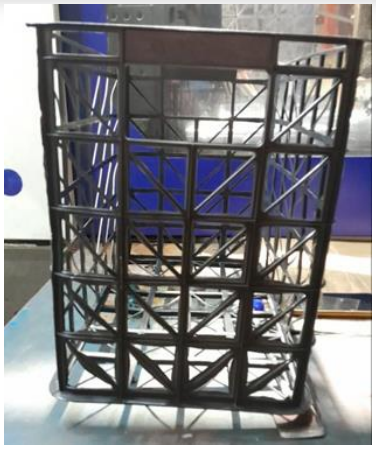
November 2024

ENVIRONMENTAL MANAGEMENT PLAN



Plastic Injection And Molding Factory

By Sweet Angel Company Limited

Prepared by

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စီမံကိန်းဆောင်ရွက်သူ Sweet Angel Company Limited ၏ ကတိကဝတ်

ဤ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan - EMP) တွင်ပါရှိသည့် ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့ပါးစေရေးလုပ်ငန်းများနှင့်စောင့်ကြပ်ကြည့်ရှုခြင်းလုပ်ငန်းများကို စီမံကိန်းဆောင်ရွက်သူကထိရောက်စွာဖြင့် အကောင်အထည်ဖော်ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

စီမံကိန်းဆောင်ရွက်သူအနေဖြင့် အောက်ပါအချက်များအား မှန်ကန်တိကျစွာ ဆောင်ရွက်ကြောင်း ကတိပြုပါသည်-

(က) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်သည် တိကျခိုင်မာ၍ ပြည့်စုံပါသည်။

(ခ) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းလုပ်ထုံးလုပ်နည်း အပါအဝင် သက်ဆိုင်ရာဥပဒေများကို တိကျစွာလိုက်နာ၍ ရေးဆွဲထားပါသည်။

(ဂ) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ပါ ကတိကဝတ်၊ ပတ်ဝန်းကျင်ထိခိုက်မှု လျော့ချရေးလုပ်ငန်းများနှင့် အစီအစဉ်များကို အပြည့်အဝအစဉ်အမြဲ လိုက်နာဆောင်ရွက်ပါမည်။

(ဃ) လုပ်ငန်းလည်ပတ်ဆောင်ရွက်နေသည့် ကာလအတွင်း အတည်ပြုထားသည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား တိုးတက်နေသည့်နည်းပညာများ၊ စနစ်များနှင့် လုပ်ငန်းလိုအပ်ချက်အပေါ်မူတည်၍ ပိုမိုကောင်းမွန်သည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ဖြစ်စေရန်အတွက် ပြင်ဆင်ဖြည့်စွက်ရန်ညွှန်ကြားချက်ရှိလာပါက လိုက်နာဆောင်ရွက်သွားပါမည်။

(င) စီမံကိန်းပိုင်ရှင်အနေဖြင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား ပြင်ဆင်ဖြည့်စွက်လိုပါက တည်ပြအတည်ပြုချက်ရယူ၍ ပြင်ဆင်ဆောင်ရွက်သွားပါမည်။

(စ) စီမံကိန်းလုပ်ငန်းများပြီးစီး၍ စီမံကိန်းလုပ်ငန်းပိတ်သိမ်းချိန်တွင် လူမှုဝန်းကျင်အား ထိခိုက်မှုအနည်းဆုံးဖြစ်စေရန် ဆောင်ရွက်မည်ဖြစ်ပြီး၊ ထိခိုက်မှုများရှိလာပါက ထိခိုက်မှုအနည်းဆုံးဖြစ်စေရန် အစီအမံများ ချမှတ်ဆောင်ရွက်သွားပါမည်။

မန်နေးဂျင်းဒါရိုက်တာ
Sweet Angel Company Limited

အစီရင်ခံစာရေးဆွဲသူ၏ ကတိကဝတ်ပြုဝန်ခံချက်

ဤ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အစီရင်ခံစာအား အောက်ပါအတိုင်း မှန်ကန်တိကျစွာ ဆောင်ရွက်ထားကြောင်း အစီရင်ခံစာရေးဆွဲသူ ဒေါက်တာဇင်မင်းနှင့် အခြားအကြံပေးပုဂ္ဂိုလ်များ (ပတ်ဝန်းကျင်လေ့လာရေးအဖွဲ့) (ECD လိုင်စင်အမှတ် - EIA-C 034/2023 (1.12.2023), EIA-C 033/2023 (1.12.2023), EIA-C 032/2023 (1.12.2023), EIA-C 035/2023 (1.12.2023), EIA-AC 039/2023 (1.12.2023)) မှ ကတိကဝတ် ပြုပါသည်။

(က) ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်း (၂၀၁၅) အပါအဝင် သက်ဆိုင်ရာ ဥပဒေများကို တိကျစွာလိုက်နာ၍ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းကို ဆောင်ရွက်ထား ပါသည်။

(ခ) စီမံကိန်းသည် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အစီရင်ခံစာပါ ကတိကဝတ်၊ ပတ်ဝန်းကျင် ထိခိုက်မှုလျော့ချရေးလုပ်ငန်းများနှင့် အစီအစဉ်များကို အပြည့်အဝ အစဉ်အမြဲလိုက်နာ ဆောင်ရွက်သွားပါမည်။

(ဂ) ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အစီရင်ခံစာပါ အချက်အလက်များသည် တိကျမှန်ကန် ၍ သက်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေများ၊ လုပ်ထုံးလုပ်နည်းများ နှင့်အညီ ရေးဆွဲထား ပါသည်။ ။

လေးစားစွာဖြင့်

ZinMin

ဒေါက်တာဇင်မင်း

အကျဉ်းချုပ်အစီရင်ခံစာ

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်၏ ရည်ရွယ်ချက်နှင့် နယ်ပယ်အတိုင်းအတာ

Sweet Angle Company Limited သည် ပလတ်စတစ်ဘူး၊ ခြင်းနှင့် ခွက်များ ထုတ်လုပ်ရောင်းချခြင်းလုပ်ငန်းစီမံကိန်းအတွက် ဤပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ပြင်ဆင်ထားပြီး ၎င်းသည် ဖွံ့ဖြိုးရေးအဆင့်၊ လည်ပတ်မှုအဆင့်နှင့် စွန့်ပစ်မှုအဆင့်များကို အကျုံးဝင်ပါသည်။ ဤပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်ကို သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန လက်အောက်ရှိ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနသို့ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်းနှင့်အညီ တင်ပြထားပါသည်။ ကုမ္ပဏီသည် ဤပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား ဒေါက်တာဇင်မင်းနှင့် အခြားအကြံပေးပုဂ္ဂိုလ်များ (ပတ်ဝန်းကျင်လေ့လာရေးအဖွဲ့) ၏ အကူအညီဖြင့် မြန်မာနိုင်ငံသဘာဝ ပတ်ဝန်းကျင်ဥပဒေများနှင့် စည်းမျဉ်းများအား လိုက်နာဆောင်ရွက်ရေးဆွဲထားပြီး Environmental Compliance Certificate (ECC) ကို ရယူရန် ရည်ရွယ်ပါသည်။

ဤအစီရင်ခံစာ၏ အထူးရည်ရွယ်ချက်များမှာ -

- စီစဉ်ထားသော လုပ်ဆောင်ချက်များနှင့် မစီစဉ်ထားသော ဖြစ်နိုင်ခြေရှိသော အဖြစ်အပျက်များကို ဖော်ထုတ်နိုင်ရန်
- စီမံကိန်းဧရိယာအတွက် သဘာဝပတ်ဝန်းကျင်အခြေခံကိန်းဂဏန်းဆိုင်ရာ အချက်အလက်များကို ဖော်ထုတ်မှတ်တမ်းတင်နိုင်စေရန်
- ဖြစ်နိုင်ခြေရှိသောသက်ရောက်မှုများကို ထုတ်ဖော်နိုင်စေရန်
- သက်ရောက်မှုများကိုလျော့ပါးစေရေးနည်းလမ်းများရရှိစေရန်နှင့်
-မြန်မာနိုင်ငံ၏ ဥပဒေများနှင့်အညီ သဘာဝပတ်ဝန်းကျင်ပြဿနာများတွင် လိုက်နာဆောင်ရွက်နိုင်စေရန် ရည်ရွယ်ပါသည်။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်၏ နောက်ခံအကြောင်းအရာ

မြန်မာနိုင်ငံအစိုးရသည် ရွှေပြည်သာစက်မှုဇုန်အုပ်ချုပ်မှုအောက်တွင် စီးပွားရေးလုပ်ငန်းများ ဖွံ့ဖြိုးရန် ရင်းနှီးမြှုပ်နှံသူများကို အားပေးလျှက်ရှိပါသည်။ Sweet Angel Company Limited သည် ပလတ်စတစ်ဘူး၊ ခြင်းနှင့် ခွက်များ ထုတ်လုပ်ရောင်းချခြင်းစီမံကိန်းတွင် ရင်းနှီးမြှုပ်နှံဆောင်ရွက်လျှက်ရှိပါသည်။ Sweet Angel Company Limited ၏ ဒါရိုက်တာသည် အဆိုပြုစီမံကိန်းအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲနိုင်စေရန် ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာနသို့ စီမံကိန်းအဆိုပြုချက်ကို တင်ပြခဲ့ပါသည်။ ထို့နောက် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနသည် စီမံကိန်းအား ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်

ပြုလုပ်ရေးဆွဲတင်ပြရန် စာအမှတ်၊ ရက/EIA/၂(၂၃၁၁/၂၀၂၄) ဖြင့် ညွှန်ကြားခဲ့ပါသည်။ (နောက်ဆက်တွဲ ၁)

စီမံကိန်းအကြောင်းအရာ

ဤစီမံကိန်းသည် တစ်နှစ်လျှင် ၂၆.၃၃၈ တန်အထိ ပလတ်စတစ်ဘူး၊ ခြင်းနှင့် ခွက်များ ထုတ်လုပ် ရောင်းချ၍ အရည်အသွေးမြင့်ထုတ်ကုန်များထုတ်လုပ်ရန်၊ ပြည်တွင်းထုတ်လုပ်မှုကို တိုးတက်စေရန်၊ နိုင်ငံခြား သွင်းကုန်များကို လျှော့ချရန်၊ ပြည်တွင်းအရည်အသွေးမြင့် ထုတ်ကုန်များကိုမြှင့်တင်ရန်၊ ဝယ်ယူသူများထံ အချိန်မီရောက်ရှိစေရန်နှင့် မြန်မာနိုင်ငံ၏ ဥပဒေများနှင့်စည်းမျဉ်းများအတိုင်း လည်ပတ်ရန် ရည်ရွယ်ပါသည်။

စီမံကိန်းအမည်	ပလတ်စတစ်ဘူး၊ ခြင်းနှင့် ခွက်များထုတ်လုပ်ရောင်းချခြင်းစီမံကိန်း
တည်နေရာ	အမှတ် ၁၀၄၊ စက်မှု ၇ လမ်း၊ (၁) ရပ်ကွက်၊ ရွှေပြည်သာစက်မှုဇုန် (၁)၊ ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး
ရင်းနှီးမြှုပ်နှံသူ	Sweet Angel Company Limited
	ဦးနေလင်းထိုက် ဒါရိုက်တာ ကျန်စစ်သားအိမ်ရာ၊ တိုက်ကြီးမြို့နယ်
ရင်းနှီးမြှုပ်နှံမှုပမာဏ	သန်း ၂၀ ကျပ်
အဆောက်အဦအရေအတွက်	၁၉၆၂၅ စတုရန်းမီတာ Steel Structure Building ၁ လုံး
ဧရိယာ	၁.၃၇၇ ဧက
ဝန်ထမ်းအရေအတွက်	၁၂ ယောက် (ဒေသခံ)
ဆက်သွယ်ရန်ပုဂ္ဂိုလ်	ဦးဇော်မင်းထက် ထုတ်လုပ်ရေးမန်နေဂျာ 095199994 အမှတ် ၁၀၄၊ စက်မှု ၇ လမ်း၊ (၁) ရပ်ကွက်၊ ရွှေပြည်သာစက်မှုဇုန် (၁)၊ ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး၊

စီမံကိန်းတွင် - ဖွံ့ဖြိုးရေးအဆင့်၊ လည်ပတ်မှုအဆင့်နှင့် ဖျက်သိမ်းခြင်းအဆင့်တို့ပါဝင်ပြီး လက်ရှိတွင်စီမံကိန်းသည် ဖွံ့ဖြိုးရေးအဆင့်ပြီးစီးပြီးဖြစ်၍ လည်ပတ်မှုအဆင့်သို့ ရောက်ရှိနေပြီ ဖြစ်ပါသည်။ အဓိကအဆောက်အအုံမှာ ၁၉၆၂၅ စတုရန်းမီတာရှိသော တစ်ထပ်သံမဏိ အဆောက်အအုံဖြစ်ပြီး အခြားဆက်စပ်အဆောက်အအုံများလည်း ဆောက်လုပ်ပြီးဖြစ်ပါသည်။

အဆင့်	Commence	ကြာချိန်	မှတ်ချက်

ဖွံ့ဖြိုးရေးအဆင့်	-	-	100% completed in 2023
လည်ပတ်ရေးအဆင့်	2022	20 Years	On going
ဖျက်သိမ်းခြင်း	TBA	3-6 months	N/A

ပလတ်စတစ်ကုန်ကြမ်းပစ္စည်း (Glue seed-PP) ကို တရုတ်နိုင်ငံမှ သွင်းယူမည်ဖြစ်ပြီး အခြားလိုအပ်သော ကုန်ကြမ်းပစ္စည်းများကို ပြည်တွင်းကုန်သည်များထံမှ ဝယ်ယူမည်ဖြစ်သည်။ စက်ရုံသည် တစ်နှစ်လျှင် ၂၆.၃၃၈ တန်အလေးချိန်ထိ ပလတ်စတစ်ဘူး၊ ခြင်းနှင့် ခွက်များ ထုတ်လုပ်မည်ဖြစ်ပြီး ကိတ်မုန့်ခြင်း၊ ၃ လီတာ ဘူးနှင့် အဖုံ (အစုံ)၊ ဆပ်ပြာခွက် (အစုံ) နှင့် ၂.၃ ကီလိုဂရမ် ပုံးနှင့် အဖုံး (အစုံ) ပါဝင်သည်။ ထုတ်လုပ်မှုလုပ်ငန်းစဉ်တွင် ပုံသွင်းခြင်း၊ ထိုးသွင်းခြင်း၊ အအေးခံခြင်း၊ ထုတ်ယူခြင်း၊ အရည်အသွေးထိန်းချုပ်ခြင်းနှင့် အပြီးသတ်ခြင်းဟူ၍ အဆင့်ခြောက်ခုပါဝင်သည်။

တစ်နှစ်လျှင် ရေသုံးစွဲမှုမှာ ၆၀,၀၀၀ ဂါလံဖြစ်ပြီး ရယူမည့် ရေအရင်းအမြစ်မှာ မြေအောက်ရေဖြစ်ပါသည်။ လျှပ်စစ်စွမ်းအင်သုံးစွဲမှုမှာ တစ်နှစ်လျှင် ၃၆,၅၀၀ kWh ဖြစ်ပြီး အမျိုးသားလျှပ်စစ်လိုင်းမှ ရယူပါသည်။ လောင်စာဆီသုံးစွဲမှုမှာ တစ်နှစ်လျှင် ၁၀၅,၃၀၀ ဂါလံဖြစ်ပြီး ပြည်တွင်းစက်သုံးဆီအရောင်းဆိုင်များမှဝယ်ယူကာ အဓိကအားဖြင့် သယ်ယူပို့ဆောင်ရေးနှင့် အရန်မီးစက်များအတွက် အသုံးပြုမည်ဖြစ်ပါသည်။

စက်ရုံ၏ ထုတ်လုပ်မှုလုပ်ငန်းစဉ်မှ ပလတ်စတစ်ဖြတ်စအမှိုက်များ ထွက်ရှိနိုင်ပါသည်။ ထုတ်လုပ်မှုလုပ်ငန်းစဉ်မှ စွန့်ပစ်ရေထွက်ရှိခြင်း မရှိပါ။ စက်ရုံလည်ပတ်မှုမှ hazardous waste များ မထုတ်လုပ်ပါ။ သို့သော် စက်ရုံပြုပြင်ထိန်းသိမ်းမှုလုပ်ငန်းများ၊ ယန္တရားပြုပြင်ထိန်းသိမ်းခြင်းနှင့် မီးသီး/မီးလုံးလဲရာမှ hazardous waste အနည်းငယ် ထွက်ရှိနိုင်ပါသည်။

လက်ရှိပတ်ဝန်းကျင်အခြေအနေဖော်ပြချက်

ပတ်ဝန်းကျင်လေ့လာဆန်းစစ်ရေးအဖွဲ့သည် ရွှေပြည်သာမြို့နယ်တွင် ရုပ်ပိုင်းဆိုင်ရာ၊ ဇီဝဗေဒ ဆိုင်ရာ၊ လူမှုစီးပွားရေးနှင့် ယဉ်ကျေးမှုဆိုင်ရာ အခြေခံဒေတာများကို စုဆောင်းခဲ့ပါသည်။ ၂၀၂၄ ခုနှစ် စက်တင်ဘာလတွင် လေ့လာသည့်ဧရိယာအား ကွင်းဆင်းသွားရောက်၍ မြေအရည်အသွေး၊ ရေအရည်အသွေး၊ လေထုအရည်အသွေး၊ ဆူညံသံအဆင့်များနှင့် အပင်/တိရစ္ဆာန်များကို စစ်တမ်း ကောက်ယူခဲ့ပါသည်။ မြေနမူနာနှင့် ရေနမူနာများကို ဓါတ်ခွဲခန်းတွင် စစ်ဆေးခဲ့ပြီး အမျိုးသား သဘာဝပတ်ဝန်းကျင်ထုတ်လွှတ်မှုစံနှုန်းများနှင့် ကိုက်ညီကြောင်း တွေ့ရှိရပါသည်။ လေထု အရည်အသွေးနှင့် ဆူညံသံအဆင့်များလည်း လက်ခံနိုင်သော အကန့်အသတ်များအတွင်း ရှိကြောင်း တိုင်းတာသိရှိရပါသည်။

စီမံကိန်းနေရာသည် ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး၊ အမှတ် ၁၀၄၊ စက်မှု ဂု လမ်း၊ (၁) ရပ်ကွက်၊ ရွှေပြည်သာစက်မှုဇုန် (၁) တွင် တည်ရှိပြီး အမျိုးမျိုးသောအခြားစက်ရုံများနှင့် သဘာဝအင်္ဂါရုပ်များဖြင့် ဝန်းရံထားသည်။ လေ့လာသည့်ဧရိယာအား စီမံကိန်းနေရာ၏ ၂၀၀ မီတာအဝိုင်းကို သတ်မှတ်ခဲ့ပါ သည်။

ရွှေပြည်သာမြို့နယ်သည် ၂၅.၇၆ စတုရန်းမိုင်ဧရိယာရှိပြီး ပူပြင်းစိုစွတ်သော ရာသီဥတုရှိပါသည်။ အဓိကရေစီးကြောင်းများမှာ လှိုင်မြစ် (ဝါးတစ်ရာမြစ်) ဖြစ်သည်။ သဘာဝပေါက်ပင်များ အနေဖြင့် ကျွန်းနှင့် ဒီရေတောများပါဝင်ပြီး တောရိုင်းတိရစ္ဆာန်များ မရှိပါ။

