management plans to mitigate impacts such as setting the aircondition temperature, saving energy, save lighting, save water consuming etc, as small scale, the eco vehicles, replacing the enrgy saving light, installing automatic water tap etc, as intermediate, using solar panel for heating and electrification, waste water treatment plant in large scale.

- Solar Panels for providing heating and electricity
- Collection of rain water for irrigation of landscape area
- Recycling of rain water for irrigation of landscape areas
- Recycling of water for flushing of toilets
- Usage of recycled wood for construction materials
- Ceiling Fans instead of Air-conditioning system for cooling
- Usage of hybrid cars and electric buggies to reduce fuel consumption

Flora & Fauna Management Plan

The plantation of trees at all spaces left after construction, had been managed to support the greening program. Here are some of the places of developed as greening areas.

Impact to the livelihood

The impact to the livelihood of the people nearby would be positive as it could create jobs and opportunities to enter entrepreneurship such as food out let, coffee shop auto bike repair shop, construction material outlet & grossary stores and etc.The food vendors are also allowed to sell their food and snacks to workers during their lunch time and before overtime work hours. (Pls find the following photos.)

Employment Opportunity

There will be 920 vacancies at this project when it is finished the construction including 20 foreign technicians. The local people will get the first priority to fill these positions. This project will be developed the job opportunity not only the local people but also to the whole country.

The seminar or training program would be provided to workers from time to time.All other mitigation of impacts would be learnt and keep contact with MONREC and follow all instructions.

The Transportation Route

The factory is located on Myothit Road. There is no impact to the transportation route of the nearby as the project is built in the designated plot of land. (Pls find the following photos of nearby area.)





Environmental Base line,

There is no environmental base line data recorded. However, the data that was taken during assessment at the project site could be considered as base line data as attached.



The assessment points

Factory (5 points in the factory area) (See on Page 45)

Ambient Air Quality Measurement

(See on Annex)

Noise Measurement (db)Room Temp.(C) RH %

(See on Annex)

Soil Test

(See on Annex)

Ground Water Quality Test(With Certified Lab. Results)

18 parameters (Result shown as attached)

Surface Water Test (With Certified Lab.Results)

18 Parameters (Result shown as attached)

Waste Water Effluent Test

BOD_5, COD, TSS, PH,etc.

4 Parameters for General (Result shown as attached)

As the waste water treatment plant is successfully installed and operating, all parameters in the waste water such as BOD, COD, pH and TSS are already treated to the NEQEG acceptance level. (Pls find the lab test results shown in Annex.

The detailed waste water treatment system was described on the attachment.

Summary of Mitigation Measures

The environmental mitigation and social consideration measures taken in the course of project implementation were examined based on the findings obtained through the environmental and social impact assessment.

Table (11) **Mitigation Measures in the Operation Phase**

Category	Item	Mitigation and Consideration Measures in Operation Phase	Responsibility	Time Schedule
Pollution	Air Quality	-Cleaning dust in the factory always -In case that a tenant live in the factory area which may cause exhaust gas pollution such as intensive cooking.	Workers	Always
	Water Quality	-No impacts to the surface and ground water as the septic tank is istalled	Developer	Done
	Solid Waste	-Domestic, commercial and sewage sludge will be controlled by workers such as applying 3Rs.	Developer	Always
	Waste Water	-Waste Water Treatment System is needed (Installed and Operating since Jan, 2019)	Developer	Done
	Soil Contamination	-Ban on infiltrate liquid waste onto the ground.	All	Always
	Noise and Vibration	Buffer zone for sound-proving to the diesel generator using at black out time. (The engine has installed the cylencer)	Developer	Done
	Ground Subsidence	-Consumption of ground water would be carefully controlled based on monitoring of ground water level.	Developer	Daily
	Offensive Odor	-Offensive odor which might be generated by the tenants would be strictly controlled.	Tenants	Daily
	Bottom Sediment	-Waste water from the septic tank through the plant and tenants would be comply with national guide lines.	All	Always
Natural Environment	Flora, Fauna and Biodiversity	-Planting and Maintenance of trees, vegetation , lawn in the public space such as road, retention pond and and other open spaces.	Developer	Ocassionaly
	Hydrological Situation	-Storm water would be utilized where it is suitable such as retention ponds, for gardening etc.	Developer	Always
Social Environment	Living and Livelihood	Septic tank system is designed to meet requirement of target effluent water quality. -no impact on loss of livelihood.	Developer	Always
	Existing social infrastructures and services	Community accessibility will be secured by improvement of existing road and construction residential road.	Developer	Done
	Water Usage	It is controlled	Developer	Daily
	Risk and Infectious disease such as AIDS/HIV	-Measures of infectious disease will be implemented as follows; • Plan for prevention of infectious disease from spreading. • Training plan for workers	Developer	Always
	Working conditions (including occupational safety)	-Working conditions for worker will be managed by tennants on requirement of Occupational Health and Safety (OHS)	Developer	Always
Other	Accident	-Accident prevention measures inside and outside the project area will be planned.	Developer	Always
	Global Warming	-Minimization of GHGs emission by construction machines and vehicle will be planned	Developer	Always

Table (12) **Environmental Management Plan (Operation Phase)**

Category	Item	Environmental Management	Implementing Administrator (Burden of expense)	Responsible Organization
Pollution	Air Quality	To monitor air quality and contol on dust	SPC	SPC
	Water Quality	Operation of waste water with septic tank system Monitoring of waste water treatment	SPC	SPC
	Solid Waste	Management of wastes to implement 3R for all wastes	Developer	Developer
	Waste Water	Check and monitor waste water treatment system	Developer	Developer
	Noise & Vibration	Monitoring Noise & Vibration, Installation of Sound Proof Avoid construction at night time Speed limit for drivers	SPC	SPC
Natural Environment	Flora, Fauna and	Implementing of Greening Plan	Developer	Developer

	Biodiversity			
	Hydrological Situation	Monitoring underground water usage Monitoring Ground Elevation	SPC	SPC
Social Environment	Living and Livelihood	Same as mitigation measure	SPC	SPC
	Risk and infectious disease such as AIDS/HIV	Prevention of spreading out Training of workers	Developer /SPC	Developer /SPC
	Working Conditions (including occupational safety)	Follow OHS working condition and guideline such as EHS by IFC	Developer	Developer
Others	Accident	Accident prevention measures	Developer	Developer
	Global Warming	Control of mitigation measures of GHGs	Developer	Developer

Remarks: :The cutted wastes from production line would not be used as fuel at boiler.