စီးပွားရေးအရ ရွှေပြည်သာမြို့နယ်သည် ဖွံ့ဖြိုးပြီး လူအများစုသည် စက်မှုလုပ်ငန်းများနှင့် ကုန်သွယ်ရေးလုပ်ငန်းများတွင် လုပ်ကိုင်ကြသည်။ မြို့နယ်သည် လမ်းပန်းဆက်သွယ်ရေးနှင့် အခြေခံအဆောက်အအုံဆိုင်ရာဝန်ဆောင်မှုလုပ်ငန်းများကောင်းမွန်ပြီး စက်မှုဇုန်သုံးခုရှိပါသည်။ ၂၀၂၂-၂၀၂၃ ခုနှစ်တွင် လူတစ်ဦးလျှင် စုစုပေါင်းဝင်ငွေမှာ ၃,၀၇၄,၅၂၀ ကျပ်ဖြစ်ပြီး အလုပ်လက်မဲ့နှုန်း မှာ ၈.၃၅% ဖြစ်သည်။

ရွှေပြည်သာမြို့နယ်၏ အဓိကရေသုံးစွဲမှုအား မြို့နယ်ဖွံ့ဖြိုးရေးကော်မတီရေထောက်ပံ့မှုစနစ်နှင့် အဝီစိတွင်းများမှ အဓိကရယူပါသည်။ လျှပ်စစ်စွမ်းအင်ကို အမျိုးသားလျှပ်စစ်လိုင်းမှ ထောက်ပံ့ပြီး စက်မှုဇုန်များအပါအဝင် အားလုံးကို ဓါတ်အားထုတ်လွှတ်နိုင်ပါသည်။ အမှိုက်စီမံခန့်ခွဲမှုကို ရန်ကုန်မြို့ပြဖွံ့ဖြိုးရေးကော်မတီ (YCDC) မှ ကြီးကြပ်ပါသည်။

မြို့နယ်တွင် အထက်တန်းကျောင်း ၅ ကျောင်း၊ အလယ်တန်းကျောင်း ၈ ကျောင်း၊ မူလတန်းကျောင်း ၁၁ ကျောင်းနှင့် မူကြိုကျောင်း ၁ ကျောင်းရှိပြီး တက္ကသိုလ် ၁ ခု ရှိပါသည်။ ရွှေပြည်သာမြို့နယ်တွင် ရပ်ကွက် ၂၃ ခု၊ ကျေးရွာအုပ်စု ၄ ခုနှင့် ကျေးရွာ ၅ ခုဖြင့် ဖွဲ့စည်းထားပြီး ဆေးရုံတစ်ရုံရှိသည်။စာတတ်မြောက်မှုနှုန်းမှာ ၉၇.၉၆% ဖြစ်ပြီး ကျောင်းတက်ရောက်မှုနှုန်းမှာ ၉၆% ဖြစ်သည်။ ၂၀၂၁-၂၀၂၂ ခုနှစ်တွင် တက္ကသိုလ်ဝင်တန်းအောင်ချက်မှာ ၄၃.၈၆% ဖြစ်ပါသည်။

၂၀၂၃ ခုနှစ်တွင် မွေးဖွားမှု ၁၃၃၃ ဦးနှင့် သေဆုံးမှု ၅၅၈ ဦးရှိသည်။ ရွှေပြည်သာမြို့နယ်တွင် အများဆုံးဖြစ်ပွားသောရောဂါများမှာ တီဘီရောဂါနှင့် ဝမ်းပျက်ဝမ်းလျှောရောဂါတို့ဖြစ်သည်။ မြို့နယ်တွင် သဘာဝဥယျာဉ်နေရာဖြသ်သည့် ရန်ကုန်လှော်ကားအမျိုးသားဥယျာဉ်သည် ဖွင့်လှစ်ထားသော ဘေးမဲ့ တိရစ္ဆာန်ဥယျာဉ်တစ်ခုဖြစ်သည်။

ဖြစ်နိုင်ချေရှိသော ပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုများ ဖော်ထုတ်ခြင်း နှင့် ဆန်းစစ်ခြင်း

ဖြစ်နိုင်ချေရှိသော ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုများ ဖော်ထုတ်ခြင်း နှင့် ဆန်းစစ်ခြင်းတွင် ပြင်းထန်သည့် သက်ရောက်မှုများ၊ ကြွင်းကြွန်သက်ရောက်မှုများအား ကောင်းကင်ဓါတ်ပုံများ၊ ဂြိုလ်တုဓါတ်ပုံများ၊ မြေပုံများ အသုံးပြု ဆန်းစစ်ခြင်းတို့အောက်ပါအတိုင်း ပါဝင်ပြီး အသေးစိတ်အား အခန်း (၅) ၌ ဖော်ပြထားပါသည်။

ဖြစ်နိုင်ချေရှိသော ဘေးအန္တရာယ်များ ဖော်ထုတ်ခြင်းနှင့် လျော့ကျစေရေး အစီအမံများ

ပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုများဖော်ထုတ်ရာတွင် သက်ရောက်မှု၏ ပြင်းထပ်မှု ပမာဏ (လျစ်လျူရှု/အလယ်အလတ်/ပြင်းထန်-ရေချိန်အနိမ့်အမြင့်ပေါ်မူတည်) နှင့် ပြင်းထန်မှု ကြာချိန် (တခဏ/အမြဲတမ်း) အပေါ်အခြေခံပါသည်။

ဖြစ်နိုင်ချေရှိသော သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုများအတွက် အရင်းအမြစ်များ

ဖြစ်နိုင်ချေရှိသော သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုများဆိုင်ရာ အချက်အလက်များ	ဖော်ပြချက်
စွမ်းအင်သုံးစွဲမှု	စက်ပစ္စည်းနှင့် အလင်းရောင်အတွက် စွမ်းအင် (လျှပ်စစ်) သုံးစွဲမှု
ကုန်ကြမ်းသုံးစွဲမှု	ပလပ်စတစ်ပစ္စည်းများ
ဓာတ်ငွေ့ထုတ်လွှတ်မှု	dust, fumes, VOC, CO, CO_2
ဆူညံသံထုတ်လွှတ်မှု	စက်ယန္တရားများ လည်ပတ်ခြင်း၊ တစ်ခါတစ်ရံ မီးစက် လည်ပတ်မှု။
ရေသုံးစွဲမှု	ဝန်ထမ်းများ တစ်ကိုယ်ရည်သုံးရေ
ရေဆိုးစွန့်ပစ်ခြင်း။	ဆေးကြောခြင်းနှင့် အိမ်သာအသုံးပြုခြင်းမှ ဝန်ထမ်းများ စွန့်ပစ်သည့် ရေဆိုးများ
အထွေထွေစွန့်ပစ်အမှိုက်	ပလပ်စတစ်အပိုင်းအစများ၊ စက္ကူ၊ ကတ်ထူပြား၊ အစားအစာစွန့်ပစ်ပစ္စည်းများ၊ လူသုံးစွန့်ပစ်ပစ္စည်းများ
ဘေးအန္တရာယ်ရှိသော စွန့်ပစ်ပစ္စည်း	စက်ဆီ၊ အင်ဂျင်ဆီ၊ ချောဆီနှင့် လောင်စာဆီအကြွင်းအကျန်

ထိုသို့ စီမံကိန်း တည်ဆောက်ခြင်းကာလ၊ လည်ပတ်ခြင်းကာလ နှင့် ဖျက်သိမ်းခြင်း ကာလတို့တွင် ပတ်ဝန်းကျင် နှင့် လူမှုစီးပွားအပေါ် သက်ရောက်သည့် သက်ရောက်နိုင်မှုများအား အောက်ဖော်ပြပါအတိုင်း ဖော်ထုတ်သတ်မှတ် ထားပါသည်-

သက်ရောက်နိုင်မှုများ		
လူသားများအပေါ်သက်ရောက်ခြင်း	**ပတ်ဝန်းကျင်အပေါ်သက်ရောက်ခြင်း**	**စွန့်ပစ်ခြင်း/ထုတ်လွှတ်ခြင်းများ**
၁။ လူမှုရေးဆိုင်ရာ	၁။ လေထု	၁။ စွန့်ပစ်ပစ္စည်း အစိုင်အခဲများ
၂။ ကျန်းမာရေးဆိုင်ရာ	၂။ ရေထု	၂။ စွန့်ပစ်အရည်များ
၃။ စီးပွားရေးဆိုင်ရာ	၃။ မြေထု	၃။ ထုတ်လွှတ်အခိုးအငွေ့များ
၄။ ဘေးအန္တရာယ်ဆိုင်ရာ	၄။ ဆူညံသံ /တုန်ခါမှု	၄။ ဘေးအန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများ

ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် လျော့ကျစေရေးဆောင်ရွက်ချက်များ

ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း၏ ရည်ရွယ်ချက်မှာ ပတ်ဝန်းကျင်အပေါ်ဖြစ်ပေါ်နိုင်သည့် ဘေးအန္တရာယ်များဖော်ထုတ်ရန်နှင့် စီမံကိန်း လုပ်ဆောင်မှုများမှ ဖြစ်ပေါ်လာနိုင်သည့် သက်ရောက်မှုများအား တိုင်းတာရန်၊ ဖယ်ရှားရန်၊ ထိန်းချုပ်ရန် သို့မဟုတ် လျော့ကျစေရေး ဆောင်ရွက်ရန်တို့ ဖြစ်ပါသည်။

ပတ်ဝန်းကျင်ထိခိုက်နိုင်မှုဆန်းစစ်ခြင်း

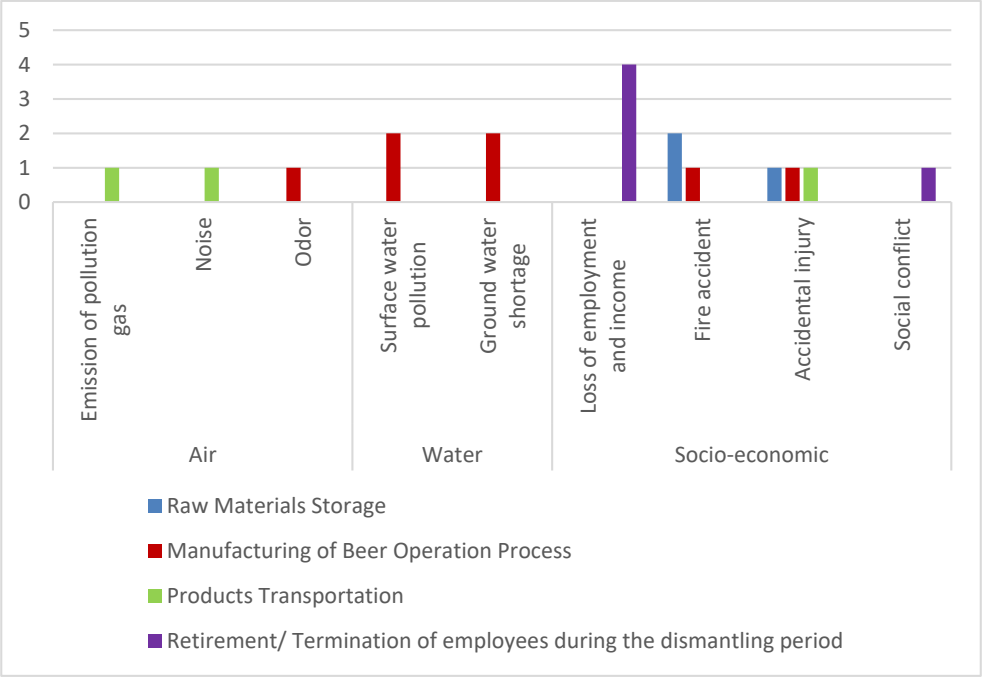
အဆိုပြုစီမံကိန်းကြောင့် ဖြစ်ပေါ်လာနိုင်မည့် ပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုများနှင့် လျော့ပါးစေရေး အစီအမံများအား အစီရင်ခံစာ၌ အသေးစိတ် ထည့်သွင်းရေးဆွဲထားပါသည်။ ဖြစ်ပေါ်လာနိုင်မည့် သက်ရောက်မှုများအား အောက်ပါအတိုင်းဖော်ပြအပ်ပါသည်-

ကာလ	ဆောင်ရွက်ချက်	ဘေးအန္တရာယ်	သက်ရောက်မှု
ဖွံ့ဖြိုးရေး	နေရာ	မြေယာသိမ်းဆည်းမှု၊ အတင်းအကြပ်ရွှေ့ပြောင်းစေမှု	လူမှုရေး၊ သမိုင်း၊ ယဉ်ကျေးမှု၊
	ဒီဇိုင်း	အမြင်ပသာဒ	ပတ်ဝန်းကျင်
	ဆောက်လုပ်ရေး	ဆူညံမှု၊ ဖုန်မှုန့်၊ ညစ်ညမ်းမှု၊ စွန့်ပစ်ပစ္စည်း၊ ပဋိပက္ခ	ပတ်ဝန်းကျင်၊ လူမှုရေး
	တပ်ဆင်ခြင်း	ဆူညံမှု၊ ဖုန်မှုန့်၊ ညစ်ညမ်းမှု၊ စွန့်ပစ်ပစ္စည်း၊ ပဋိပက္ခ	ပတ်ဝန်းကျင်၊ လူမှုရေး
လည်ပတ်ရေး	လည်ပတ်ခြင်း	စွန့်ပစ်ပစ္စည်း၊ ပဋိပက္ခ	ပတ်ဝန်းကျင်၊ လူမှုရေး
	ပြုပြင်ထိန်းသိမ်းခြင်း	ဆူညံမှု၊ ဖုန်မှုန့်၊ ညစ်ညမ်းမှု၊ စွန့်ပစ်ပစ္စည်း၊ ပဋိပက္ခ ပဋိပက္ခ	ပတ်ဝန်းကျင်၊ လူမှုရေး လူမှုရေး

	ဝန်ဆောင်မှုပေးခြင်း		
ဖျက်သိမ်းရေး	ရပ်စဲခြင်း	ပဋိပက္ခ	လူမှုရေး

ပတ်ဝန်းကျင်ဆိုင်ရာ ဘေးအန္တရာယ် နှင့် သက်ရောက်မှုဆန်းစစ်ခြင်း အကျဉ်းချုပ်

စီမံကိန်းမှ ဖြစ်ပေါ်လာနိုင်သည့် အလားအလာရှိသော သက်ရောက်မှုများကို ကြွင်းကြန်နိုင်ချေနည်းသည့် အဆင့်များအဖြစ် အမျိုးအစား ခွဲခြားနိုင်ပါသည်။ ကျန်ရှိသည့် အန္တရာယ်များအား အလယ်အလတ်၊ မြင့်မား၊ သို့မဟုတ် ပြင်းထန်မှုအဖြစ် အကဲဖြတ်ထားခြင်း မရှိပါ။ အစီရင်ခံစာ အခန်း (၅) ၌ ဆန်းစစ်ချက်အကျဉ်းချုပ်အား ဖော်ပြထားပြီး၊ သက်ရောက်မှု လျော့ပါးစေမည့် သို့မဟုတ် ပျောက်ကွယ်စေမည့် အချက်များအားလည်း ထည့်သွင်းဖော်ပြထားပါသည်။



ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွား သက်ရောက်မှုဆန်းစစ်ခြင်းဇယား အကျဉ်းချုပ်

အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးခြင်း နှင့် ပူးပေါင်းဆောင်ရွက်ရေး ရလဒ်များ

အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးခြင်းနှင့် ပူးပေါင်းဆောင်ရွက်ရေးရလဒ်များအနေဖြင့် အကြံပြုချက်များရရှိခြင်း၊ စီမံကိန်းဆောင်ရွက်သူမှ ပြန်လည်တုံ့ပြန်မှုများအား အစီရင်ခံစာ အခန်း (၆) ၌ အသေးစိတ်ဖော်ပြထားပါသည်။

အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်းနှင့် သတင်းအချက်အလက် ထုတ်ဖော်ခြင်း

စီမံကိန်းအနေဖြင့် ပတ်ဝန်းကျင်ဆိုင်ရာကိစ္စရပ်များနှင့်စပ်လျဉ်း၍ ဒေသခံများနှင့်တွေ့ဆုံဆွေးနွေးခြင်းအား လုပ်ငန်းစဉ်၏ အရေးကြီးအစိတ်အပိုင်းအဖြစ် ဆောင်ရွက်ထားပါသည်။ တွေ့ဆုံဆွေးနွေးမှုများမှ ဒေသခံများ၏ လိုအပ်ချက်များအား ဖော်ထုတ်ရာတွင် အထောက်အကူပြုပါသည်။

တိုင်ပင်ဆွေးနွေးမှုများမှ ရလဒ်များအား မှတ်တမ်းတင်ထားရှိပါသည်။ စီမံကိန်းအနေဖြင့် တွေ့ဆုံဆွေးနွေးမှုများအား အောက်ပါပုဂ္ဂိုလ်များဖြင့် ဆောင်ရွက်ထားပါသည်-

- ဌာနဆိုင်ရာများမှ တာဝန်ရှိသူများ
- တိုင်းဒေသကြီးအစိုးရအဖွဲ့ဌာနများမှ တာဝန်ရှိသူများ နှင့်
- ဒေသခံအစုအဖွဲ့များ နှင့် စီမံကိန်းဝန်ထမ်းများ
- ဒေသအာဏာပိုင်စက်မှုဇုန်ကော်မတီ
- ကန်ထရိုက်တာများနှင့် အလုပ်သမား၊ရင်းနှီးမြှုပ်နှံသူများသည် စက်ရုံနှင့်ကပ်လျက်၊
- ဒေသခံလူထုများ၊ ပရောဂျက် စက်ရုံ ဇရိယာ အနီး/ပတ်ဝန်းကျင်

လူထုတွေ့ဆုံဆွေးနွေးမှုရလဒ်များ

အစီရင်ခံစာ ရေးဆွဲရာတွင် အများပြည်သူ၏ သဘောထားအမြင်များအား ထည့်သွင်းစဉ်းစားခဲ့ပါသည်။

စီမံကိန်းအား အတည်ပြုရာတွင် ထုတ်ပြန်ပြဌာန်းထားသည့် ဥပဒေ၊ နည်းဥပဒေ၊ လုပ်ထုံးလုပ်နည်း၊ အမိန့်နှင့် ညွှန်ကြားချက်များအား လိုက်နာ၍ ဆောင်ရွက်စေခဲ့ပါသည်။ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် အတည်ပြုချက် လုပ်ငန်းစဉ်ဆိုင်ရာ အသေးစိတ်အချက်အလက်များအားပေးထားပါသည်။

ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီနှင့် သက်ဆိုင်ရာအာဏာပိုင်များမှ စက်မှုကဏ္ဍဖွံ့ဖြိုးတိုးတက်ရေးနှင့် အလုပ်အကိုင်အခွင့်အလမ်းများ တိုးတက်လာရေး၊ ဒေသတွင်းဝင်ငွေတိုးမြင့်လာရေးတို့အတွက်စီမံကိန်း မြေပေါ်တွင် ဆောင်ရွက်ခွင့်ပြုခဲ့ပါသည်။

EMP အစီရင်ခံစာ ဆောင်ရွက်စဉ်အတွင်း စီမံကိန်းဝန်ထမ်းများနှင့် ဒေသခံလူထုထံမှ တိုင်ကြားချက်နှင့် တုန့်ပြန်ချက်များ မရရှိခဲ့ပါ။ CSR လုပ်ငန်းမှတဆင့် ဒေသခံများဖွံ့ဖြိုးရေးလုပ်ငန်းများတွင် ပံ့ပိုးပေးနိုင်ရန် ညှိနှိုင်းဆွေးနွေးခဲ့ပြီး၊ စီမံကိန်းဆောင်ရွက်ခြင်းကြောင့် ဒေသတွင်းအလုပ်အကိုင်အခွင့်အလမ်းများ တိုးတက်ခဲ့ပါသည်။

ဥပဒေ၊ နည်းဥပဒေများနှင့်အညီဆောင်ရွက်ထားသည့် ဤ EMP အစီရင်ခံစာအား အများပြည်သူထင်မြင်ချက်ပေးနိုင်မည်ဖြစ်ပါသည်။ အစီရင်ခံစာ အပြည့်အစုံအား အင်္ဂလိပ်ဘာသာဖြင့် ရေးသားထားပြီး၊ လွယ်ကူရှင်းလင်းစွာရေးသားထားသည့် အကျဉ်းချုပ်အစီရင်ခံစာအား မြန်မာဘာသာဖြင့် ဖတ်ရှုနိုင်မည် ဖြစ်ပါသည်။ ဤအစီရင်ခံစာအား သက်ဆိုင်သူများသိရှိနိုင်ရန် စီမံကိန်းရုံး၌လည်း ထားရှိသွားမည် ဖြစ်ပါသည်။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်၏ မူဝါဒနှင့်ရည်မှန်းချက်

အဆိုပြုစီမံကိန်းအတွက် တိကျသောစီမံကိန်း ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) တစ်ခုကိုပြင်ဆင်ထားပါသည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) သည် စီမံကိန်း

ကာလတစ်လျှောက်လုံး ဆောင်ရွက်ရမည့် လိုက်နာမှုလိုအပ်ချက်များ၊ လျှော့ချရေးအစီအမံများနှင့် စောင့်ကြည့်ကြီးကြပ်ရေးအစီအစဉ်များကို အကြမ်းဖျင်းအားဖြင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုဘောင်ကို သတ်မှတ်ပေးရန်ဖြစ်သည်။

အခန်းကဏ္ဍနှင့် တာဝန်များ

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) သည် စီမံကိန်းတွင်ပါဝင်မည့် ပုဂ္ဂိုလ်အားလုံးအတွက် အဓိကအခန်းကဏ္ဍနှင့် တာဝန်များကို ဖော်ပြထားပါသည်။

အစီအစဉ်ရေးဆွဲခြင်းနှင့် အကောင်အထည်ဖော်ခြင်း

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) သည် ဤလေ့လာမှု၏တွေ့ရှိချက်များအပေါ် အခြေခံ၍ ပြင်ဆင်ရေးဆွဲထားပြီး အဆိုပြုစီမံကိန်း၏ ဖြစ်နိုင်ချေရှိသော ပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုများကို လျော့ပါးစေရန်အတွက် ဒီဇိုင်းနှင့်စီမံခန့်ခွဲမှုအစီအမံများကိုဖော်ပြထားပြီး လက်ခံနိုင်သောအဆင့်များနှင့်ဆက်စပ်နေသည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အား ပုံမှန်ပြန်လည်သုံးသပ်ပြီး စီမံကိန်းလိုအပ်ချက်များနှင့်ကိုက်ညီစေရန် ပြင်ဆင်ဆောင်ရွက်မည် ဖြစ်သည်။

စောင့်ကြည့်လေ့လာခြင်း၊ မှတ်တမ်းတင်ခြင်းနှင့်အစီရင်ခံခြင်း

စီမံကိန်းဧရိယာအတွင်းရှိ အဆိုပြုစီမံကိန်းနှင့် ဆက်စပ်သောလုပ်ဆောင်မှုများအတွက် စောင့်ကြည့်ခြင်း၊ မှတ်တမ်းတင်ခြင်းနှင့် အစီရင်ခံခြင်းလိုအပ်ချက်များအားလုံးကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) မှ အသေးစိတ်ဖော်ပြထားသည်။

စာရင်းစစ်ခြင်းနှင့် ပြန်လည်သုံးသပ်ခြင်း

စီမံကိန်းလုပ်ဆောင်ချက်၏ သိသာထင်ရှားသော ပတ်ဝန်းကျင်ဆိုင်ရာရှုထောင့်အားလုံးကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) မှ ဖုံးလွှမ်းထားသည်ကို အတည်ပြုနိုင်ရန်အတွက် ပတ်ဝန်းကျင်ဆိုင်ရာစွမ်းဆောင်ရည်စစ်ဆေးခြင်းကို ဆောင်ရွက်သွားပါမည်။ ထို့အပြင် ပတ်ဝန်းကျင်ဆိုင်ရာစွမ်းဆောင်ရည်စံနှုန်းများကို အကောင်အထည်ဖော်လျက်ရှိပြီး စဉ်ဆက်မပြတ် တိုးတက်မှုနှင့် လိုက်လျောညီထွေမှုမရှိသောအခွင့်အလမ်းများ ဖော်ထုတ်နိုင်ကြောင်းကိုလည်း အတည်ပြုသွားမည်ဖြစ်သည်။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အကောင်အထည်ဖော်ရန် လိုအပ်သည့် အဖွဲ့အစည်း၊ ပုဂ္ဂိုလ်နှင့်အသုံးစရိတ်လျာထားမှု

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အကောင်အထည်ဖော်ရန် လိုအပ်သည့် အဖွဲ့အစည်း

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အကောင်အထည်ဖော်သည့် အဖွဲ့၏ အဓိက တာဝန်ရှိသူများအဖြစ် အောက်ပါအတိုင်းသတ်မှတ်ထားပါသည် -

မန်နေးဂျင်းဒါရိုက်တာ - ပတ်ဝန်းကျင်ဆိုင်ရာလုပ်ဆောင်ချက်များအတွက် တာဝန်ရှိခြင်း
ဒါရိုက်တာ - လုပ်ငန်း၏ ယူနစ်များအတွင်း EMP ထိရောက်စွာ အကောင်အထည် ဖော်ခြင်း အတွက် တာဝန်ရှိခြင်း
မန်နေဂျာ - EMP စီမံခန့်ခွဲမှုတာဝန်ခံ
ကျန်းမာရေး၊ ဘေးကင်းရေးနှင့်ပတ်ဝန်းကျင်ညှိနှိုင်းရေးမှူး - EMP တာဝန်ခံ (EMP ဖွံ့ဖြိုးရေး နှင့် အကောင်အထည်ဖော်ရေးတွင် အဓိကကျသည့်ပါဝင်သူ)

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် ဘဏ္ဍာငွေ

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အကောင်အထည်ဖော် ဆောင်ရွက်ရန်အတွက် သီးခြား ဘဏ္ဍာငွေအဖြစ် (ခန့်မှန်း အမေရိကန်ဒေါ်လာ ၃၀၀၀) လျာထားပါသည်။

CSR အစီအစဉ်အတွက် ဘဏ္ဍာငွေ

စီမံကိန်းအနေဖြင့် CSR အစီအစဉ်ဆောင်ရွက်ရာတွင် ဒေသခံများ၏ ပညာရေးကဏ္ဍ၊ ကျန်းမာရေးကဏ္ဍများအတွက် အထောက်အပံ့ပေးခြင်း ဆောင်ရွက်သင့်သို့ ဝန်ထမ်းများနှင့် ၎င်းတို့၏ မိသားစုဝင်များ၏ ကျန်းမာရေးဆိုင်ရာနှင့် ကျွမ်းကျင်မှုဆိုင်ရာအထောက်အပံ့များ ဆောင်ရွက်သွားမည်ဖြစ်ကြောင်း အောက်ပါအတိုင်းဖော်ပြအပ်ပါသည် -

(က) နှစ်စဉ်အမြတ်ငွေ ၂ ရာခိုင်နှုန်းမှ ၂၀ ရာခိုင်နှုန်းအား ပညာရေးကဏ္ဍအတွက်သုံးစွဲခြင်း၊
(ခ) နှစ်စဉ်အမြတ်ငွေ ၂ ရာခိုင်နှုန်းမှ ၂၀ ရာခိုင်နှုန်းအား ကျန်းမာရေးကဏ္ဍအတွက် သုံးစွဲခြင်း၊
(ဂ) နှစ်စဉ်အမြတ်ငွေ ၂ ရာခိုင်နှုန်းမှ ၂၀ ရာခိုင်နှုန်းအား လူမှုရေးကဏ္ဍအတွက် သုံးစွဲခြင်း၊
(ဃ) နှစ်စဉ်အမြတ်ငွေ ၂ ရာခိုင်နှုန်းမှ ၂၀ ရာခိုင်နှုန်းအား သဘာဝဘေးကဏ္ဍအတွက် သုံးစွဲခြင်း၊
(င) နှစ်စဉ်အမြတ်ငွေ ၂ ရာခိုင်နှုန်းမှ ၂၀ ရာခိုင်နှုန်းအား ဒေသခံလူထုကဏ္ဍအတွက် သုံးစွဲခြင်း၊

နိဂုံးနှင့် အကြံပြုချက်

နိဂုံးချုပ်အနေဖြင့် ဖော်ထုတ်သတ်မှတ်လိုက်သော သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုများစွာကို ရင်းနှီးမြှုပ်နှံမှုများအား ကောင်းမွန်စွာဂရုတစိုက်စီရင်ဆုံးဖြတ်ခြင်း၊ ကျွမ်းကျင်သူများနှင့် ပူးပေါင်းဆောင်ရွက်ခြင်းနှင့် တာဝန်ယူမှုရှိသောအလေ့အကျင့်များအား အကောင်အထည်ဖော် ဆောင်ရွက်ခြင်းတို့မှတဆင့် ထိရောက်စွာဖြေရှင်းနိုင်ပါသည်။ အချက်အလက်စုဆောင်းခြင်းနှင့် ကွင်းဆင်းလေ့လာမှုများတွင် စိန်ခေါ်မှုအချို့ကိုကြုံတွေ့ခဲ့ရသော်လည်း သက်ဆိုင်ရာ စပ်ဆက်သည့် ကာယကံရှင်များ၊ စည်းမျဉ်းစည်းကမ်းအာဏာပိုင်များ၊ သုတေသနအဖွဲ့အစည်းများနှင့် နီးနီးကပ်ကပ် ဆောင်ရွက်လုပ်ကိုင်ခြင်းဖြင့် အဆိုပါကန့်သတ်ချက်များကို ကျော်လွှားနိုင်ပြီး ကုမ္ပဏီ၏ သဘာဝ ပတ်ဝန်းကျင်ဆိုင်ရာ ပဏာမခြေလှမ်းများကို ပြန်လည်ပြင်ဆင်နိုင်မည်ဖြစ်သည်။

1.0 Executive Summary

Purpose and Scope of EMP

Sweet Angle Company Limited has prepared an Environmental Management Plan (EMP) for its Plastic Injection Molding Project, covering the development, operation, and abandonment phases. This EMP is submitted to the Environmental Conservation Department (ECD) of the Ministry of Natural Resources and Environmental Conservation (MONREC) to comply with the Environmental Impact Assessment Procedure. The company aims to obtain an Environmental Compliance Certificate (ECC) to operate under Myanmar's environmental laws and regulations, with assistance from Dr. Zin Min and other consultants.

The specific objectives of this report are to:

- Identify planned activities and potential unplanned events.
- Establish an environmental baseline for the project area.
- Assess potentially significant impacts.
- Recommend mitigation measures.
- Propose a monitoring plan to ensure compliance with Myanmar legislation.

Background of EMP

The Government of the Republic of the Union of Myanmar (hereinafter referred to as Myanmar) is encouraging investors to develop businesses under the administration of the Shwe Pyi Thar Industrial Zone. Sweet Angle Company Limited is investing in the Manufacturing of Plastic Box, Basket and Can with Lid Injection Molding Project.

The Director of Sweet Angle Company Limited has submitted a project proposal to the Environmental Conservation Department (ECD) to obtain environmental comments for conducting an environmental management plan. The ECD then instructed the proposed project to conduct an environmental management plan with Letter No. YaKa/EIA/2(2321/2024). (See Annexure -1)

Project Description

The project involves establishing a factory to produce 26.338 Ton of plastic Box, Basket and Can with Lid cover annually. The goals are to produce quality products, improve domestic production, reduce imports, promote the domestic plastic market, and comply with Myanmar laws and regulations.

Project Name	Plastic Box, Basket and Can with Lid Injection Molding Factory
Location	No.104, Set Mhu 7th street, Shwe Pyi Thar Industrial Zone 1, Shwe Pyi Thar Township, Yangon Region.
Investor	Sweet Angle Company Limited
	U Nay Lin Htike Director Kyan Sit Thar Quarter, Tide Gyi Township
Investment	20,000,000 kyat
No. of Building	19625 m^2 Steel Structure Building 1 Nos
Area	1.377 acre
No. of Employee	12 person (Local)
Contact Person	U Zaw Min Htet Production Manager 095199994 No.104, Set Mhu 7th street, Shwe Pyi Thar Industrial Zone 1, Shwe Pyi Thar Township, Yangon Region.

The project has three phases: development, operation, and abandonment. The development phase is complete, and the project is currently in the operation phase. The main facility is a 19625 square meter, single-story steel building, with additional structures already installed.

Phase	Commence	Duration	Note
Development	-	-	100% completed in 2022
Operation	2022	20 Years	On going
Abandonment	TBA	3-6 months	N/A

Plastic raw material (Glue seed-PP) will be imported from China, while other materials will be sourced locally. The factory will produce 26.338 Ton of plastic Box, Basket and Can with Lid annually, Cake Basket, 3 liter Can & Lid (Set), Soap Box (Set) and 2.3 kg bucket & Lid (Set). The manufacturing process involves four stages: Mixing, Heating and Melting, Molding and Packing.

Annual water consumption is 60,000 gallons, sourced from groundwater. Power consumption is 36,500 kWh per year, supplied by the National Power Line. Fuel consumption is 105,300 gallons annually, mainly for transportation and backup generators.

The factory generates plastic scrap waste and small amounts of general solid waste. No wastewater is produced from the manufacturing process, and no hazardous waste is generated during normal operations. However, automotive and electronic waste may result from maintenance activities.

Description of Existing Environment

The environmental study team collected comprehensive baseline data in Shwe Pyi Thar Township, including physical, biological, socio-economic, and cultural aspects. Field surveys in September 2024 assessed soil, water, air quality, noise levels, and flora/fauna. Soil and water samples were analyzed, showing compliance with national environmental standards. Ambient air quality and noise levels were also within acceptable limits.

The project site is located at , surrounded by various factories and natural features. The study area covers a 200-meter radius around the project site. No.104, 7th street, Shwe Pyi Thar Industrial Zone 1, Shwe Pyi Thar Township, Yangon Region, with an area of 25.76 square miles, has a hot and humid climate and is primarily covered by Quaternary alluvium sediment. Key hydrological features include the Hlaing River (WahTaYar River). The natural vegetation includes species like Kyun and Mangrove, with no wildlife recorded.

Economically, Shwe Pyi Thar Township is developed, with most residents engaged in industrial and trading businesses. The township has robust transportation infrastructure and hosts four industrial zones. The average per capita income in 2022-2023 was approximately 3,074,520 kyats, with an unemployment rate of 8.35%.

Shwe Pyi Thar Township's domestic water supply comes from the township's development committee system and tube wells. Electricity is provided by the national grid, covering all areas, including industrial zones. Waste management is overseen by the Yangon City Development Committee (YCDC).

The township has five high schools, eight middle schools, eleven primary schools, and one nursery schools, and one universities. There are one hospitals serving the Shwe Pyi Thar Township which was composed with 23 quarters, 4 village tracts and 5 villages. The literacy rate is 97.96%. with a school enrollment rate of 96% and a matriculation pass rate of 43.86% in 2021-2022.

In 2023, there were 1333 births and 558 deaths. Common health issues include diarrhea, tuberculosis, and dysentery. Nature Park sites in the township include the Yangon Hlawga National Park is an open zoo.

Identification and Assessment of Potential Environmental Impacts

Identification and assessment of potential Environmental Impacts including assessment and description of Adverse Impacts and Residual Impacts with presentation of the spatial and temporal characteristics of the impacts using maps, images, aerial photos and satellite images are present in below and detailed are in Section – 5.

Screening of Potential Environmental Risk and Mitigation Measures

Screening

Screening of environmental impacts has been based on the impact magnitude (negligible/ moderate/ severe – in the order of increasing degree) and impact duration (temporary/ permanent). During the development, operation and abandonment phase of a project, there may be significant and non-significant impacts on the environment and socio-economics according to the activities of the project.

Table 1.1: Sources for Potential Environmental Impacts

Facts of Potential Environmental Impacts	Description
Energy Cosumption	power(electrical) consumption for machinery and Lighting
Raw Materials Consumption	plastic materials
Gases Emission	dust, fumes, VOC, CO, CO_2
Noise Emission	running machineries and sometime generator running
Water Consumption	domestic water using by employees
Wastewater Discharging	discharging of domestic wastewater from washing and toilet usage by employees
General Solid Waste	plastic pieces, paper, cardboard, food waste, domestic waste
Hazardous waste	machine oil, engine oil, lubricants and residual fuel

The environmental and socio-economic impacts of the project during construction, operation and decommissioning are identified as follows:

Potential Impacts		
Impact on humans	Environmental Impacts	Discharging/Emission
1. Social	1. Air	1. Solid waste
2. Health	2. Water	2. Liquid waste
3. Economic	3. Soil	3. Emission gas
4. Disaster	4. Noise/Vibration	4. Hazardous waste

Environmental Assessment & Mitigation Measure

The objective of environmental impact assessment is to identify risks and to measure associated impacts which may arise from project activities, and to eliminate, control or mitigate the risk to environment.

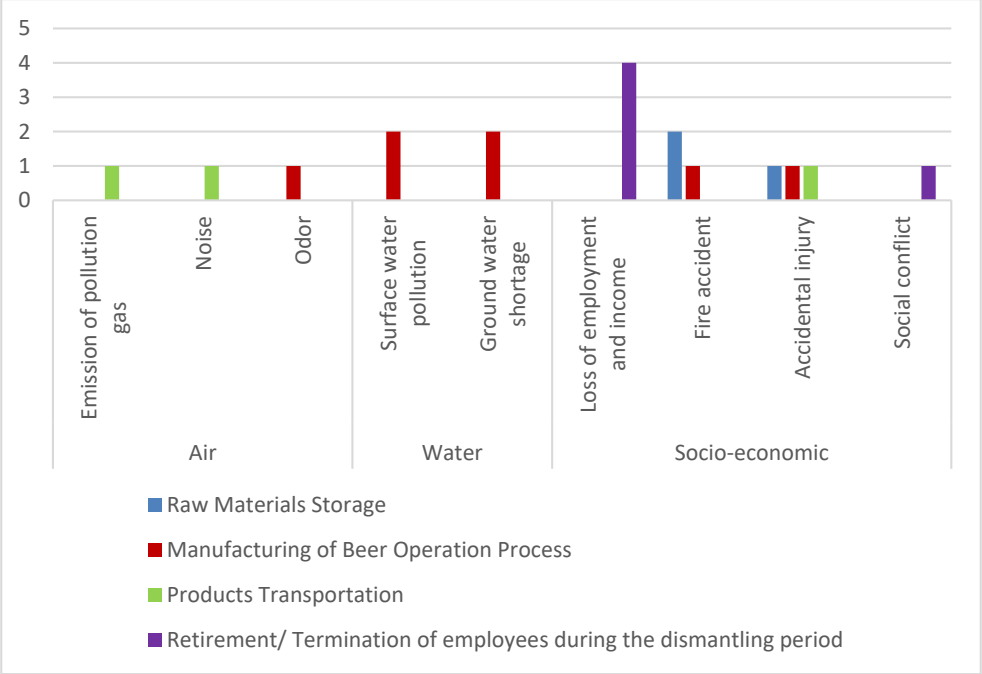
Potential Environmental Impact

The potential environmental impacts and mitigation measures of all the components for Proposed Project are presented detailed in the report. Identification Potential Risk and Impact which may come from project activities is described as:

Phase	Activity	Risk	Impact
Development	Location	Land Acquisition, Force	Social
	Design	Relocation	Historical, Cultural
	Construction	View	Environmental
		Noise, Dust, Pollution, Waste	Social
	Installation	Conflict	Environmental
		Noise, Dust, Pollution, Waste	Social
		Conflict	
Operation	Operation	Waste	Environmental
		Conflict,	Social
	Maintenance	Noise, Dust, Pollution, Waste	Environmental
		Conflict	Social
	Services	Conflict,	Social
Abandonment	Termination	Conflict,	Social

Summary of Environmental Risk & Impacts Assessment

The potential impacts arising from the proposed project can be categorized as having Low residual risk levels. No residual risks were assessed as Medium, High or Severe. Table 5.5 presents a summary of the assessed level of residual (post-mitigation) environmental risk associated with the project activity. Table 5.6 & 5.7 also summarizes the key mitigation strategies and measures that SACL and the contractor(s) will implement during the development activity to ensure that impacts are either eliminated or reduced to levels that are environmentally sound and acceptable.