7	**Description of Responsible Authorities for Implementation of Mitigation Measures and Monitoring, financial allotment**	63

The implementation committee would be formed as following
(Environmental Conservation Group - Mitigation and Monitoring)

A.	General Manager	Chairman
B.	Manager (Operation Dept.)	Member
C.	Manager (Engineering & Maintenance Dept.)	Member
D.	Security Officer	Secretary

This structured team with resource personals as shown above should be the most responsible to implement this Environmental Management Plan.

Instruction
The team is responsible to submit regular report on Environmental Management Plan, Monitoring Program, The Implementation, New finding during implementation, the mitigation to those impacts and program with evidences and references.
The team should be ready to disseminate all finding and monitoring reports to local communities if it is needed.
The team is the communication channel and coordinator between the factory and local communities for all environmental and social affairs including CSR program.

The Financial Allotment

The company has allocated 2% of net profits to use as the fund for the committee and expense for the environmental management.

Cost Estimate for monitoring
There should be expected 2 types of monitoring cost such as (1) for measuring air, noise, dust, waste water etc. (2) miscellaneous such as sampling cost, logistic etc.

No.	Description	Budget Allotments (Ks)/one package
1	Sampling Cost including containers	10,000
2	Measuring Cost , Lab Tests (air, dust, noise, waste water etc.)	50,000
3	Logistics	20,000

All the big trees has been reserved in the project area.
The following trees are to be planted as under greening program.

1) All the space left after buiding are constructed would be planted trees and grass.
2) Seasonal crops would be planted in any space left especially infront of factory.

It is planned to plant Star Flower Tree, Indian Medlar, Mimusop elengi, gold mohar tree Poinciana regia near the entrance.

The other suitable trees such as Lagerstromia speciosa, The gum kino tree Pterocarpus macrocarpus, Banana, Mango Tree, conifer pine would alos be planted where it is suitable.



Environmental Monitoring Team would be organized as following to nursery, plant and maintain the grass and trees as greening program to the environment.

(Environmental Monitoring Group)

A.	General Manager	Chairman
B.	Manager (Operation Dept.)	Member
C.	Manager (Engineering & Maintenance Dept.)	Member
D.	Product Manager	Secretary

The telephone communication or messenger service should be used to get affected and most reliable to communicate each others.

It is well planned to get environment better by closely watch and supervice by group manager.

9	Monitoring Program	68

It is needed to follow the international best practices by preventing the harmful to the environment and mitigation if the project is to be built international standard garment manufacturing factory.
It is instructed by the Ministry of Natural Resources and Environmental Conservation supported with evidence and references for the environmental management plan, monitoring plan, environmental conservation plan committed by the project proponent.

The inspection would be followed as necessary for the international standards, the work safety and environmental friendly to this project.

It is also necessary to well organize and implement to close watch all necessary measures to prevent and mitigate all impacts to the environment.

In this monitoring program, the following are needed to complete monitoring.

- The quality of air, water, sound, smell and effluent are included together with continuous study or capacity building.
- The waste management
- Safety, Operation and Administration Practice
- Storage and Handling of fuels and chemicals

Monitoring (Pre Construction)

It is obmitted as construction was completed

Monitoring (During Construction)

It is obmitted as construction was completed.

Monitoring (Operation Period)

The environmental monitoring program during operation period after construction is responsibe to the project proponent. The team should be organized as following. The detailed monitoring program and parameters are described in the following table with the specific responsible. It would be reported regularly to the Ministry for the environmental management plan, monitoring plan and environmental conservation plan as instructed. The report would be submitted to the concerned department and Cc to the project office with the data collected and finding.

Environmental Monitoring Team,

The Environmental Monitoring Team would be organized as following.

A.	General Manager	Chairman
B.	Manager (Operation Dept.)	Member
C.	Manager (Engineering & Maintenance Dept.)	Member
D.	Product Manager	Secretary

This monitoring team will be reporting to the environmental conservation team as mentioned in the chapter (7) with the program, development and mitigation program for new impact findings with evidence and data collected. It is also needed to support the environmental conservation team for the report to be submitted to the ministry.

Safety Management Team,

The Safety Management Team would be organized as following.

A. Operation Manager	Team Leader
B. Manager (Admin)	Deputy Team Leader
C. Security	Member
D. Assistant Manager	Secretary

This monitoring team will be reporting to the environmental conservation team as mentioned in the chapter (7) with the program, development and mitigation program for new impact findings with evidence and data collected. It is also needed to support the environmental conservation team for the report to be submitted to the ministry.

Environmental Monitoring Plan which is part of the Environmental Management Plan and needed to specify the parameter and the program to distinguish the anticipated changes. To get monitored, the projects also needed the base line data and standards and functioned properly.

Monitoring Program and Parameters

The following table shows the parameter, method and program for the point that is to be measured.

Noise

No	Point of Pollution	Cause	Affected	Parameter (db)	Indication	Method	Person	Duration
1	Factory							
2	Car Parking							
3	Surrounding							

Water & Waste Water

No	Point of Pollution	Cause	Affected	Parameter (T^o,pH,DO,BOD_5, COD,TSS,NH_4,Cl,Oil and Grease)	Indication	Method	Person	Duration
1	Factory							
2	Car Parking							
3	Surrounding							

Air

No	Point of Pollution	Cause	Affected	Parameter (Temp;humidity PM_{10},NO,SO_2,CO)	Indication	Method	Person	Duration
1	Factory							
2	Car Parking							
3	Surrounding							

Solid Waste

No	Point of Pollution	Cause	Affected	Parameter (Volume or Weight)	Indication	Method	Person	Duration
1	Factory							
2	Car Parking							
3	Surrounding							

The following table shows the detailed information on how the parameter, method and program for the point that is to be measured.