Summary of Environmental and Socio-Economic Impact Assessment Chart

Results of the Public Consultation and Public Participation Processes

Results of the public consultation and public participation processes, recommendations received from the public, and the Project Proponent's written responses to comments received during that process are described in here and detailed in Section – 6.

Public Consultation and Information Disclosure

Consultations with stakeholders on environmental issues have been taken up as an integral part of the process. These consultations provided inputs to the various sector specialists in identification of the felt needs of the communities, and the relevant stakeholders.

The outputs of the consultation sessions are documented in on Stakeholder Consultations. Consultations were held with the following stakeholders:

- Officials of Union Government Departments;
- Officials of Regional Government Departments; and
- Local Communities; SACL staff
- Local Authority of Industrial Zone Committee
- Contractors and employee, investors adjacent to factory and,
- Local Communities; adjacent/around of the project factory area

Outcomes from Public Consultation

These issues raised during public consultation, together with the findings of the baseline data gathering, have been considered when compiling the EMP. MONREC has approved the proposed project to invest and operate by following rules & regulations, and procedures & standing instructions. MONREC provided details on the regulatory submission and approvals process.

There is no objection from the authorities of host country in general as well as no complaint received from staff regarding the current manufacturing and marketing operation while study team consulting during assessment period. Providing necessary skill factory training as of voluntary nomination system for the eligible staff to develop local staff is built in as ongoing process throughout project period.

As per Myanmar regulations, this prepared EMP Report will be made available for public comment. The full report will be made available to the public in English and a non-technical summary will be made available in Myanmar. The report will be disclosed to stakeholders, at proposed project factory and at SACL office in Yangon.

EMP

Policy and Objective of EMP

A Project-specific Environmental Management Plan (EMP) has been prepared for the proposed project. The EMP aims to provide an environmental management framework by outlining the compliance requirements, mitigation measures and monitoring programs to be undertaken throughout the project period.

Roles and Responsibilities

The EMP describes the key roles and responsibilities for all personnel (SACL and contractors) who will be involved in the Project.

Planning and Implementation

The EMP has been prepared based on the findings of this EMP and describes management measures designed to mitigate potential environmental impacts of the

proposed project and associated to levels that are considered to be and acceptable. EMP will be regularly reviewed and updated to suit with project requirements.

Monitoring, Record Keeping and Reporting

The EMP details all of the monitoring, record keeping and reporting requirements for the proposed project associated activities in the project area.

Auditing and Review

Environmental performance auditing will be undertaken to confirm that all significant environmental aspects of the project activity are covered by the EMP. It will also confirm that the standards to achieve environmental performance are being implemented and identify opportunities for continuous improvement and potential non-conformances.

The Persons, Organizations and Budgets Needed for Implementation of the EMP

The Persons and Organizations for EMP Implementation

The following personnel have been identified as key person as Project Team to the implementation of EMP:

- Managing Director – Responsible for environmental performance of SACL
- Director –Responsible for effective implementation of the EMP across all operating units
- Manager – Management Champion for EMP
- Health, Safety, & Environmental (HSE) Coordinator – EMP Champion, to be the key person involved in development and implementation of EMP

Budget for Environmental Management Plan Implementation

Separated EMP budget (estimated 3000 USD) reserves from SACL Proposed Project will be used in implementation of EMP activities without fail which complying with existing laws & regulation of Myanmar. The separated and dedicated budget will be reserved by the operator to implement effective environmental management plan EMP.

Budget for CSR Plan

The Proposed Project CSR program has been outlined as per below in sponsoring educational sector, healthcare of local community as well as staff and its family by

arranging clinic & medical staff, providing necessary equipment & training which relating to proposed project throughout operational period without fail to promote CSR.

(a) 20% of 2% annual net profit for the education section
(b) 20% of 2% annual net profit for the health care section
(c) 20% of 2% annual net profit for Social Sector
(d) 20% of 2% annual net profit for Natural Disaster Sector
(e) 20% of 2% annual net profit for Local Community Sector

Conclusion and Recommendation

In conclusion, several of the identified environmental impacts can be effectively resolved through prudent investments, collaboration with experts, and the implementation of responsible practices. While some challenges in data collection and fieldwork have been encountered, working closely with relevant stakeholders, regulatory authorities, and research institutions can help overcome these limitations and refine the company's environmental initiatives.

2.0 Policy, Law and Regulation Frame Work

2.1 Applicable Laws & Regulations, Procedures & Guidelines

The Myanmar Government requires either an environmental examination or assessment for any project, depending on its scale or size. Proponents of major development projects must prepare and formally submit an Environmental Management report (EMP) report for approval by the Environmental Conservation Department (ECD). Meanwhile, existing legislation includes provisions for various ministries, each with its own conservation and protection guidelines.

The investor, SACL, must comply with the laws and regulations of the host country, the Republic of the Union of Myanmar. The implementation of the proposed project will be governed by the laws, acts, rules, procedures, policies, and regulations of the Government of the Republic of the Union of Myanmar, including those of the Union Ministries, the Ministry of Natural Resources and Environmental Conservation, the Ministry of Health and Sports, the Ministry of Labor, and the respective local authority, the Regional Government of Yangon Region. These regulations impose restrictions on activities to minimize or mitigate likely environmental impacts. The following are the recent applicable Myanmar laws, rules, and regulations related (but not limited) to the proposed project:

Table 2.1: Applicable Laws & Regulations, Procedures & Guidelines

Myanmar Laws, Acts, Rules	Description & relevant section	Date of Legislate
The Myanmar Constitution Law, (2008)	Section No.45, 349(b), 359, 389, 390 (a, b, c, d)	29.05.2008
The Environmental Conservation Law, (2012 Pyidaungsu Hluttaw Law No. 9)	Section No.7(o), 14, 15, 16 (a, b, c), 24, 32	30.03.2012
The Environmental Conservation Rules (2014 MOECAF Notification Order No.50)	Section No.55, 69	05.06.2014

Environmental Impact Assessment Procedure (2015 MOECAF Notification No.616)	Section No.102 – 110, 113, 115, 117	29.12.2015
National Environmental Quality (Emission) Guidelines (2015 MOECAF Order No.616)	Article No.9, 10, 12 & 13, (Appendix A 1 & 2.3.1.8)	29.12.2015
Natural Disaster Management Law (2013)	Section No.13 to 18,32, 35, 36 and 37	31.7.2013
Protection of Biodiversity and Protected Area Law (May 2018)	Section No.25, 31 (a to f), 34 to 36	21.05.2018
The Conservation of Water Resources and Rivers Law (2006)	Section No.8 to 24	02.10.2006
Occupational Safety and Health Law (2019 Pyidaungsu Hluttaw Law No.8)	Section No.8 to 10, 12 (a to b), 26 to 30, 31 to 33, 34, 36 (b and c), 48 to 50	15.03.2019
Working with ODS Notification (MOECAF Order No.37/2014) (25th April 2014)	To follow the law	25.04.2014
The Order on the Operation of Business Relating to Ozone Depleting Substances Notification (No. 37/2014)	To follow the law	25.04.2014
Prevention of Hazard from Danger of Chemical and Related Substances Law (2013 Pyidaungsu Hluttaw Law No, 28)	Section No.15 (b), 16, 17, 22, 23 (a), 27	26.08.2013
Prevention of Hazard from Danger of Chemical and Related Substances Rules Order No.85/2015-2016	To follow the law	12.01.2016
The Social Security Law, 2012 (Came into force on 1 April 2014)	Section No.11 (a, b), 16 to 18, 45 (a, b), 48 to 51, 53 to 54 (a), 65 to 67 (a), 69 (b) and 77, 88 (a) (1,2)	31.08.2012
The Social Security Rules (Notification No. 41/2014)	Section No.40, 41, 42 (c), 43, 45 and 47	02.04.2014
The Myanmar Investment Law, (2016)	Section No.40 – 46, 51, 65	18.10.2016

The Myanmar Investment Rules, (2017)	Section No.19, 21 to 23, 26, 35 to 43 and 62 to 67	30.03.2017
Export and Import Law (2012 Pyidaungsu Hluttaw Law No.17)	Section No.5 to 7	17.09.2012
The Factories Act No.65 (1951) (Amended)	To follow the law	20.01.2016
Private Industrial Enterprise Law (State Law & Order Restoration Council Law No. 22/90)	Article No.3, 4(b), 7(c), 13, 27	26.11.1990
Myanmar Fire Brigade Acts (2015 Pyidaungsu Hluttaw Law No.11)	Section No.25, 46-50	17.03.2015
Electricity Law (2014 Pyidaungsu Hluttaw Law No.44)	Section No.11, 14, 18 to 21 (a), 22(a), 23(a), 24 to 27, 28, 40, 44 to 53, 68	27.10.2014
The Public Health Law of the Union of Myanmar, (1972)	Section No.6 to 8, 10	12.01.1972
The Control of Smoking and Consumption of Tobacco Product Law (2006)	Section No.9	04.05.2006
The Prevention and Control of Communicable Diseases Law (1995)	Section No.8, 9	20.03.1995
The Commercial Tax Law (2015)	Section No.4, 5, 11 (a to b), 12 (a), 13 (a)	02.04.2015
The Myanmar Insurance Law. (1993)	To follow	23.07.1993
The Myanmar Engineering Council Law (2013)	Section No.34, 37	28.11.2013
The Motor Vehicle Law, (2015)	Section No.4, 5, 8, 11 to 13, 15, 45 to 57	07.09.2015
The Labor Organization Law (2011 Pyidaungsu Hluttaw Law No.7)	Section No.17 to 23, 29 to 31, 37 to 42, 43 to 50	11.10.2011
The Labor Organization Rules Order No. (1/2012)	Section No.30, 31 (a to b), 41	29.02.2012
The Settlement of Labor Dispute Law & Rule (2012 Pyidaungsu Hluttaw Law No.5)	Section No.6 to 7, 20, 25, 31 to 33, 35, 36, 45	28.03.2012
The Edited Settlement of Dispute Law (2014)	To follow the law	30.09.2014
The Minimum Wages Law (2013)	Section No.12 (a to e), 13	22.03.2013

	(a to g), 14 (a to j), 15 (a to b) and 16, 22 (a to e) and 24 (a to b),	
The Minimum Wages Rules (2013)	Section No.43 (a to l)	12.07.2013
The Minimum Wages Notification Order No.2/2018	To follow the law	14.05.2018
The Employment and Skill Development Law (2013 Pyidaungsu Hluttaw Law No, 29)	Section No.5 (a to h), 14 and 15 (a, b), 30	30.08.2013
The Workman's Compensation Act, (1923) (Amended)	To follow the law	11.5.2016
The Leave and Holidays Rules, (2018)	Section No.3, 4, 15, 17 to 21, 23 to 28, 33, 41, 42, 48, 50 and 52	26.4.2018
The Payment of Wages Law (2016 Pyidaungsu Hluttaw Law No.17)	Section No.3 (a to c), 4 (a to g), 5, 7 (a to d), 8, 9, 10 (a to h),11, 12 (a to b), 14, 22 to 23	25.01.2016
Myanmar National Building Code 2016	To follow	
The Laws & Regulation from Ministry of Planning and Finance, Ministry of Construction and Department of Urban and Housing Development	To follow	
Standing Instructions from Yangon Region Government	To follow	
The Standing Instructions from Environmental Conservation Department	To follow	
Standing Orders and Instructions from FDA, MOHS, MIC	To follow	
Rules and Regulations of Yangon Industrial Zone	To follow	

Any component included in the proposed location must comply with Myanmar's laws, standards, rules, and requirements. Key standards include those related to water quality, air quality, effluent discharge, and protected areas. Compliance is required at all stages of the project, including the development phase, operation phase, and abandonment.

The proposed project operation requires consent from MONREC for investment in operation. The EIA Notification of December 29, 2015, outlines the necessary actions to perform environmental surveys and reporting for project investments, depending on the project's scale.

However, the SACL proposed project is required to prepare an EMP as advised by the relevant authority, in compliance with Myanmar's EIA Procedures.

2.2 Policy Legal Framework, including existing applicable laws and rules, International Conventions, Treaties and Agreements, and national & international standards and guidelines

The investor of the proposed project has the duty to comply with the applicable laws, rules, regulations, procedures, guidelines, and instructions of the host country, the Republic of the Union of Myanmar. This includes standards related to Environmental Conservation, Industrial and Factory Health and Safety, Fire Risk, National Environmental Quality (Emission) Guidelines, as well as IFC and WHO guidelines.

The proposed project commits to adhering to the laws and regulations of the host country, the Republic of the Union of Myanmar. Additionally, it undertakes to comply with international conventions, treaties, agreements, and both national and international standards and guidelines without violation.

Table 2.2: International Environmental Conventions/Protocols/Agreements Signed/Ratified by Myanmar

International Environmental Conventions/Protocols/Agreement	Date of Signature	Date of Ratification	Date of Member	Cabinet Approval Date
United Nations Framework Convention on Climate Change, New York, 1992 (UNFCCC)	11-6-1992	25-11-1994 (Ratification)		41/94 9-11-1994
Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985		24-11-1993 (Ratification)	22-9-1994	46/93
Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 1987		24-11-1993 (Ratification)	22-9-1994	46/93
London Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, London, 1990		24-11-1993 (Ratification)	22-9-1994	46/93
ASEAN Agreement on Transboundary Haze Pollution	10-6-2002	13-3-2003 (Ratification)		7/2003 (27-2-2003)
Parties to the Basel Convention on the Control of transboundary Movements of Hazardous Wastes and their Disposal		6-4-2015 (Ratification)		

The project investor has undertaken to comply the above-mentioned Law, Rules & Regulations, Procedures & Guidelines etc. in accord with their relevant sections about the project and has also undertaken to comply Orders, Instructions, Regional order and instructions issued from time to time.

2.2.1 Sweet Angle Company Limited Environmental and Social Policy

SACL has prepared environmental and social policy for the operations operating by the proponent within the country. The following policy is presented as a Draft and is subject to review and confirmation by SACL.

SWEET ANGLE COMPANY LIMITED (SACL) commits to an objective of environmental excellence on the basis that this approach is:

- essential to efficient business performance,
- recognizes the company's role and responsibilities in the broader community,
- acknowledges it's environmental & corporate social responsibility commitments

"Environmental Conservation and Social Policy"

- It will take an approach that promotes sustainable development in decision making for project operation.
- It will be managed to minimize the use of human and material resources in all activities and to avoid losses.
- It will be managed to create a clean environment and a good workplace for improving the living standards of employees and occupational safety and health.

2.2.2 Commitments by Project Proponent: Sweet Angle Company Limited

SACL has committed to performing the SACL EMP for the project operation, covering all periods (development, operation, and abandonment) in accordance with EIA Procedure Section 62 and the relevant laws and regulations pertaining to Plastics Injection and Molding Factory.

Sweet Angle Co., Ltd. commits that the EMP report for the proposed project will:

- Proposed Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP Report. (Natural Disaster & Emergency Response Plan, Fire Safety Procedure and Action Plan, Social Welfare Program, Waste Management Plan.
- Completely follow policy, law, rules and regulations related to proposed project.
- Will be reviewed and revised as/when instructed to do so by official authority to suit with the changing modern technology in industry
- Covering to minimize and mitigate socio economic impacts which may cause by project abandonment activities

Project proponent; SACL, has confirmed that above mentioned facts and data are correct. (Signed commitment letter is also presented in Attachment).

2.2.3 Commitment by Third Party

Dr. Zin Min and members of environmental study team commits in respect of the proposed project that the EMP report has been:

- presented in a manner which is accurate and complete:
- prepared in accordance with the requirements of applicable laws, consistence with Environmental Impact Assessment Procedure, and
- prepared under the guidance of the Ministry of Natural Resources and Environmental Conservation (MONREC).

Third Party; Dr. Zin Min and consultants has confirmed that above mentioned facts are correct. (Signed commitment letter is also presented in Attachment).

2.2.4 Contractual and other Commitments

SACL has undertaken to operate the proposed project operation on the developed granted land under permit agreement between land developer; and proposed project proponent; Sweet Angle Co., Ltd. (SACL).

SACL has undertaken to operate the proposed project operation on the granted land.
SACL has undertaken to perform EMP on project throughout the project period (development, operation & abandonment phases) prepared by third party study team according to existing relevant Laws & Regulation of Myanmar.

SACL has undertaken to ensure clear from Public & Occupational Health and Safety issues throughout its proposed project operations to operate Beer Production and Beverages Factory according to Myanmar Occupational Health & Safety Law for the proposed project.

SACL has undertaken to ensure clear from electricity safety issues according to 2014 The Electricity Law for alternative electricity power utilization from its own standby generator.

SACL has undertaken to follow standing instruction from government officials; local, regional, union level.

SACL has undertaken to apply prepared effective management systems; environmental management plan, natural disaster & emergency responding management system, fire safety & responding system, social & cultural awareness programs, throughout project period.

SACL has undertaken to pay tax and charges as defined under Myanmar Tax Laws and promise to undertake responsibility without fail.

SACL has also undertaken to submit EMP performance report to State Office of ECD (Yangon) in 6 monthly (or) as instructed by Head Office of ECD (Nay Pyi Taw).

SASCL has undertaken to follow the commitment from below table;

No.	Section	Commitment	Description (Chapter)
1.	Commitment	✓ Proposed Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP report. ✓ will be reviewed and revised as/when instructed to do so by official authority to suit with the changing modern technology in industry ✓ covering to minimize and mitigate socio economic impacts which may cause by project abandonment activities	Chapter - 2
2	Policy, Legal and Institutional Framework	✓ has also undertaken to comply International Environmental Conventions, Protocols/Agreements Signed/Ratified by Myanmar ✓ The project will be implemented in accordance with the relevant laws, rules, procedures and guidelines issued by Union of Myanmar	Chapter - 2
3	Compliance with standards	✓ has also undertaken to comply National Environmental Quality (Emission) Guidelines (2015) ✓ The production processes will be manufactured in accordance with international standards.	Chapter - 2 Chapter - 3
4	Air	✓ Emissions will be discharged in accordance with the National Environmental Quality (Emission) Guidelines (2015)	Chapter (2) and (4)

5	Water	✓ Wastewater will be discharged in accordance with the National Environmental Quality (Emission) Guidelines (2015)	Chapter (2) and (4)
6	Noise	✓ Planning to minimize vehicle use; Regular maintenance of equipment will be carried out to minimize noise emission. ✓ Actions will be taken not to exceed the noise level of National Environmental Quality (Emissions) Guidelines (2015).	Chapter (2) and (4)
7	Waste Management	✓ Dispose according to the waste management plan, Reduce, Reuse, recycle processes will be implemented. ✓ Engine oil Lubricant Greases and hazardous wastes will be kept separately and will be disposed of by communicating with the relevant Township Development Committee.	Chapter (3)
8	Public Consultation	✓ Project Disclosures and Notifications are published from time to time and We will take advice from the public and experts	Chapter (6)

		✓ We will cooperate with the relevant authorities on the business inspections.	
9	Implementation of EMP	✓ A team will be formed to implement the environmental management plan, which includes relevant persons from the project. ✓ Environmental monitoring will be regularly measured and reported to relevant departments once (6) months.	Chapter (7)

3.0 PROJECT DESCRIPTION

3.1 Project Introduction

The proposed project aims to establish an injection molding factory dedicated to producing plastic cans, baskets, buckets, and boxes, with an annual production capacity of approximately 26 tons. The product range includes items such as cake baskets, 3-liter cans with lids (set), soap boxes (set), and 2.3 kg buckets with lids (set). All products will be manufactured exclusively for domestic use.