Noise

No	Point of Pollution	Cause	Affected	Parameter	Indication	Method	Person	Duration
1	Surrounding of Project Area	Traffic(Car Parking, loading/Unloading)	Noice	Sound Level	dB	Sound Level Meter		Daily

Water & Waste Water

No	Point of Pollution	Cause	Affected	Parameter	Indication	Method	Person	Duration
1	Surrounding	Drain/Car Wash,etc.	Waste Water	Flow rate	BOD, COD	Lab Analysis	Person In charge	Monthly

Air

No	Point of Pollution	Cause	Affected	Parameter	Indication	Method	Person	Duration
1	Inside Factory and/or Surrounding	Emission, Exhaust(Machines ,Vehicle,etc.)	Air	Exhaust Air (Temp/Pressure)	(Temp;humidity PM_{10},NO,SO_2,CO) Ordor level	Lab Analysis	Person In charge	Daily, Weekly, Monthly

Solid Waste

No	Point of Pollution	Cause	Affected	Parameter	Indication	Method	Person	Duration
1	Surrounding	Tree leaves	Solid Waste	Volume/Weight	Volume	Visual, Weight Measurement	Person In charge	Daily, Weekly, Monthly

The data to be collected, locations, periods and the data collectors all should be managed pre construction, during construction and normal operation period respectively.

(Remarks, It could be omitted the pre-construction and during construction stage as the project is in the operation stage.)

Table (13) **Monitoring Plan (Operation Phase)**

Category	**Item**	**Location** (In factory and surrounding)	**Frequency**	**Responsible Organization**
Common	Monitoring of mitigation measures	Project Site (In factory and surrounding)	Quaterly (after 3 year of operation)	SPC
Air Quality	SO_2,NO_2,CO,TSP,PM_{10}	Construction Site (In factory and surrounding)	One week in dry and wet season	SPC
Water Quality	pH, SS, DO, BOD, COD, oil & grease, chromium	Construction Site(In factory and surrounding)	Once a year	SPC
Waste	Amount of solid waste Management of solid waste including domestic and industrial waste	Each tenant (In factory and surrounding)	Once/3month	Tenants
Soil Contamination	Status of control of solid and liquid waste which causes soil contamination	Each tenant (In factory and surrounding)	Once a year	Tenants
Noise and Vibration	Noise & Vibration level	Each tenant (In factory and surrounding)	Once (peak period)	SPC

Ground Subsidence	Ground elevation	Preservation site	Once a year	SPC
Offensive Odor	Status of offensive odor control by tenants	Each tenant (In factory and surrounding)	Twice per year	Tenants
Bottom Sediment	Combine with water quality	Preservation site	Once a year	SPC
Hydrology	Consumption of ground water amount	Preservation site	Once a year	SPC
Water Usage Hydrological Situation	Combine with ground subsidence monitoring	Preservation site (In factory and surrounding)	Once a year	SPC
Risk for infectious disease such as AIDS/HIV	Status of measures of infection disease	Each tenant/Worker	Once/month	SPC/Tenants
Working conditions (including occupational safety)	Working condition with safety and health	Work site	Once /month	SPC
Accident	Existence of accident	Work Site	As occasion arises	Tenants

The find out data should be checked with National Environmental Quality (Emission) Guidelines mentioned as following.

Indicative Guideline for Treated Sanitary Sewage Discharge (National Environmental Quality (Emission) Guidelines2015)

Table (6) **Effluent Levels (Manufacturing)(Garment, Textile and Leather Products)**

Parameter	Unit	Guideline Value
5 day Biochemical oxygen demand	mg/l	30
Absorbable organic halogens	mg/l	1
Ammonia	mg/l	10
Cadumm	mg/l	0.02
Chemical oxygen demand	mg/l	160
Cromium (hexavalent)	mg/l	0.1
Cromium (Total)	mg/l	0.5
Cobalt	mg/l	0.5
Color	m^{-1}	7(436nm[a],yellow) 5(525nm, red) 3(620nm,blue)
Copper	mg/l	0.5
Nickel	mg/l	0.5
Oil and grease	mg/l	10
Pesticides	mg/l	0.05-0.10[b]
pH	S.U[a]	6-9
Phenol	mg/l	0.5
Sulfide	mg/l	1
Temperature increase	C°	<3[b]
Total coliform baterial	100ml	400
Total nitrogen	mg/l	10
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

[a] Nanometers

[b] 0.05 mg/l for total pesticides (organophosphorus pesticides excluded) ; 0.10 mg/l for organophosphorus pesticides

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

Air Emissions (WHO Ambient Air Quality guide line)

Parameter	Unit	Guideline Value
Sulfur dioxide (SO_2)	mg/Nm^3	500
Nitrogen dioxides (NO_2)	mg/Nm^3	600
Particulate matter PM_{10}	mg/Nm^3	100
Particulate matter $PM_{2.5}$	mg/Nm^3	30
Ozone	mg/Nm^3	160

[a]Total metals are Arsenic, Lead, Cobalt, Chromium, Copper, Manganese, Nickel, Vanadium and Antimony

Table (14) **Air Emissions** (EQEG) (Environmental Quality Effluent Guide line)

Parameter	Average Period	Guideline Value mg/Nm^3
Nitrogen dioxides (NO_2)	1 Year 1-hour	40 200
Ozone	8 hour daily maximum	160
Particulate matter PM_{10}	1 year 24 hour	20 50
Particulate matter $PM_{2.5}$	1 year 24 hour	10 25
Sulfur dioxide (SO_2)	24 hours 10 minute	20 500

[a]Particulate metter 10 micro meters or less diameter
[b]Particulate metter 10 micro meters or less diameter

Table (15) For Small Combustion Facilities Emission Guidelines

Combustion Technology/Fuel	Particulate Matter PM_{10}[a]	Sulfur Dioxide	Nitrogen Oxides
Gas	1 Year 1-hour		40 200
Liquid	8 hour daily maximum		160
Natural gas (3-<15MW[g])	-	-	90[h] mg/Nm^3 210[i] mg/Nm^3
Natural gas (15-<50MW)	-	-	50 mg/Nm^3
Fuels other than natural gas (3-<15MW)	-	-	200[h] mg/Nm^3 310[j] mg/Nm^3
Fuels other than natural gas (15-<50MW)	-	-	150 mg/Nm^3
Gas	-	-	320 mg/Nm^3
Liquid	150 mg/Nm^3	150 mg/Nm^3	150 mg/Nm^3
Solid	150 mg/Nm^3	2,000 mg/Nm^3	650 mg/Nm^3

[a] Particulate matter 10 micrometers or less in diameter
[b] Spark ignition
[c] Milligrams per normal cubic meter at specified temperature and pressure
[d] Duel fuel
[e] Compression ignition

[f] Higher value applies if bore size >400mm
[g] Megawatt
[h] Electric generation
[I] Mechanical drive
[j] Includes biomass

Table (16) Work Safty Standards

Social Environment	
Air Quality at Works	As shown above
Noise & Vibration at works	As shown above
Solid Wastes & Hazardous Waste	Not available yet
Drinking Water	Not available yet
Safety Management	Not available yet
Communicative diseases including HIV/AIDS	Not available yet

10	**Reporting Requirement**	73

It is to provide the copy to the developer for the report on environmental management plan, environmental monitoring plan with the data, record and necessary document to be sent to the ministry as instructed.

Supporting Team to The Report

A. Operation Manager	Team Leader
B. Manager (Admin)	Deputy Team Leader
C. Security	Member
D. Assistant Manager	Secretary

This monitoring team as mentioned in the chapter (7) will be reporting to the environmental conservation team with the program, development and mitigation program for new impact find out with evidence and data collected. It is also needed to support the environmental conservation team for the report to be submitted to the ministry.

The monitoring and inspection would be as following.

- Monitoring in operation stage and inspection.
- Reporting to the small things to all accident and emergency matters.
- All activities should be recorded with guide line values and needed to take action due to these guide line value.
- Capacity Building

The report should be submitted following guide line frequency.

Table (17) Types of Reports

No	Types of Report	Frequency	Remarks
1	Monitoring and Inspection	Yearly	
2	Reporting on any small things, accidents and emergency	At the time of occurances	(*)
3	Report with reference at every environmental conservation time	Each time	
4	Capacity Building or Training Reports	Each time	

Remarks, (*) ECC Holder should report to the authority as soon as possible if accident or emergency matter occurs as mentioned on the ECC Certificate.

11	Emergency Plan	74

The emergency or evacuation plan should be drawn as following at pre construction, during construction and operation stages. (This report covers only operating stage as the construction is completed.)

The followings are based on the emergency plan management with the organized management team.

1) Fire
2) Natural Diaster (Water, Land, Wind & Earthquake)

The factory has installed the emergency evacuation plan by installation the clear signs and designated areas as shown.

Fig 8 **The direction for fire evacuation in the factory**

Safety Management Team would be organized as following.

Safety Management Team,

A. Operation Manager	Team Leader
B. Manager (Admin)	Deputy Team Leader
C. Security	Member
D. Assistant Manager	Secretary

Fire Prevention

Objective

To prevent lossess caused by un nessary fire broke out and to be able to get control the fire immediately that any time could happen.

- The good management for fire prevention that could prevent in the factory
- The cleaning program that keep always clean such as the management to the waste that could easily caught fire.
- To keep clean and store systematically all fuel such as storing, filling, utilizing and trashing etc.
- All electric wiring and using should be under the instruction and technics that laid by the Myanma Electric Coporation.
- To install earthing and antenna (optional) at all buildings
- The water jug for fire fighting, Sand bag, Fire Extinguisher and emergency alarm should be installed. The building would be constructed by RC and steel structure which could prevent and not easily caught fire. Tree leaves, bushes and all bio waste should be cleaned near the factory.

“No smoking” sign would be hanged on the wall near car park and in the factory that could be easily seen. The vehicle fueling, fuel storing and engine test running should be restricted at the parking lot.



Prevention of Fire brokeout and fire fighting should be followed the instruction shown under.

1) Fire fighting water jugs, Fire Extinguishers, Fire Hosts should be provided in the factory compound where it is suitable.
2) Automatic fire alarm and Steel bar for signal are to be provided
3) Fire Alarm System should be installed
4) Priority Fire fighting spot should be designed
5) Appoint fire security every day and night
6) The emergency evacuation door and ladders should be provided in the factory

Fire Prevention Program

1) Causes of fire brokeout and fire fighting program
2) Precaution Material and Equipments
3) Project Condition
4) Worker Forces
5) Security Forces
6) Water availability
7) Fire Prevention Method, Fire prevention team organizing and duties
8) Handling with electrical appliances
9) Fuel Usage
10) Fuel Oil Storage and Usage
11) Training and Inspection
12) Fire during Working Hours
13) Fire during Off Working Hours
14) Management and Logistics
15) Command and Communication

The Fire Prevention and Fire Fighting Program are organized based on the mentioned above and needed education and fire exercises or fire drill is needed sometimes at any conveniences.

The detailed programs are as following.

1) Causes of fire brokeout and fire fighting program
   1.1) Improper storage of Vehicles and Fuel, extensive temperature could caused fire brokeout
   1.2) Duedeligence
   1.3) Fire to the bushes or solid waste
   1.4) Less attention during vehicle fueling
   1.5) The left fire at cooking place, gas leaks and electri wire short by extensive heat are the causes of fire

1.B Fire fighting program

a)The company employees are most responsible to fight fire if the fire brokeout during working hours on weekdays. It is also needed to call fire center or nearest co fire bridgage simultaneously.

b)If fire brokeout on the off working hours or weekend, the security or duty officer has to lead the workers or workers family and fight as soon as noticed the fire broking out. It should also needed to call fire center or nearest co fire bridgage simultaneously.

2) Precaution Material and Equipments

The precaution material and equipments are classified as following that could easily fire due to negliance of employees and workers during operation stage.

I. Fuel and Lubricant
II. Papers for office use
III. All in the storage
IV. Electric Appliances
V. Solid Waste
VI. Vehicles
VII. Dried Grass and bushes

3)Project Condition

It is in the operation stage with full forces and overtime operation in the evening.

4)Worker Forces

There will be 920 workers at normal operation.

5)Security Forces

It is expected to appoint one security officer and 20 securities. These securities should take not only security but also responsible to the fire prevention by doing regular check as round check and supprise check.

6) Water availability

The tube well is running well for all domestic use and reserve for fire fighting as designed.