Sweet Angle Co., Ltd. has developed this project with the goals of producing high-quality products, enhancing domestic production, reducing reliance on imported substitutes, promoting the local mass market for plastic products, and ensuring timely delivery to customers at competitive prices, all while operating in compliance with Myanmar laws and regulations.

Table 3.1: Project Brief Description

Project Name	Plastic (Cans, Baskets, Buckets and Boxes) Injection Molding Factory
Location	No.104, Set Mu 7th street, Shwepyithar Township, Yangon Region
Investor	Sweet Angle Company Limited
	U Nay Lin Htike Director Kyan Sit Thar Quarter, Tide Gyi Township
Investment	20,000,000 kyat
No. of Building	19265 m^2 , Steel Structure Building 1 Nos
Area	1.377 acre
No. of Employee	12 person (Local)
Contact Person	U Zaw Min Htet Production Manager 0951999994 No.104, Set Mu 7th street, Shwepyithar Township, Yangon Region

SACL was incorporated under the Myanmar Companies Act with certification No. 118861442 on 22.2.2019. SACL has registered at Directorate of Investment and Company Administration (DICA), Ministry of Investment and Foreign Economic Relations (MIFER) for the business mentioned below accordingly under Myanmar Laws & Regulations:

ကုမ္ပဏီမှတ်ပုံတင်လက်မှတ်

Certificate of Incorporation

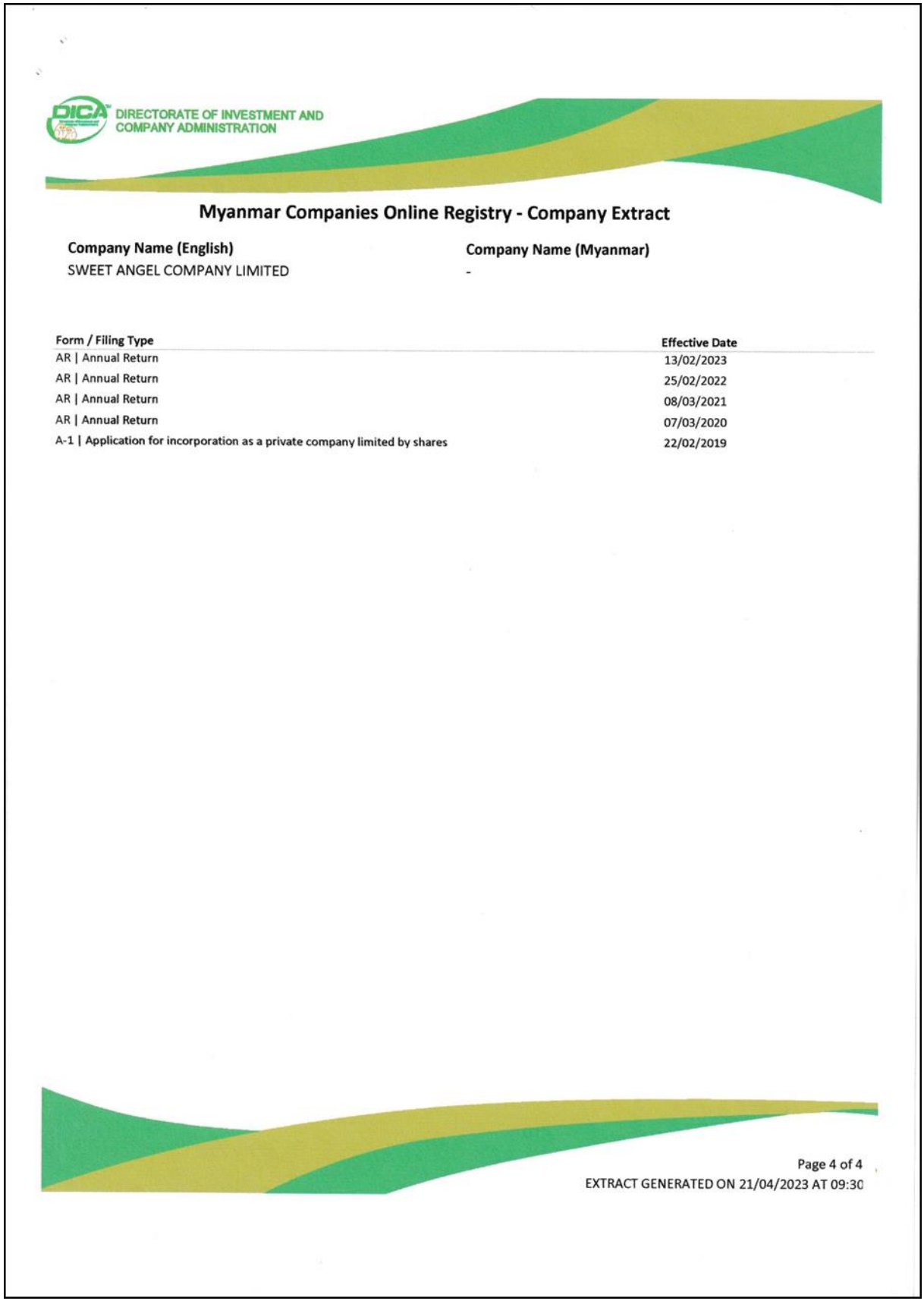
SWEET ANGEL COMPANY LIMITED
Company Registration No. 118861442

မြန်မာနိုင်ငံကုမ္ပဏီများဥပဒေ၂၀၁၇ အရ
SWEET ANGEL COMPANY LIMITED
အား ၂၀၁၉ ခုနှစ် ဖေဖော်ဝါရီလ ၂၂ ရက်နေ့တွင်
အစုရှယ်ယာအားဖြင့် တာဝန်ကန့်သတ်ထား သည့် အများနှင့်မသက်ဆိုင်သောကုမ္ပဏီ
အဖြစ် ဖွဲ့စည်းမှတ်ပုံတင်ခွင့်ပြုလိုက်သည်။

This is to certify that
SWEET ANGEL COMPANY LIMITED
was incorporated under the Myanmar Companies Law 2017 on 22 February 2019 as a Private Company Limited by Shares.

ကုမ္ပဏီမှတ်ပုံတင်အရာရှိ
Registrar of Companies
ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန
Directorate of Investment and Company Administration

Figure 3.1: Certificate of Incorporation



DIRECTORATE OF INVESTMENT AND COMPANY ADMINISTRATION

Myanmar Companies Online Registry - Company Extract

Company Name (English)	Company Name (Myanmar)
SWEET ANGEL COMPANY LIMITED	-

Form / Filing Type	Effective Date
AR | Annual Return	13/02/2023
AR | Annual Return	25/02/2022
AR | Annual Return	08/03/2021
AR | Annual Return	07/03/2020
A-1 | Application for incorporation as a private company limited by shares	22/02/2019

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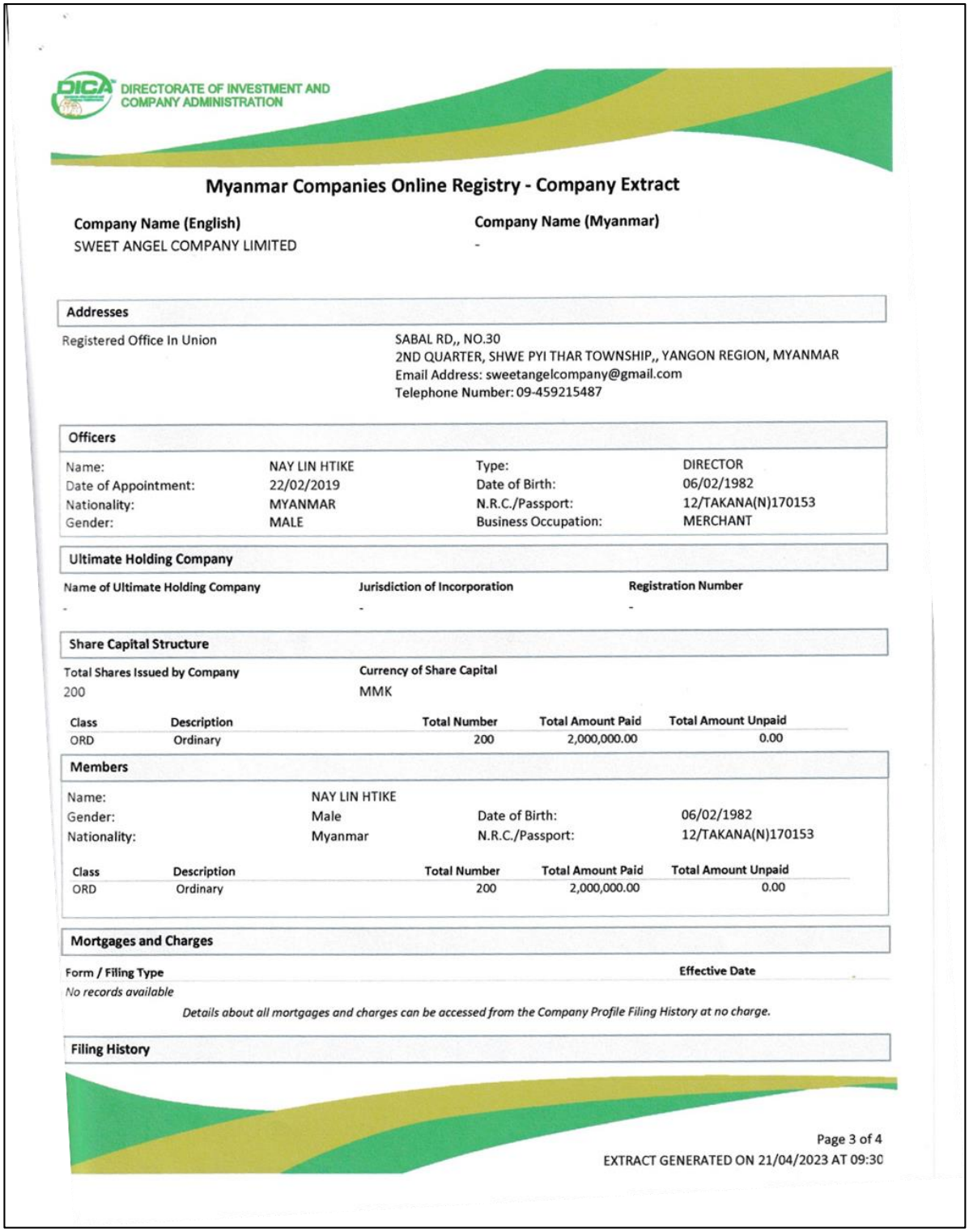
Figure 3.2: Effective Date

The following company incorporated under Myanmar Companies Act is Principal Organization; company named as "Sweet Angle Company Limited" to operate in accordance with the Investment Law for the proposed project "Plastic Injection and Molding Factory".

Company	Address
Sweet Angle Company Limited Reg.No. 118861442	No.104, Set Mhu 7th street, Shwepyithar Township, Yangon Region
	Contact Person U Zaw Min Htet Production Manager 0951999994 technical.soap@cg-m.com No.104, Set Mhu 7th street, Shwepyithar Township, Yangon Region

Sweet Angle Company Limited will be functioned as an administrative body of the Plastic Injection and Molding Factory under the direction of investors of SACL. The investors operate through appointed director and staff. The mentioned below investors are registered as directors in the certificate of incorporation according to Myanmar Companies Act.

Name	Nationality, NRC Card No. / Passport No.	Position
U Nay Lin Htike	Myanmar/India (12/Takana (N)	Director
U Zaw Min Htet	Myanmar (7/Pamana(N) 142874)	Production Manager



DIRECTORATE OF INVESTMENT AND COMPANY ADMINISTRATION

Myanmar Companies Online Registry - Company Extract

Company Name (English)
SWEET ANGEL COMPANY LIMITED

Company Name (Myanmar)
-

Addresses

Registered Office In Union
SABAL RD,, NO.30
2ND QUARTER, SHWE PYI THAR TOWNSHIP,, YANGON REGION, MYANMAR
Email Address: sweetangelcompany@gmail.com
Telephone Number: 09-459215487

Officers

Name:	NAY LIN HTIKE	Type:	DIRECTOR
Date of Appointment:	22/02/2019	Date of Birth:	06/02/1982
Nationality:	MYANMAR	N.R.C./Passport:	12/TAKANA(N)170153
Gender:	MALE	Business Occupation:	MERCHANT

Ultimate Holding Company

Name of Ultimate Holding Company	Jurisdiction of Incorporation	Registration Number
-	-	-

Share Capital Structure

Total Shares Issued by Company: 200
Currency of Share Capital: MMK

Class	Description	Total Number	Total Amount Paid	Total Amount Unpaid
ORD	Ordinary	200	2,000,000.00	0.00

Members

Name:	NAY LIN HTIKE		
Gender:	Male	Date of Birth:	06/02/1982
Nationality:	Myanmar	N.R.C./Passport:	12/TAKANA(N)170153

Class	Description	Total Number	Total Amount Paid	Total Amount Unpaid
ORD	Ordinary	200	2,000,000.00	0.00

Mortgages and Charges

Form / Filing Type — Effective Date

No records available

Details about all mortgages and charges can be accessed from the Company Profile Filing History at no charge.

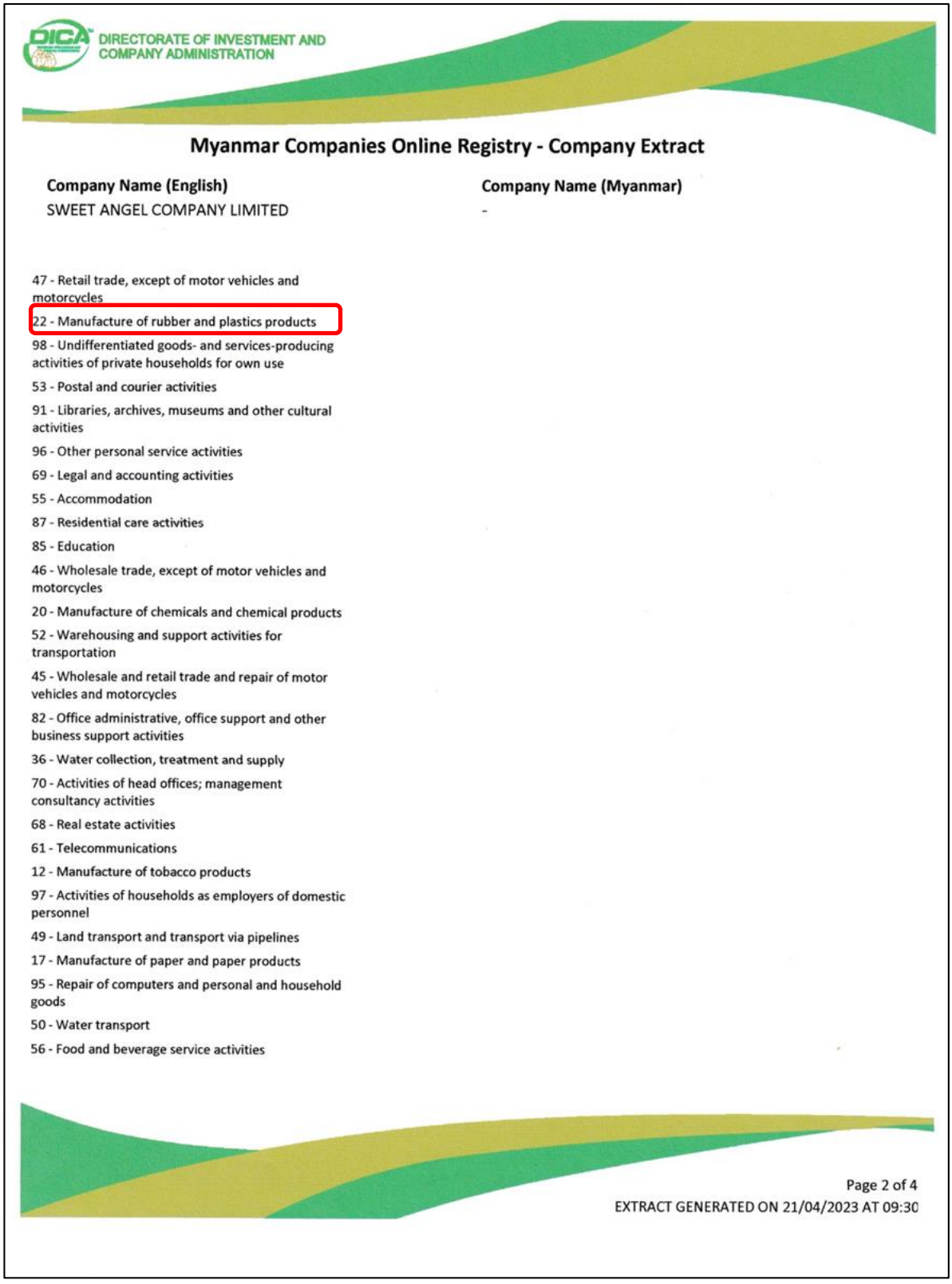
Filing History

Page 3 of 4
EXTRACT GENERATED ON 21/04/2023 AT 09:30

Figure 3.3: Registered Relevant Person of Sweet Angel Co., Ltd.