7) Fire Prevention Method, Fire prevention team organizing and duties

Fire prevention should be prioritized. It is necessary to all workers and employees about fire prevention, fire fighting by chart or seminar and workshop how to install the warrenty and green light to the environment.

It is to be organized the fire prevention team as following to prevent fire and monitoring.

Fire Prevention Team,

A. Operation Manager	Team Leader
B. Manager (Admin)	Deputy Team Leader
C. Security	Member
D. Assistant Manager	Secretary

It is obligation to all employees in principle, to fight together if the fire brokeout together with the following.

1) All company employee
2) All local residents and fire brigates
3) The authorites from township or division

The duties for the fire prevention team are as following.

1) To follow the fire prevention program

2) All electrical wiring and electric appliances in company should be checked with technicians and make sure fire prevention
3) To make announcement and check each & every steps of the regulation and proper usage of electricity
4) To check and record the inspection on fire prevention and warning activities as 3 times daily for the building
5) Daily warning by the team for storage of fuels and checking remaining fire at kitchen if the charcoal stove use

8)Handling with electrical appliances

The handling with electrical appliances should be as following

1) It should be informed to the technicians for repairing of electricity system of appliance brokeout. It should not fix by itself.
2) It should not use the exceed power than allowed by officially.
3) It should be installed the auto sercuit breaker and or safty for all electrical appliances

9)Fuel Usage

The fuel usage should be done as following

1) Do not bring the matches or spark maker near to the fuel storages and chemical storage
2) Fire Warning Sign should be put on view that easily seen by public near fuel and chemical storages
3) No fuel, chemical or radio active materials should be kept in the individual's room or office

10)Fuel Oil Storage and Usage

Fuel Oil Storage and Usage should be done as following

1) "No Smoking" sign should be installed near and or around the fuel storage.
2) Keep always clean with dry bushes, grass and paper waste near fuel storage tank
3) No spark making units should be allowed near fuel storages
4) To stop fuel charging while unloading the fuel tank boxer

11)Training and Inspection

1) The training and demonstration for the usage of fire extinguisher and fire fighting

2) The fire prevention team should be done the following
    - Fire waning announcement should be done done in the dry and hot season
    - Check the fire system of office and building
    - Check wiring system whether adequate or not
    - Check fire prevention demonstration program in place or not
    - Check fire fighting demonstration program in place or not

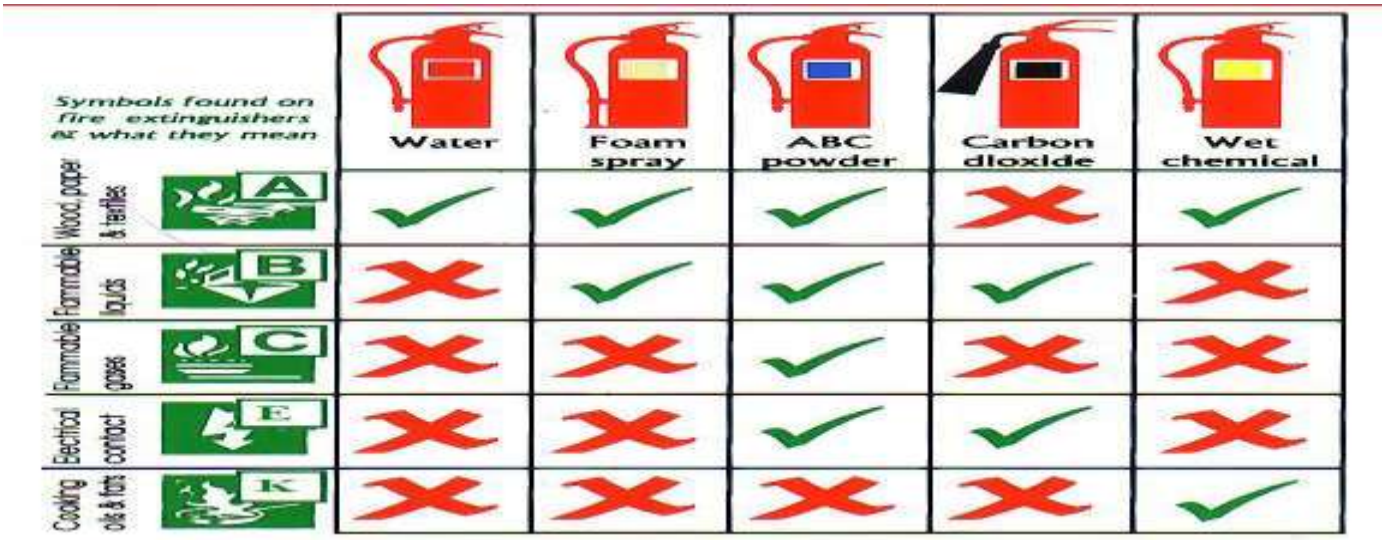
Fire Extinguisher Storage

The fire extinguishers should be kept for fire fighting based on the following

- Store Place: The nearest and easy place that potentialy fire brokeout
- Easy Access Keep Clear way to get these extinguisher easily
- Sign The sign should be clearly marked due to the level of fire on these extinguisher and fire hydrant and pipe
- Hanging All extinguishers should be kept at accessable space. (10 feet distance away between extinguishers)
- Inspection Check the expired date of the extinguishers always

Table (18) The type and usage of extinguisher

Extinguisher Type / Fire Classes	Water	Dry Chemical Powder B(E)	Dry Chemical Powder AB(E)	Carbon Dioxide	Foam	WFT Chemical
Class B *Flammable Liquid*	X	✓	✓	✓	✓	X
Class C *Flammable Gases*	X	✓	✓	X	X	X
Class E *Flammable Hazzards*	X	✓	✓	✓	X	X



The boundary of fire fighting

The boundary of the fighting would be Near building or Factory, office, staff quarter, car parking and all direction from the factory.

Fire Extinguisher and water supply
The following should be arranged to get the fire extinguisher and water supply

1) Fire Hydrant 1 nos., Fire Extinguisher 34 nos, and Fire Fighting Jugs 20nos.
2) Water Tank (2500gal)
3) Water Drum (5,00 gal, 8Nos)

12)Fire during Working Hours
The following procedure should be taken if the fire broke out in working hour

1) It should make sound continuously and shout “Fire, Fire, Fire” by who notice or see the fire broking out first in the factory premis or wastes.
2) It should inform immediately to the nearest or concerned fire department by who heared the sound of fire alarm or the sound of “Fire, Fire,Fire”.
3) Move the fire priority immediately if the fire brokeout in the company premis and try to destruct the building if it is possible to stop fire spread out.
4) By carring the fire fighting jugs and hangers, manage to fight the fire immediately by leaving just one person for security at office or department.
5) Inform all nearest fire bridgates or fire station immediately about fire.
6) Direct or assist to all fire fighting cars coming from outside to the place that fire brokeout.
7) Assist Fire bridgade to be able to cut the electrical system of the area that fire brokeout

13) Fire during Off Working Hours

The following are the procedures for the fire brokeout during off working hours in the company's premises

1) The duty officer or someone else who notice or see the fire broking out first in the factory premis or wastes should make sound continuously and shout "Fire, Fire, Fire" continuously until someones reach to assist.
2) The duty officer should imeediately contact or call to inform about the fire if he himself see the fire or hear the sound of fire alarm or someones shout.
3) Ask for help for the fire engine and to get assistant from nearest fire station.
4) Manage at fire fighting, not to spread out fire and the evacuation and moving goods from the place to the safty area.
5) Direct or assist to all fire fighting cars coming from outside to the place that fire brokeout.
6) Assign enough security to the area after sealed fire and before official inspection.

14)Management and Logistics

1) Manage for the smooth and fast vehicle movement without any delay including fire engine and water boxer.
2) The security team or department should take the control such as not lost and robbering.
3) Try to assist and send who got hurt during fire brokeout immediately to the nearest clinic or hospital.
4) All report should be made to the authority and company's head office on timely basic.

15)Command and Communication

All management level such as general manager, manager and assistant manager are responsible to be participated and close assistant in fire fighting and other necessary measures together with duty officer and security.

Any mode of communications such as telephone, messanger or even making sound as fire warning should be done.

The Emergency Contact Phone Numbers

1.	The Emergency Fire Station	191
2.	Central Fire Station (Yangon)	01-252011, 01-252022
3.	Police (Emergency)	199
4.	Ayeyarwaddy Division Fire Station	042-25296 , 042-21267
5.	District Director Office	042-29051, 042-290-52
6.	Township Fire Station(Kangyidaunt)	042-45211
7.	Township General Administration Office	042-45006
8.	Township Police Office	042-45178, 042-29134
9.	Myo Ma Police	042-23650

The Emergency Clinic and Aids

An AIDs medicines are provided by the company not only for emergency but also regular medical care to all employees.

A nurse aids boxes are installed work stations in the factory to get quick access.

Preparness for the natural diasastes(Water, Land Slide, Storm, Earthquake etc.)

It would prepare for all diasaster resistant eventhough it is not easy for all time.

It should be informed any loss and damage to the authority about the accident happen during evacuation from fire and take necessary measures such as immediately sending the people who got hurt to the nearby clinic or hospital and assist them.

The following are the emergency plan for this occation to claim the loss and assistant.

1) The environmental conservation team, the environmental monitoring team, the fire prevention team are needed to assist or solve together for all emergency situation at all time.
2) To find the exit or safe place is the most important evacuation procedures for all time.
3) Need to contact the township or regional level organizations for further arrangement based on the situation.
4) The concerned team must provide first aid or emergency treatment until nurses or rescue team come and send the wounds or serirously injured persons to the nearest clinic or hospital and provide the necessary treatment as soon as possible.
5) Need to inform authority about the losses and get advice or assistant

The following is the example of fire prevention training and exercised that the other company got assistant from the township level fire station for fire excersise.
The emergency care unit and rest room are provided as following including natural disasters.

The practical team by names is mentioned on the attached annex of "Emergency Plan" by grouping as

1. Fire Fighting Group
2. Water Supply Group
3. Communication Group
4. Evacuation Group
5. Security Group etc.

Occupational Health and Safety
The fund for OHS is allocated as 3~5 lakhs MMKs and it is including emergency health care. If the fund is not enough, the additional funding would be authorized to use by the decidion at the nearest BOD meeting. The purified drinking water is provided.

No dormitory or hostel is provided to the workers as the factory is closed to the workers' resident of village.

12	**Capacity Development and Training**	**80**

The following are the necessary training program needed regularly to provide for the capacity build up among the team members for prevention of natural environment, finding alteranatives to the mitigation of impacts and environmental conservation.

- The greening program
- Mitigation of Impacts by 3R system
- The Environmental Monitoring Program
- Diasaster Preparness Program & Fire Excersise (Fire Drill)

The cooperation with Ministry of Natural Resources and Environmental Conservation for training program is needed or sending delegates to the related training program from time to time.

13	**Public Consultation and Information Disclosure and Remarks**	**80**

As the project is implemented in the industrial zone, the environmental and social assessment was conducted by Kaung Kyaw Say Engineering Co.,Ltd and Hua Meng Myanmar Co.,Ltd had the no objection remarks from the concerned parties such as regional government.

The following are the concerned ministries and department including the Myanmar Investment Commission prior to the permit of operation.

1. Ayeyarwaddy Division Regional Government
2. Ministry of Industry
3. Ministry of Natural Resources and Environmental Conservation
4. Ayeyarwaddy Division Investment Commission

With the creation of jobs for local and nearby villages could definitely help income generation which is positive impact to social economic by this project.

The public consultation and declaration

The public consultation meeting was held as following

(1)The meeting hall of Kangyidaunt City Development Committee Office on 2018 September 27.

(2)The Kangyidaunt City Hall (Ayeyar Thri Thu Hka Hall) on 2019 May 23.

No.	Date	Description	Vanue
1	27-9-2018	Public Consultation Meeting with stakeholders, Kangyidaunt Tsp Level Government, NGOs and Organizations	Kangyidaunt City Development Committee Office
2	23-5-2019	Public Consultation Meeting with stakeholders, Kangyidaunt Tsp Level Government, NGOs and Organizations	Kangyidaunt City Hall(Ayeyar Thri Thu Hka Hall)

The impact of the waste water released from the factory to the public drain is the major issue and discussed majorly in this public consultation meeting. It was explained cleared to the audience about the undergoing waste water treatment plant installed in the factory by the responsible persons by explaining with the power point presentation. It is also committed that the project would be started after monsoon season and will be acknowledged after completion.