SACL was incorporated under the Myanmar Companies law on 22nd, February 2019 as a Private Company Limited by Shares with certificate of incorporation No.118861442 at Directorate of Investment and Company Administration for the below principal activity:

22 – Manufacture of Rubber and Plastic



DIRECTORATE OF INVESTMENT AND COMPANY ADMINISTRATION

Myanmar Companies Online Registry - Company Extract

Company Name (English)	Company Name (Myanmar)
SWEET ANGEL COMPANY LIMITED	-

47 - Retail trade, except of motor vehicles and motorcycles
22 - Manufacture of rubber and plastics products
98 - Undifferentiated goods- and services-producing activities of private households for own use
53 - Postal and courier activities
91 - Libraries, archives, museums and other cultural activities
96 - Other personal service activities
69 - Legal and accounting activities
55 - Accommodation
87 - Residential care activities
85 - Education
46 - Wholesale trade, except of motor vehicles and motorcycles
20 - Manufacture of chemicals and chemical products
52 - Warehousing and support activities for transportation
45 - Wholesale and retail trade and repair of motor vehicles and motorcycles
82 - Office administrative, office support and other business support activities
36 - Water collection, treatment and supply
70 - Activities of head offices; management consultancy activities
68 - Real estate activities
61 - Telecommunications
12 - Manufacture of tobacco products
97 - Activities of households as employers of domestic personnel
49 - Land transport and transport via pipelines
17 - Manufacture of paper and paper products
95 - Repair of computers and personal and household goods
50 - Water transport
56 - Food and beverage service activities

Page 2 of 4
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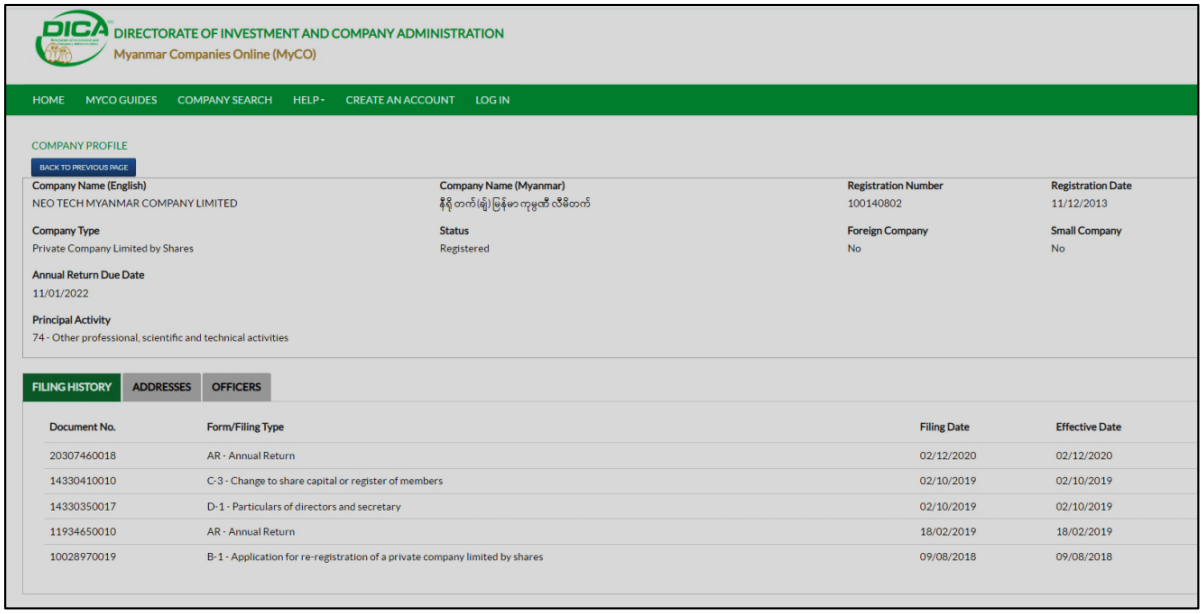
Figure 3.4: Principle Activities for Sweet Angel Co., Ltd.

3.2 Presentation of Environmental Consultant

SACL has assigned environmental study team of NeoTech Myanmar Co. Ltd. in September 2024 to conduct environmental assessment and to prepare environmental management plan for the Proposed Project according to EIA procedures. The data of NeoTech Myanmar Co', Ltd. and its Environmental Study Team organized to conduct environmental assessment and to prepare on EMP of proposed project are detailed as follows;

NeoTech Myanmar Company Limited is a Private Company Limited by Shares; registered in DICA since 11.12.2013 and incorporated with registration no. 100140802 according to Myanmar Companies Law for Principal Activity; 74 - Other professional, scientific and technical activities.



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

HOME MYCO GUIDES COMPANY SEARCH HELP CREATE AN ACCOUNT LOG IN

COMPANY PROFILE

BACK TO PREVIOUS PAGE

Company Name (English)	Company Name (Myanmar)	Registration Number	Registration Date
NEO TECH MYANMAR COMPANY LIMITED	နီရို တက်(မြို)မြန်မာ ကုမ္ပဏီ လီမိတက်	100140802	11/12/2013
Company Type	**Status**	**Foreign Company**	**Small Company**
Private Company Limited by Shares	Registered	No	No

Annual Return Due Date
11/01/2022

Principal Activity
74 - Other professional, scientific and technical activities

FILING HISTORY | ADDRESSES | OFFICERS

Document No.	Form/Filing Type	Filing Date	Effective Date
20307460018	AR - Annual Return	02/12/2020	02/12/2020
14330410010	C-3 - Change to share capital or register of members	02/10/2019	02/10/2019
14330350017	D-1 - Particulars of directors and secretary	02/10/2019	02/10/2019
11934650010	AR - Annual Return	18/02/2019	18/02/2019
10028970019	B-1 - Application for re-registration of a private company limited by shares	09/08/2018	09/08/2018

Table 3.2: Third Party Information

Environmental Study Team Leader	Contact Address
NeoTech Myanmar Co., Ltd. DICA Reg. No. (100140802) EIA-CO(A)010/2024 Dr. Zin Min (Managing Director) Ph.D. (Environmental Science) Geological Assessment EIA-C 032/2023 (1.12.2023)	No. 218 Tabin Shwe Hti Street, 34 Ward, New Dagon North Township, Yangon, 11421. Tel: +959-5026221, +959-5026223 Fax: 951-584126 e-mail: neotechmyanmar.pc@gmail.com Contact Person Daw Nu Nu Aye Tel: 959-5026221, e-mail: nunuayeygn@gmail.com

Neo Tech Myanmar Company Limited is also registered in ECD since 2017 and ECD issued Environmental Impact Assessment License on 26.9.2024 with ECD License Number EIA-CO(A)010/2024 to identify as third-party expert to conduct as a Consulting Organization Type (A) under the Licensing Procedure for the Third Persons or Organizations Undertaking Initial Environmental Examination, Environmental Impact Assessment, and Environmental Management Plan Study for the Project required to prepare as defined in EIA Procedure.

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ

The Government of the Republic of the Union of Myanmar

သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန

Ministry of Natural Resources and Environmental Conservation

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

Environmental Conservation Department

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ငန်းလိုင်စင် (အဖွဲ့အစည်း)

Environmental Impact Assessment License (Organization)

Neo Tech Myanmar Co.,Ltd ကုမ္ပဏီမှတ်ပုံတင်အမှတ်- ၁၀၀၁၄၀၈၀၂ အား **အကြံပေး အဖွဲ့အမျိုးအစား**(က) အဖြစ် လုပ်ကိုင်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ငန်းလိုင်စင်ကို ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းပြုလုပ်သည့် တတိယပုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့အစည်းလုပ်ငန်းလိုင်စင်ဆိုင်ရာ လုပ်ထုံးလုပ်နည်းနှင့်အညီ ဤဝန်ကြီးဌာန၏ အတည်ပြုချက်ဖြင့် ထုတ်ပေး လိုက်သည်။

It is here by issued that **Neo Tech Myanmar Co.,Ltd** ၊ Registration No.100140802 has fulfilled the requirements for obtaining an Environmental Impact Assessment License to conduct as a **Consulting Organization Type (A)** under the Licensing Procedure for the Third Persons or Organizations Undertaking Initial Environmental Examination and Environmental Impact Assessment, approved by the Ministry of Natural Resources and Environmental Conservation.

လိုင်စင်နံပါတ် License Number	: EIA-CO(A)010/2024
ထုတ်ပေးသည့် ရက်စွဲ Date of Issue	: 26-9-2024
ကုန်ဆုံးသည့် ရက်စွဲ Date of Expiry	: 25-9-2027

(သိန်းတိုး)

ညွှန်ကြားရေးမှူးချုပ်

Neo Tech Myanmar Co.,Ltd

လိုင်စင်နံပါတ် License Number : EIA-CO(A)010/2024

(က) အဓိကအကြံပေးပုဂ္ဂိုလ်များ

စဉ်	အမည်	လုပ်ငန်းလိုင်စင်အမှတ်	မှတ်ချက်
၁	၂	၃	၄
(က) အကြံပေးပုဂ္ဂိုလ်			
၁	ဒေါက်တာဇင်မင်း	EIA-C 033/2023	
၂	ဦးခင်မောင်မျိုး	EIA-C 034/2023	
(ခ) တွဲဖက်အကြံပေးပုဂ္ဂိုလ်			
	မရှိပါ		

(ခ) အဓိကမဟုတ်သော အကြံပေးပုဂ္ဂိုလ်များ

စဉ်	အမည်	လုပ်ငန်းလိုင်စင်အမှတ်	မှတ်ချက်
၁	၂	၃	၄
(က) အကြံပေးပုဂ္ဂိုလ်			
၁	ဒေါက်တာခွန်လှိုင်းမြင့်	EIA-C 032/2023	
၂	ဒေါ်နုဇ	EIA-C 035/2023	
(ခ) တွဲဖက်အကြံပေးပုဂ္ဂိုလ်			
၁	ဒေါက်တာတင်နိုင်	EIA-C 039/2023	

Table 3.3: Consultants from Environmental Study Team

Environmental Study Consultant Team Member		
No	**Consultant Name**	**Expertise Field & Working Experience**
1	U Khin Maung Myoe M.Sc. (Chemistry) M.S. (Environmental Science)	Risk Assessment and Hazard Management EIA-C 034/2023 (1.12.2023) Environmental Working experience since 1998
2	Dr. Zin Min Ph.D. (Environmental Science)	Ecology and Biodiversity EIA-C 033/2023 (1.12.2023) Environmental Working experience since 2000
3	Dr. Khun Hlaine Myint Ph.D. (Geology)	Geological Assessment EIA-C 032/2023 (1.12.2023) Environmental Working experience since 2000
4	Daw Nu Nu Aye M.Sc. (Analytical Chemistry)	Water Pollution Prevention, Control, Monitoring and Prediction of Impacts EIA-C 035/2023 (1.12.2023) Environmental Working experience since 2013
5	Dr. Tin Naing M.B.B.S., DTM&H	Health (Impact Studies and Analysis) EIA-AC 039/2023 (1.12.2023) Occupational & Industrial Health Working experience since 2013

Table 3.4: Role & Responsible Part in IEE

Assisting Member		
No	**Name**	**Roles Involved & Working Experience**
1	Dr. Zeya PhD. (Chemistry)	Waste management; Occupational health; Substance use management. Environmental Working experience since 1983
2	Dr. Tin Aye Myint PhD (Engineering Chemistry)	Occupational health; Substance use management. Environmental Working experience since 1983

3	U Hein Thike B.Sc. (Botany), Dip. In GIS	Information gathering; Field Studies; Environmental quality survey; public meeting and discussion; Report writing. Environmental Working experience since 2014
4	U Saw Hti Moo B. E. (Textile), Dip. In GIS	Field studies; Survey of current environmental quality; Public Consultation and discussion; Report writing. Environmental Working experience since 2019
5	U Zaw Bala BBA (MIT), B.A. (English), Dip. In IT (NMC)	Field studies; Survey of environmental quality; Public Consultation. Environmental Working experience since 2023
6	U Hein Htet MB.A., M.Sc. (Sustainability Management), B.A. (IR)	Field studies; Public Consultation, Report writing. Environmental Working experience since 2018
7	U Khun Sai Wan B.E. (Mechanical)	Report writing Environmental Report Writing since 2014
8	Dr. Po Po Maung Ph.D. (Environmental Law), LLM (Cooperativism in Legal, Economic and Social Affairs), LLM (Civil Law), LLB	Report writing Environmental Report Writing since 2014
9	U Aung Chan Min B.A. (Geography)	Field studies; Survey of environmental quality; Environmental Working experience since 2018

Following are the personal environmental consultant licenses issued from Environmental Conservation Department, Nay Pyi Taw.

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
The Government of the Republic of the Union of Myanmar
သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန
Ministry of Natural Resources and Environmental Conservation
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
Environmental Conservation Department
ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ငန်းလိုင်စင် (ပုဂ္ဂိုလ်)
Environmental Impact Assessment License (Individual)

ဒေါက်တာဇင်မင်း၊ ၁၂/အလန(နိုင်)၀၀၀၃၉၄ အား အကြံပေးပုဂ္ဂိုလ် အဖြစ် လုပ်ကိုင်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ငန်းလိုင်စင်ကို ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း ပြုလုပ်သည့် တတိယပုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့အစည်း လုပ်ငန်းလိုင်စင်ဆိုင်ရာ လုပ်ထုံးလုပ်နည်းနှင့် အညီ ဤဝန်ကြီးဌာန၏ အတည်ပြုချက်ဖြင့် ထုတ်ပေးလိုက်သည်။

It is hereby issued that **Dr.Zin Min, 12/AhLaNa(N)000394** has fulfilled the requirements for obtaining an Environmental Impact Assessment License to conduct as an **Consultant** under the Licensing Procedure for the Third Persons or Organizations Undertaking Initial Environmental Examination and Environmental Impact Assessment, approved by the Ministry of Natural Resources and Environmental Conservation.

လေ့လာဆန်းစစ်ခွင့်ရှိသည့် ကျွမ်းကျင်မှုနယ်ပယ်များမှာ အောက်ပါအတိုင်းဖြစ်သည်-

The areas of expertise, eligible to be conducted, are as follows:

1. ဂေဟစနစ်နှင့် ဇီဝမျိုးစုံမျိုးကွဲ (Ecology and Biodiversity)
2.
3.
4.
5.

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ထုတ်ပေးသည့် ရက်စွဲ Date of Issue : 1-12-2023
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(သိန်းတိုး)
ညွှန်ကြားရေးမှူးချုပ်

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
The Government of the Republic of the Union of Myanmar
သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန
Ministry of Natural Resources and Environmental Conservation
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
Environmental Conservation Department
ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ငန်းလိုင်စင် (ပုဂ္ဂိုလ်)
Environmental Impact Assessment License (Individual)

ဦးခင်မောင်မျိုး၊ ၁၂/အလန(နိုင်)၀၁၆၁၁၇ အား အကြံပေးပုဂ္ဂိုလ် အဖြစ် လုပ်ကိုင်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ငန်းလိုင်စင်ကို ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း ပြုလုပ်သည့် တတိယပုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့အစည်း လုပ်ငန်းလိုင်စင်ဆိုင်ရာ လုပ်ထုံးလုပ်နည်းနှင့် အညီ ဤဝန်ကြီးဌာန၏ အတည်ပြုချက်ဖြင့် ထုတ်ပေးလိုက်သည်။

It is hereby issued that **U Khin Maung Myo, 12/AhLaNa(N)016117** has fulfilled the requirements for obtaining an Environmental Impact Assessment License to conduct as an **Consultant** under the Licensing Procedure for the Third Persons or Organizations Undertaking Initial Environmental Examination and Environmental Impact Assessment, approved by the Ministry of Natural Resources and Environmental Conservation.

လေ့လာဆန်းစစ်ခွင့်ရှိသည့် ကျွမ်းကျင်မှုနယ်ပယ်များမှာ အောက်ပါအတိုင်းဖြစ်သည်-

The areas of expertise, eligible to be conducted, are as follows:

1. ဘေးအန္တရာယ်ရှိမှု ဆန်းစစ်ခြင်းနှင့် ဘေးအန္တရာယ် စီမံခန့်ခွဲခြင်း (Risk Assessment and Hazard Management)
2.
3.
4.
5.

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(သိန်းတိုး)
ညွှန်ကြားရေးမှူးချုပ်

Personal Environmental Consultant Licenses

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The Government of the Republic of the Union of Myanmar
သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန
Ministry of Natural Resources and Environmental Conservation
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
Environmental Conservation Department

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ငန်းလိုင်စင် (ပုဂ္ဂိုလ်)

Environmental Impact Assessment License (Individual)

ဒေါက်တာခွန်လိုင်းမြင့်၊ ၉/မထလ(နိုင်)၀၀၅၉၅၃ အား အကြံပေးပုဂ္ဂိုလ် အဖြစ် လုပ်ကိုင်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ငန်းလိုင်စင်ကို ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်း ပြုလုပ်သည့် တတိယပုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့အစည်း လုပ်ငန်းလိုင်စင်ဆိုင်ရာ လုပ်ထုံးလုပ်နည်းနှင့် အညီ ဤဝန်ကြီး ဌာန၏ အတည်ပြုချက်ဖြင့် ထုတ်ပေးလိုက်သည်။

It is hereby issued that **Dr.Khun Hline Myint, 9/MaHtaLa(N)005953** has fulfilled the requirements for obtaining an Environmental Impact Assessment License to conduct as an **Consultant** under the Licensing Procedure for the Third Persons or Organizations Undertaking Initial Environmental Examination and Environmental Impact Assessment, approved by the Ministry of Natural Resources and Environmental Conservation.

လေ့လာဆန်းစစ်ခွင့်ရှိသည့် ကျွမ်းကျင်မှုနယ်ပယ်များမှာ အောက်ပါအတိုင်းဖြစ်သည်-

The areas of expertise, eligible to be conducted, are as follows:

1. ဘူမိဆိုင်ရာ ဆန်းစစ်လေ့လာခြင်း (Geological Assessment)
2.
3.
4.
5.

လိုင်စင်နံပါတ် License Number : EIA-C 032/2023
ထုတ်ပေးသည့် ရက်စွဲ Date of Issue : 1-12-2023
ကုန်ဆုံးသည့် ရက်စွဲ Date of Expiry : 30-11-2026

(သိန်းတိုး)
ညွှန်ကြားရေးမှူးချုပ်

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
The Government of the Republic of the Union of Myanmar
သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန
Ministry of Natural Resources and Environmental Conservation
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
Environmental Conservation Department

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ငန်းလိုင်စင် (ပုဂ္ဂိုလ်)

Environmental Impact Assessment License (Individual)

ဒေါ်နုနု၊ ၁၂/အလန(နိုင်)၀၁၆၁၁၈ အား အကြံပေးပုဂ္ဂိုလ် အဖြစ် လုပ်ကိုင်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ငန်းလိုင်စင်ကို ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်း ပြုလုပ်သည့် တတိယပုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့အစည်း လုပ်ငန်းလိုင်စင်ဆိုင်ရာ လုပ်ထုံးလုပ်နည်းနှင့်အညီ ဤဝန်ကြီး ဌာန၏ အတည်ပြုချက်ဖြင့် ထုတ်ပေးလိုက်သည်။

It is hereby issued that **Daw Nu Nu Aye, 12/AhLaNa(N)016118** has fulfilled the requirements for obtaining an Environmental Impact Assessment License to conduct as an **Consultant** under the Licensing Procedure for the Third Persons or Organizations Undertaking Initial Environmental Examination and Environmental Impact Assessment, approved by the Ministry of Natural Resources and Environmental Conservation.

လေ့လာဆန်းစစ်ခွင့်ရှိသည့် ကျွမ်းကျင်မှုနယ်ပယ်များမှာ အောက်ပါအတိုင်းဖြစ်သည်-

The areas of expertise, eligible to be conducted, are as follows:

1. ရေထုညစ်ညမ်းမှု ကြိုတင်ကာကွယ်ခြင်း၊ ထိန်းချုပ်ခြင်း၊ စောင့်ကြပ်ကြည့်ရှုခြင်းနှင့် ထိခိုက်မှုကြိုတင်ခန့်မှန်းခြင်း (Water Pollution Prevention, Control, Monitoring and Prediction of Impacts)
2.
3.
4.
5.

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ကုန်ဆုံးသည့် ရက်စွဲ Date of Expiry : 30-11-2026

(သိန်းတိုး)
ညွှန်ကြားရေးမှူးချုပ်

Personal Environmental Consultant Licenses

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
The Government of the Republic of the Union of Myanmar
သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန
Ministry of Natural Resources and Environmental Conservation
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
Environmental Conservation Department

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ငန်းလိုင်စင် (ပုဂ္ဂိုလ်)
Environmental Impact Assessment License (Individual)

ဒေါက်တာတင်နိုင်၊ ၇/ပတန(နိုင်)၀၁၉၀၈၆ အား တွဲဖက်အကြံပေးပုဂ္ဂိုလ် အဖြစ် လုပ်ကိုင်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ငန်းလိုင်စင်ကို ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း ပြုလုပ်သည့် တတိယပုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့အစည်း လုပ်ငန်းလိုင်စင်ဆိုင်ရာလုပ်ထုံးလုပ်နည်းနှင့် အညီ ဤဝန်ကြီးဌာန၏ အတည်ပြုချက်ဖြင့် ထုတ်ပေးလိုက်သည်။

It is hereby issued that **Dr.Tin Naing, 7/PaTaNa(N)019086** has fulfilled the requirements for obtaining an Environmental Impact Assessment License to conduct as an **Associate Consultant** under the Licensing Procedure for the Third Persons or Organizations Undertaking Initial Environmental Examination and Environmental Impact Assessment, approved by the Ministry of Natural Resources and Environmental Conservation.