All the suggestion or complaint related to environmental and social affairs could be sent directly to the project office or through quarter or township administration office even the project is implemented in the industrial zone where other factories are surrounded and no public consultation made properly but any one can participate in environmental monitoring program.

The capacity building to the employees would be arranged together ECD of MONREC by trainings and courses when it is necessary.

The organizing and fund allocation are made for mitigation and monitoring program.

As the project is implemented in the industrial zone, which is designated to build the industries, factories are surrounded by other factory and not easy to reach the impact to the surrounding residential area. This is more directly concerned to the ministry and the local authority. Eventhough the public consultation is done, the following are the access to reach public concerned about the project if it is necessary to raise their concerns by sending mail or contacting office directly.

1. The office of Hua Meng Myanmar Co., Ltd (The contact address as shown on the cover of this report.)
2. The administration offices of ward, township and regional offices

(1)The 1st meeting at Kangyidaunt City Development Committee Office on 2018 September 27.

The total number of attendees = 45 peoples

The impact of the waste water released from the factory to the public drain is the major issue and discussed majorly in this public consultation meeting. It was explained cleared to the audience about the undergoing

waste water treatment plant installed in the factory by the responsible persons by explaining with the power point presentation. It is also committed that the project would be started after monsoon season and will be acknowledged after completion.

It could be easily monitor and mitigate to all environmental impacts based on these suggestions.

(2)TheSecond Meeting at Kangyidaunt City Hall (Ayeyar Thri Thu Hka Hall) on 2019 May 23.

The total number of attendees = 75 peoples
In this meeting, people understood more about the factory's operation function and the newly installed waste water treatment plant.

The result of meetings and the company's commitments

No.	Discussion points or request	Agreement or Commitment by Project Proponent
1	The Waste Water Discharge	No waste water would be discharged to the public drain and near by as the waste water treatment plant is installed and operating.
2	Fire Wood Usage	Try to use with rice briquette in replacing of fire wood as much as possible
3		

The development program to the people affected by this project implementation

The following are the commitment for the community development and project affected people by the implementation of this project.

(1) To give priority of appointing to the people for geeting employment if there are vacencies.
(2) To use prevention measures on mitigation of impacts as much as possible and to promote community development.
(3) To promote CSR activities always.

If the allotted fund is not enough, the project proponent would be use additional fund by getting approval from the nearest board of director meeting.

14	**General Recommendation, the CSR & environmental management financial allocation**	81

Environmental Management Plan is one of the key factors to be in line with Myanma Environmental Policy and it is mandatory to get Environmental Compliance Certificate (ECC) from ECD that all factories, projects and activities are needed to hold as legal certificate.

Hence, it is recommended to have a good Environmental Management Plan and follow as mentioned and committed such as Organizing, Monitoring and Reporting regularly.

CSR Fund

The company will be organized the CSR team and will cooperate with others for monitoring. This sub committee would be reporting for all implementations from time to time.

The funding is allocated to use 2% of the annual net profit by spending as following.

1. Environmental Conservation Works (50%)
2. Social Development (10%)
3. Education (15%)
4. For elderly people(10%)
5. For orphanage and religious affairs (15%)

The Environmental Conservation Fund

In general, most of the garment factory projects, it is found out less or no impacts to the environment by this project implementation but there will be positive impacts to social sector by creating the employments.

The environmental conservation team would be organized as mentioned in the chapter 7 while the funding is allocated to use 2% of the annual net profit by spending as following.

1. Environmental Conservation Works (50%)
   (Mitigation Measures, Implementing, Safeguard, Training and etc.,)
2. Environmental Monitoring Works (50%)
   (Monitoring Consultant, Supervision and Laboratory test etc.,)

These funds would be managed with the guidance of regional government.

Cost for Monitoring (Lab test estimate)

The measurement and test in laboratory during construction and operation stage would be as following.

Phase	Item	Frequency & Location	Expected Cost	Responsible Organization	Remarks
Construction Phase	Air, Noise, Waste Water	See table in Chapter 6	US$1,5000 /Yr	Contractor	(1)For measurement and lab tests only (2) The allotment should be readjusted with actual situation such as price changes etc.
Operation Phase	Air, Noise, Waste Water	See table in Chapter 6	US$1,5000 /Yr	Special Purpose Contractor (SPC)	(1)For measurement and lab tests only (2) The allotment should be readjusted with actual situation such as price changes etc.

ရည်ညွှန်းချက်။ ။(၁)ဧရာဝတီတိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ၊အဆိုပြုချက်စိစစ်ရေးအဖွဲ့၏၃၁-၅-၂၀၁၈ ရက်စွပါစာအမှတ် ဧရက/အ-၀၁၉/စက်မှု/၂၀၁၈(၁၆၂)။

ဧရာဝတီတိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ၊အဆိုပြုချက်စိစစ်ရေးအဖွဲ့၏၂၀၁၈ ခုနှစ်မေလ၃၁ရက်နေ့စွပါစာအမှတ် ဧရက/အ-၀၁၉/စက်မှု/၂၀၁၈(၁၆၂)။ အပိုဒ် ၁ (ခ) တွင်ပါရှိသည့်ညွှန်ကြားချက်အပေါ် ကုမ္ပဏီဘက်မှ လိုက်နာဆောင်ရွက်ထားချက်များ။ (မိတ္တူတင်ပြထားပါသည်)
ရည်ညွှန်းစာပါအပိုဒ် ၁(ခ) အရဖော်ပြချက်

ပတ်ဝန်းကျင်စီမံခန့် ခွဲမှုအစီအစဉ် (Environmental Management Plan) ရေးဆွဲတင်ပြရန်၊

ဧရာဝတီတိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ၊အဆိုပြုချက်စိစစ်ရေးအဖွဲ့၏၂၀၁၈ ခုနှစ်မေလ၃၁ရက်နေ့စွပါစာအမှတ် ဧရက/အ-၀၁၉/စက်မှု/၂၀၁၈(၁၆၂)ဖြင့်ညွှန်ကြားထားသည်ကိုကုမ္ပဏီသည်ရန်ကုန်မြို့မှကောင်းကျော်စေအင်ဂျင်နီယာလုပ်ငန်းကုမ္ပဏီလီမိတက်အား ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan)Report အစီရင်ခံစာရေးဆွဲတင်ပြရန်တာဝန်ပေးအပ်လုပ်ကိုင်စေခဲ့ပါသည်။