လေ့လာဆန်းစစ်ခွင့်ရှိသည့် ကျွမ်းကျင်မှုနယ်ပယ်များမှာ အောက်ပါအတိုင်းဖြစ်သည်-
The areas of expertise, eligible to be conducted, are as follows:

1. ကျန်းမာရေး (Health (Impact Studies and Analysis))
3.
4.
5.

လိုင်စင်နံပါတ် License Number : EIA-AC 039/2023
ထုတ်ပေးသည့် ရက်စွဲ Date of Issue : 1-12-2023
ကုန်ဆုံးသည့် ရက်စွဲ Date of Expiry : 30-11-2026

(သိန်းတိုး)
ညွှန်ကြားရေးမှူးချုပ်

Personal Environmental Consultant License

3.3 Scope of EMP

The purpose of this EMP report is to get relevant permit for the prepared EMP of the proposed project operation from relevant authority, and to take EMP implementation in its operation. Environmental study on proposed project activity scopes to prepare suitable environmental management plan based on the identified impacts (of both positive and negative) affected to the environment, human use values, quality of life and health, etc., which may come out from the project activities throughout proposed

project operation. EMP has been prepared to minimize impacts as low as reasonably practicable level (ALARP) by means of prevention, mitigation, and monitoring measures.

The specific objectives of this report are to:

- Identify all planned activities and potential unplanned events;
- Establish an environmental baseline of the project area;
- Identify and assess potentially significant impacts based on existing environmental description;
- Identify and recommend mitigation measures to minimize potential impacts;
- Recommend a monitoring plan that can track changes in the environment issues and to ensure compliance with Myanmar legislation.

This Report is confined specifically to an Environmental Management Plan for the Sweet Angle Company Limited; Plastic (Cans, Baskets, Buckets and Boxes) Injection Molding Factory (Development, operational, and abandonment phases of project) to be operated by Sweet Angle Company Limited.

3.4 Project Description

This section describes the Project description in reasonable detail with description of the project size, installations, technology, infrastructure, production processes, use of materials and resources, generation of waste, emissions and disturbances together with overview maps and site layout maps.

3.4.1 Project Implementation Schedule

Proposed project can be considered in now as 2 phases; operating phase and abandonment phase because development phase is already finished in 2021. Project implementation schedule for Plastic Injection and Molding Factory is present in below table.

Table 3.5: Project Implementation Schedule

Phase	Commence	Duration	Note
Development	-	-	100% completed in 2021
Operation	2022	20 Years	On going
Abandonment	TBA	3-6 months	N/A

3.4.2 Project Location and area

The project is located in No. No.104, Set Mu 7th street, Shwepyithar Township, Yangon Region. The land area is 1.377 acre and is excluding from forest reserve area and other local community land usage. Therefore, the proposed project area is cleared from land acquisition issue.

Figure 3.5: Project Overview Map

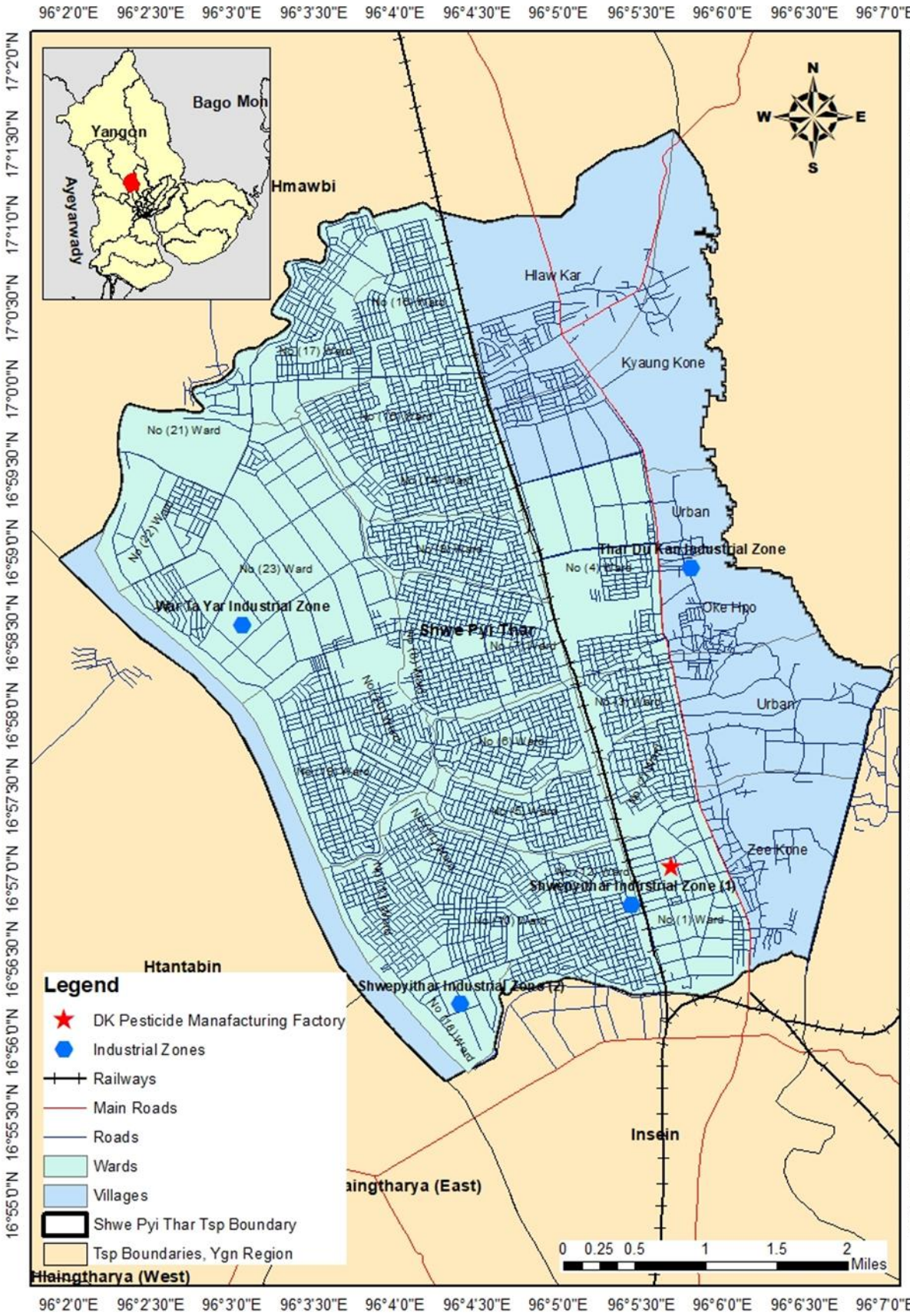


Figure 3.6: Project Location Map (16°57'05"N, 96° 05'38"E), Shwe Pyi Thar Township

3.4.3 Building/ Facilities Master Plan

The project is composed with one main 19625 square feet one floor steel structure building and is already constructed within the project boundary. Other related building and facilities are also installed in the area. Description of installed Facilities and main Building Layout Map is shown in below table and figure.

Table 3.6: Building/Facility Master Plan

Sr. No.	Facility/Building Description
1.	Factory Building (1 no) + Generator Room (1 no.) + Guard House + Groundwater Storage Tank + Concrete Fence + Concrete Floor
2.	Electrical & Auto Machinery Facility Installation
3.	Power Supply System for Normal Operation – 315 KVA Transformer (1 no.) Alternative Power Supply System (Back Up only)– 180 KVA Generator (1 no.)
4.	Domestic use Water Supply System Water Source – Groundwater (1 nos.) Operation – Compressor Pump for 6-inches tube well and pump for storage tank Storage - Utility Water / Fire Water Tank System Drinking Water – Current Practice and plan to use approved drinking water products only
5.	Storm & rainwater drainage direct connect to public drain
6.	Wastewater treatment system (filtering) before dispose to public drain
7.	Sewage Treatment System (Septic Tank)
8.	General Solid Waste Management System (Collect at Waste Storage Area and collected by YCDC); Temporary waste storage area (1 nos.)
9.	24 Hour Security (Guard) Service
10.	Fire Emergency & Disaster Management System

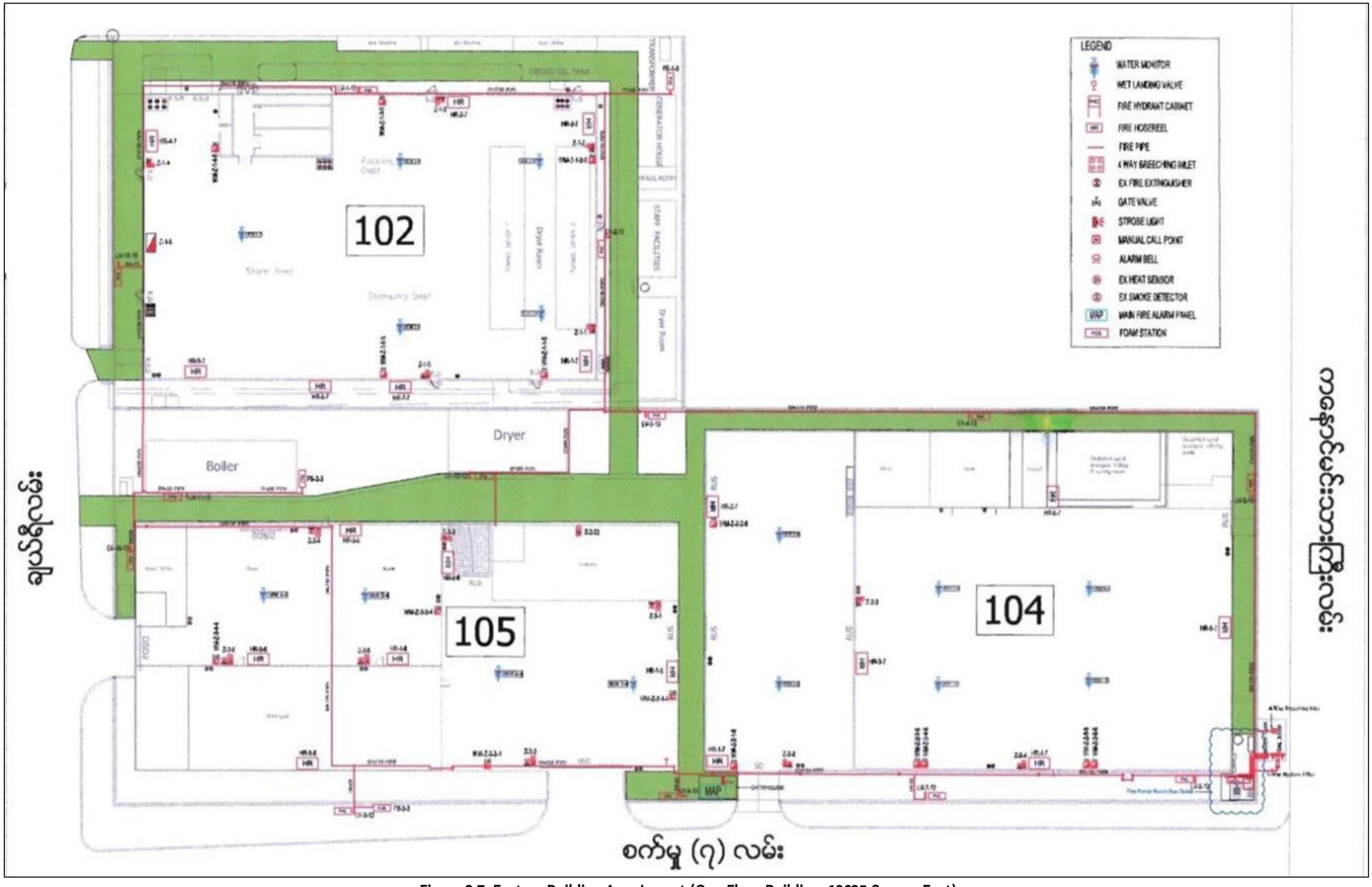


Figure 3.7: Factory Building Area Layout (One Floor Building, 19625 Square Feet)

3.4.4 Raw Materials and Chemicals Requirement

Plastic raw material (Glue seed-PP) will be imported from China. Other needed raw materials will be purchased from local merchant. Raw Material will be required for Project Operation as listed below:

Table 3.7: Raw Material/Chemical Requirement

No.	Item	Unit	Quantity for 1 Year	Local/Imported
1	Plastic Resin (M60T)	MT	13	Imported
2	Plastic Recycle (PP)	MT	5	Local
3	Colour (Black)	Kg	55	Local
4	Colour (Orange)	Kg	90	Local
5	Colour (Sparkle White)	Kg	40	Imported
6	Plastic Resign (420M0)	MT	4	Imported
7	Plastic Resign (6711)	MT	3	Imported
8	Colour (Blue)	Kg	40	Local
9	White Oil	Kg	400	Local

Plastic Resin Sample Colour Sample

Figure 3.8: Raw Material Samples

Figure 3.9: Raw Material Storage Area

3.4.5 Project Activities by Phases

There are three phases: development phase, operation phase and abandonment phase. The developing phase, which has been completed and is not considered in this EMP. The project is currently in the operation stage, specifically at the operational level.

In the operational phase, the project involves purchasing raw materials and manufacturing finished products, with a focus on selling the finished products. Raw materials will be sourced both domestically and internationally, and will be transported to the factory through personal arrangements. The production of finished products will involve the use of equipment according to the production process, utilization of the labor force, and consumption of water, electricity, and fuel. Waste disposal will also be managed accordingly.

Abandonment process will be included after completion of permitted project period or termination of project by either operator; SACL or officials to ensure operator complying with enacted Myanmar laws and regulations.

3.4.6 Using Machineries and Equipment

The required machineries and equipment are imported from China and already installed in the factory area. List of machineries and machine layout plans are as below.

Table 3.8: List of Machineries and Equipment

No.	Machine Name	A/U	Qty	Model No.	Serial No.	Unit (KW)	Total (KW)	Brand Name	Country of Origin
1.	Plastic Injection Machine	Unit	3	MA-4700	(201507047035225) (201507047035226) (201507047035227)	93.95	281.85	(Haitian)	China
2.	Chiller 1	Unit	1	-	-	40.45	40.45	-	China
3.	Chiller 2	Unit	1	-	-	17	17	-	China

Note: - Mini Chiller (2) is installed. One has a (100 L) mini tank and the other has a separate (1000 L) tank.

3.4.7 Number of Employee and Work Shift

To operate operation activities and by using Local human resources; local personnel manpower (12 nos.), of SACL in long term. Operation days of the factory are about 312 days per year (26 days per month). There is only one work shift for normal manufacturing operations, and the security personnel are divided into day/night shifts.

Permanent Man Power of the Project will be mainly for normal operation of the SACL and the working hours are 8 hours a day from 8:00am to 17:00pm. The minimum basic salary of the project is 144,000 Kyats and SACL will pay the tax for the employee; who earns 4,800,000 Kyat per annum and above, as defined by local authority of Taxation Department.

Organization Chart of Plastic Injection Moulding Machine

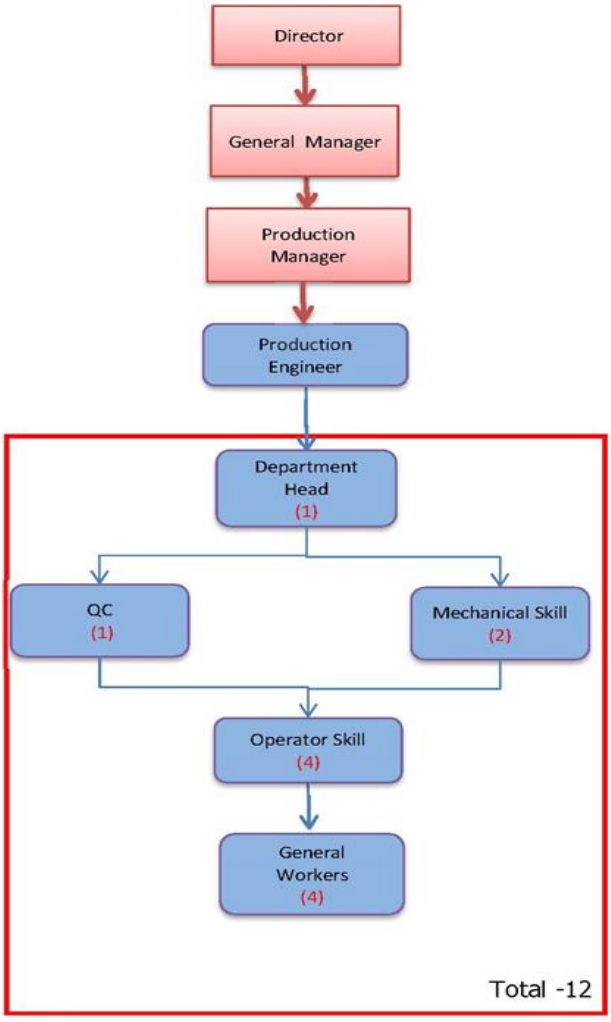


Figure 3.10: Organization Chart of SACL

3.4.8 Products and Production Rate

The proposed project involves the establishment of a Plastic Injection and Molding Factory, which will produce approximately 26.338 Ton of plastic box, basket and Can with lid annually. This includes 4.38 Ton Cake Basket, 3.85 Ton 3liter Can & Lid (Set), 13.60 Ton Soap Box (Set) and 4.050 Ton 2.3 kg Bucket & Lid (Set). The finished products are store in the final products storage room. These products will be sold for domestic used only.

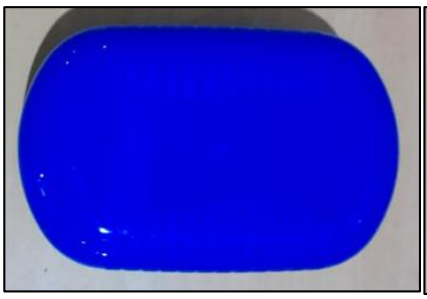
Table 3.9: Production Rate

No.	Item	Unit	Quantity		
			Per day	Per month	Per year
1.	Cake Basket	Ton	0.01534	0.39884	4.838
2.	3 liter Can & Lid (Set)	Ton	0.01232	0.32032	3.85
3.	Soap Box (Set)	Ton	0.04386	1.14036	13.60
4.	2.3 kg bucket & Lid (Set)	Ton	0.01305	0.339	4.050

Cake Basket

3 Liter Can & Lid

2.3 kg bucket & Lid



Soap Box

Figure 3.11: Product Samples

Figure 3.12: Final Product Storage Area

3.4.9 Manufacturing Process Flow

The manufacturing process of Plastic injection and molding is composed with 4 main stages before packaging and distribution. There are mixing, heating & melting, molding, and packing respectively.

Mixing: Mixing plastic raw material.

Heating and Melting: The molten plastic is injected into the mold cavity under high pressure. The plastic cools and solidifies in the shape of the mold.

Molding: The finished plastic items is ejected from the mold.

Finishing: Trimming: Remove any excess material or flash from the lids.