သုံးစွဲမည့်ရံပုံငွေနှင့်လုပ်ငန်းစဉ်အသေးစိပ်အစီအစဉ်များပါရှိသည့် (Environmental Management Plan) ကိုယခုအစီရင်ခံစာဖြင့်ရေးဆွဲတင်ပြထားပါသည်။

16	Conclusion	82

This is the project that Hua Meng Myanmar Co.,Ltd incorporated in Myanmar has projected the manufacturing of Garments on CMP basic by renting land and building with total area of 6.73 Acres at U Paing No.(17/2), Kwin No.184(Kha), Kangyidaunt (East) No.4 Quarter, Kangyidaunt Township, Pathein District, Ayeyarwaddy Division Region, complying with Foreign Direct Investment Law.

Based on the process flow and data got during assessment, it is found out that it would be both positives and negative impacts. With the workforce to this project is needed there are employment opportunities and it could definitely creates the positive impacts in social. It is also found out the potential impacts during the assessment but there are many ways by managing to develop no impacts or least impacts by exercising the good manufacturing practices such as noise controlling, the waste collection and management and fire & diasaster prevention (as shown in report details).

In conclusion, it is the project that could help poverty reduction, increasing GDP, the SME sector development and productivity in the region as well as generating direct and indirect employment in the area.

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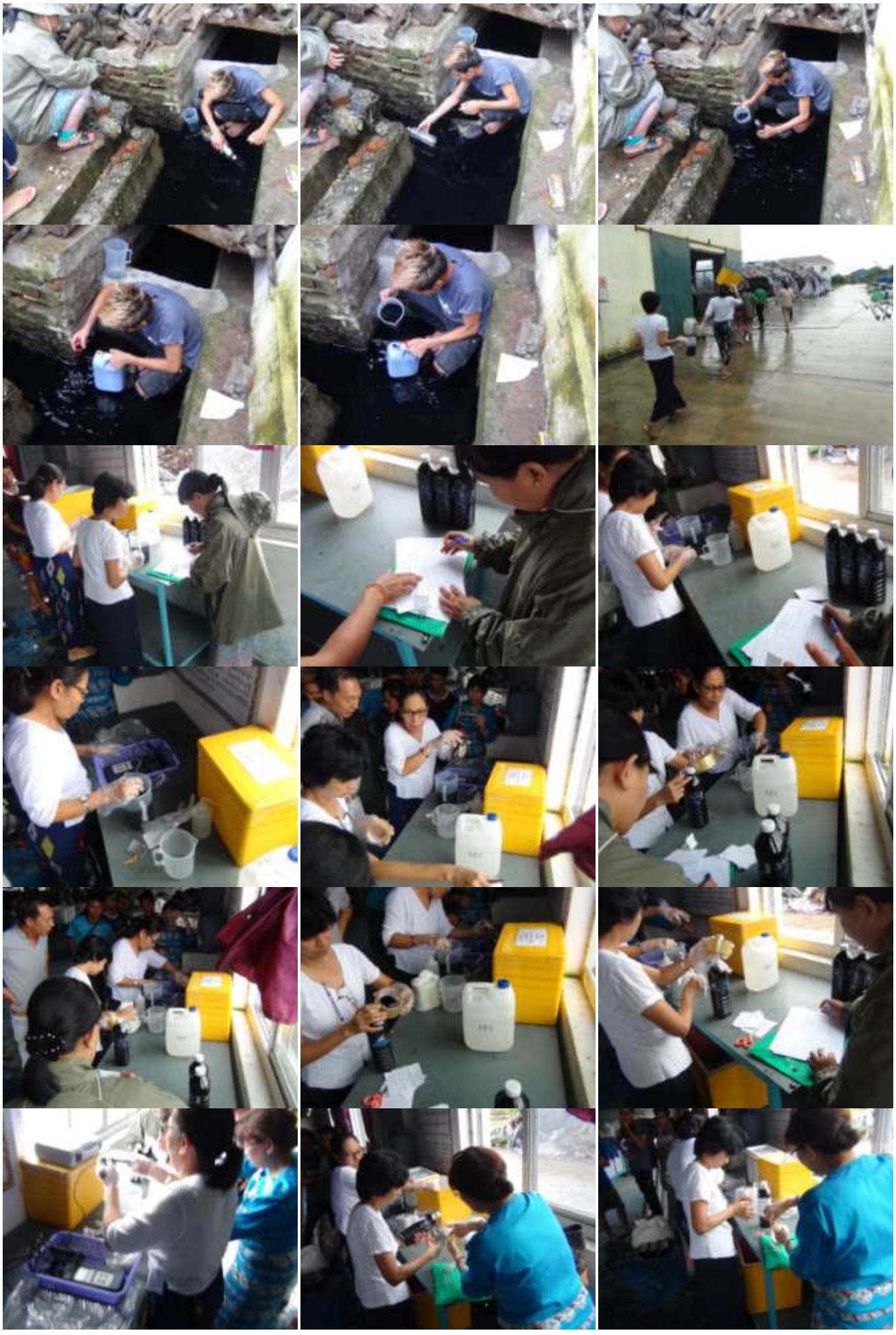
ASEAN Center for Energy


65%
NET WT - 45 KGS
MADE IN CHINA


印花涂料色浆
Potassium Permanganate



Attachments

1. The recorded photos
2. Waste Water Treatment Plant for Hua Meng Myanmar Co.,Ltd
3. Lab Test Results (From 10.1.2019 to 10.5.2019)
4. The Company Registration & List of Directors
5. Endorsement Application Form for the investment to be made in the Republic of the Union of Myanmar
6. The Endorsement by Ayeyarwaddy Region Investment Committee
7. Form of Permit, Form 1, Ministry of Planning and Finance
8. Certificate of Exporter/Importer Registration, Department of Trade, Ministry of Commerce
9. The Factory Location and Layout
10. List of Machines and Equipment to be imported
11. Production Process
12. The Products
13. The Employment Opportunities