And then package the finished product for shipment. Distribute the product to customers or retailer

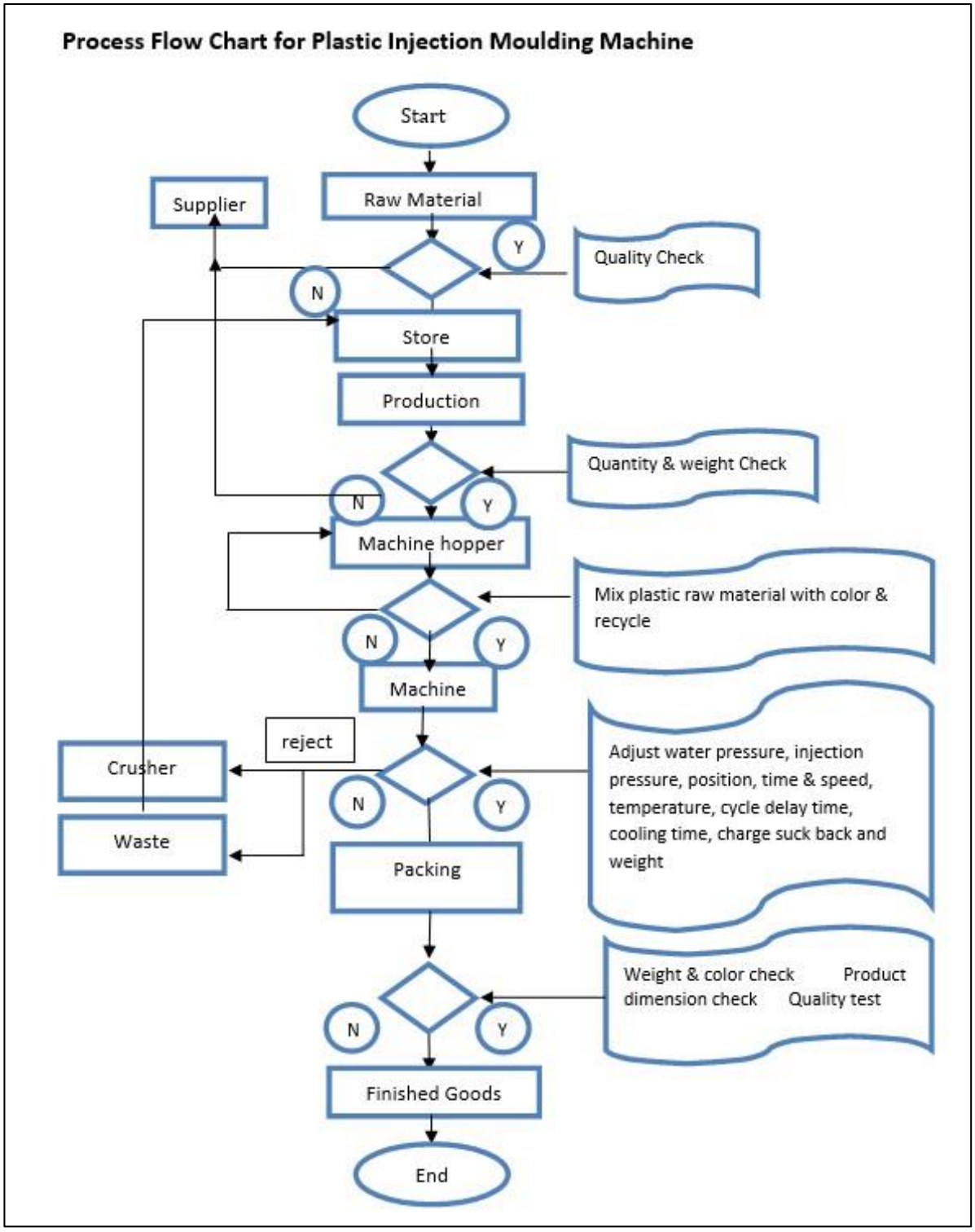


Figure 3.13: Flow Chart for Plastic Injection Molding Machine

3.4.10 Annual Water Requirement and Water Resource

Annual water consumption from project operation is domestic use only and water resources is ground water via tube-well within project preferred area made with local

authority permission. Ground water will be pumped out to upper storage tank for daily domestic usage whilst reserving for emergency usage for firefighting. Annual water consumption is estimated as follow and actual consumption will be updated in future routing (six monthly) Environmental Report to ECD.

Table 3.10: Annual Water Requirement

Sr. No.	Water Usage Description	Annual Consumption
1.	Domestic Usage for staff & visitor	50,000 gallons
2.	Firewater Usage Reserved for Firefighting (Training & Emergency)	10,000 gallons
Total Water Required for Usage		**60,000 gallons**

Figure 3.14: Water Storage Tank

3.4.11 Annual Electricity/Fuel Consumption

Annual power consumption from project operation is mainly from power supply source from National Power Line via installed private transformers under permission of Shwe Pyi Thar Region Power Supply Authority and consumed electricity will be counted monthly as unit for billing purpose.

Table 3.11: Annual Average Power Consumption

No.	Power Consumption Source Description	Annual Consumption
1.	Transformer 315 KVA (1 no.) for Normal operation	73000 KW

Figure 3.15: Transformer

Annual fuel consumption from project operation and maintenance activity estimated majority which may come out from transportation activity by using vehicles as most consumption while other activities (i.e., fuel consumption for backup generator operation) may be considered low consumption as follows and actual consumption will be updated in future routing (six monthly) Environmental Report to ECD.

The fuel required for the generator is purchased from nearest fuel shop with the fuel supplier's transporting plan. The fuel is stored with 55 gallons two metal drums. The fuel storage tank is placed next to the generator placed, along with proper condition.

Table 3.12: Estimated Annual Chemical/Fuel Consumption (Unit – Gallon)

Sr. No.	Chemical/Fuel Description	Annual Consumption
1.	Premium Diesel	100000 gallons
2.	Gasoline (92/95 octane)	5000 gallons
3.	Engine Oil/Gear Oil/Grease/Lubricant	300 gallons

Figure 3.16: Fuel Storage near Generator

3.4.12 Generated Wastes from Project activities

The project: Plastic Injection and Molding Factory can generate plastic scrap waste from production process. And other small amount of general solid wastes, such food waste, cardboard, plastic wrap, etc., generated from operation activity will be separated into reusable and non-reusable materials and sell the recyclable materials to customers. Waste materials that cannot be reused are disposed at a landfill designated by the Yangon City Municipal Development Committee (YCDC) waste disposal site. The estimated amount of solid waste is described in below table.

Table 3.13: Estimated Amount of Generated Solid Waste (Daily/Monthly/Yearly)

Type of Waste	Amount		
	Daily	Monthly	Yearly
Plastc scrap (runners, sprues, flash, etc.)	2.5 kg	75 kg	1000 kg
Food waste	1.5 kg	41 kg	500 kg
Other (cardboard, plastic wrap, etc.)	1.4 kg	40 kg	500 kg

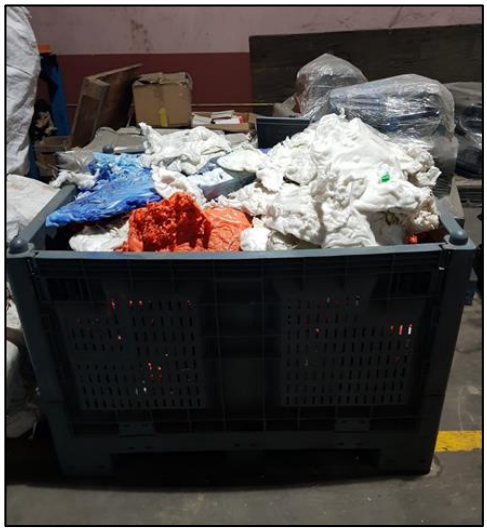



Figure 3.17: Plastic Scrap Waste Storage Area

Water are not needed to use in production process, therefore wastewater cannot be generated from production activities. Wastewater generated by the proposed project includes domestic and sanitary wastewater, those are monitored onsite before discharge into designated location within project area. Domestic wastewater has been filtered and sedimentation with sedimentation tank, and then discharging into

municipal drainage. Septic tank system is onsite for sewage treatment within project area. SACL has to ensure the wastewater releases after treatment comply with NEQEG and YCDC practice standards.

Table 3.14: Estimated Wastewater Discharged Amount

Sr. No.	Wastewater	Average Qty - liters	
		Daily	Monthly
1	Utility uses	50 gallons	1500 gallons
2	Sewage	20 gallons	600 gallons

The sedimentation tank is divided into 3 compartments. First, the waste water flows into the first compartment and settles, and pass through it, the waste water continues to flow to the next compartment. The waste water will continue to settle within the compartment and the excess surface water will be discharged through the outlet. The sedimentation tank is 12 .5 feet long 4.5 feet wide and 5.5 feet high, and that can be store about 2,000 gallons of wastewater. The details of waste water treatment and the process steps are shown in the figure below.

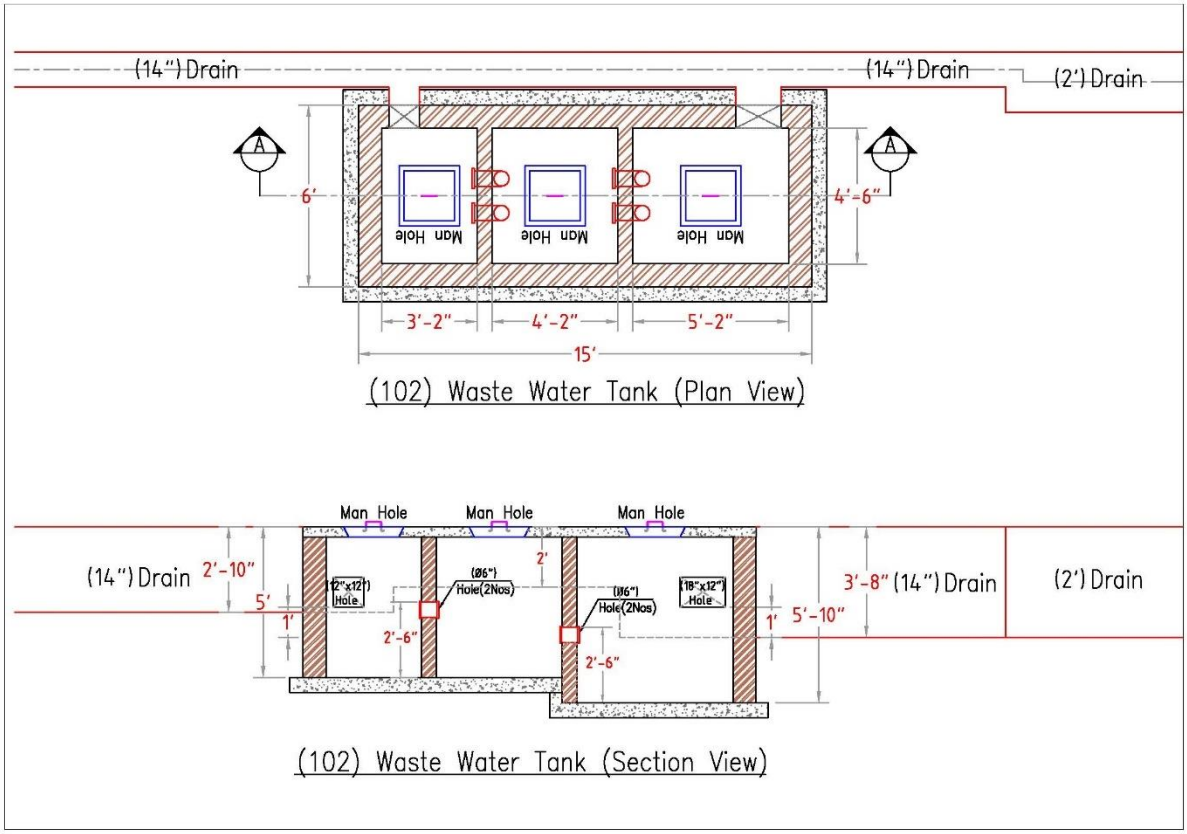


Figure 3.18: Sedimentation Tank Layout

Figure 3.19: Wastewater Drainage Outside Factory

No Hazardous wastes will be generated from the normal operation of SACL. But automotive waste and electronic waste are can be generated from maintenance of factory and transporting service. These wastes are collected with compatible container and store in the hazardous waste area before collecting by YCDC.

Table 3.15: Automotive waste/Electronic waste

Sr. No.	Automotive waste/Electronic waste	Average Qty	
		Monthly	Annual
1	Automotive waste (Motor oil, Engine Oil, Antifreeze, etc.)	15 liters	180 liters
2	Electronic waste (Lamp, batteries, etc.)	10 kg	120kg

4.0 DESCRIPTION OF THE SURROUNDING ENVIRONMENT

4.1 Defined Study Area

The Sweet Angel Plastic Injection Molding Factory is located at No.104, 7th Industry Street, 1 Ward, Shwe Pyi Thar Industrial Zone, Shwe Pyi Thar Township, Yangon Region, Myanmar. The factory is neighboring with eastern- Diesel King Company Limited, western- Kanaung Min Thar Gyi Street, North- 7th Industry Street.

Figure 4.1: Surrounding Environment of the Plastic Injection Molding Factory

The study area is defined as a 110-meter radius circle centered around the project area. This encompasses the neighboring and immediate surrounding areas, including streets, lands, residential zones, and other physical, biological, and social environments. The study area allows for the assessment of both direct and indirect impacts resulting from

the project's activities. Environmental Study Team was conducted a field survey within the study area to identify these impacts.

Figure 4.2: Study Area

4.2 Methodology and Objective of Data Collection and Assessment

Physical, biological, socio-eco, cultural baseline data within the study area was collected. This study aims to identify sensitive receptors in the assessment of impacts on physical resources, biological resources, human use values, and quality of life values. In collection of environmental and social information; primary data collection and secondary data collection were used.

(i) Primary Data Collection

Primary data such as water quality, air quality, noise level and, flora/fauna assessment has been conducted by field survey study in the project area. The results of existing environmental baseline qualities were compared with related guideline in this section.

Grab sampling method was used in collecting of soil and water samples and then sent to the government certified laboratories to know the baseline quality results of the collected samples. **Calibrated EPAS Haz scanner and air quality multimeter** were used for monitoring of ambient air quality results (such as CO, NO_2, SO_2, RH%, PM_{10}, $PM_{2.5}$, VOC) in the project area. **Digital noise level meter** was used for baseline data collection of noise emission from project activities. Flora/fauna information are collected by **walk through survey** and some are getting from **interview with local people.**

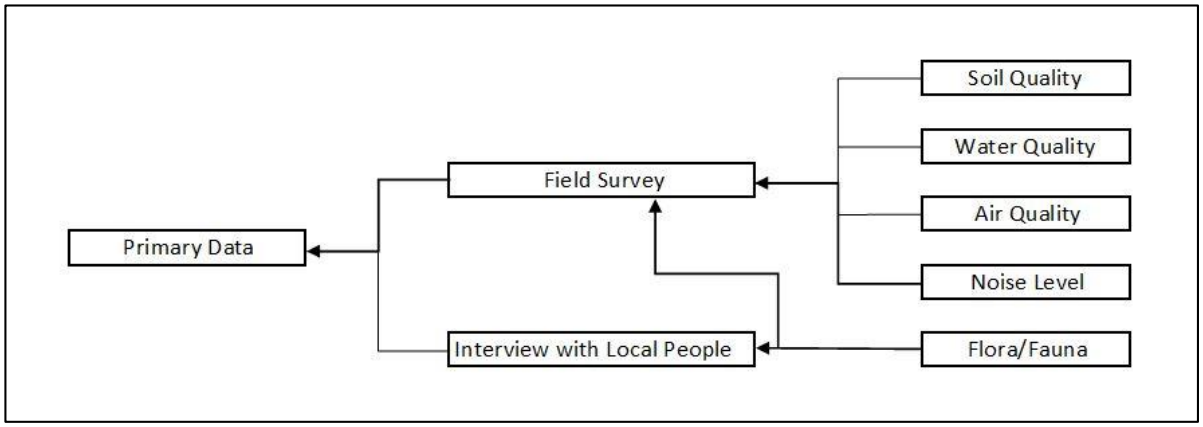


Figure 4.3: Methodology for primary data collection

(ii) Secondary data Collection

In this desktop study aim to gather existing data on the physical characteristics and socio-economic aspects of the study area that located in Shwe Pyi Thar Township. Our sources include secondary resources such as government profiles and relevant websites.

The information of topography, geology and soil, meteorology and climate, land use, natural disasters, and hydrology obtained from some research papers and Shwe Pyi Thar Township profile for 2023, the General Administrative Department. Additionally, socio-economic data related to population, education, health, religion/cultural heritage, and infrastructure services also gathered from the Shwe Pyi Thar Township profile for 2023 and other relevant government websites. These details are crucial for understanding the community.

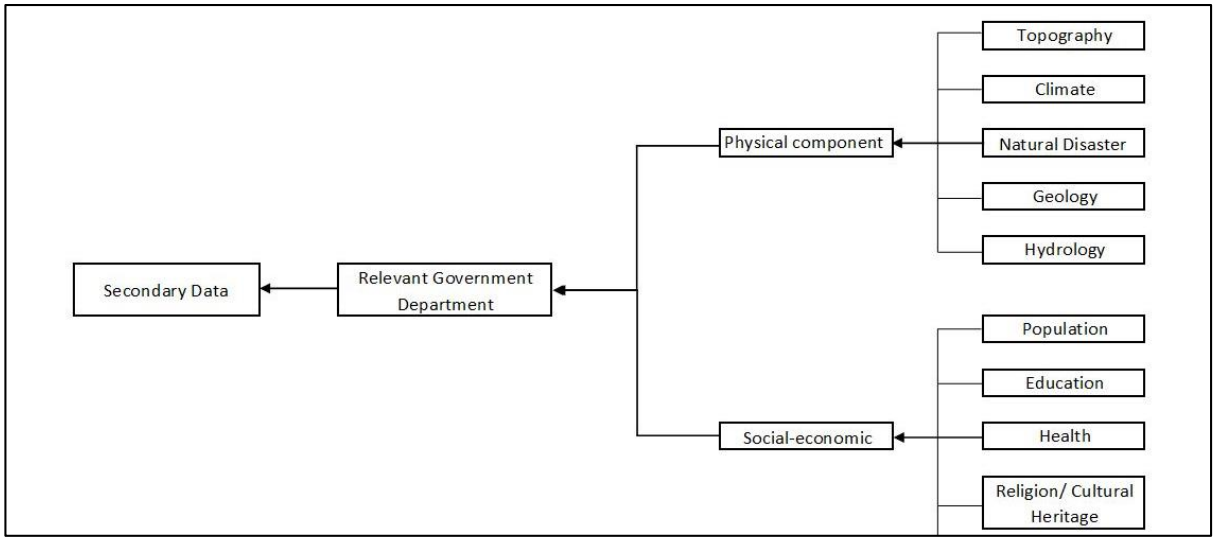


Figure 4.4: Methodology for secondary data collection

4.3 Existing Environmental Baseline Condition

Field survey has been done on July to monitor values of existing environmental quality; Water quality, Air Quality, Noise Level, etc., Main purpose of Existing environmental quality values monitoring is recording existing environmental quality values to include in impact assessment to surrounding environment from project activity. It's observed that the values (Air, Water, and Noise) are within general guidelines.

4.3.1 Water Quality

The principal objective of water quality monitoring program was to obtain quantitative baseline data for the area affected by the project activity, and impacts to environment. Generally, initial water quality monitoring will be all available water resources in the EMP stage and then after monitoring will be more on wastewater. The water quality data therefore provides the basic for quantitatively determining the followings:

- Water quality in the "existing" natural environment (upstream of the project area); and
- The effect caused by the construction of the project station on water quality (downstream of the project location).

Table 4.1: Water Analysis methods

Parameter	Analysis Method
Ammonia Nitrogen	Distillation Method
Arsenic	Colorimetric Method
BOD	5210 B 5 Days BOD Test (at 20 Degree Celsius)
Chloride	Argentometric Method
COD	Close Reflux, Titrimetric Method
Colour (True)	APHA Platin u m Cobalt Unit
Conductivity	Instrumental Analysis
Copper	Colorimetric Method
Dissolved Oxygen	Azide Modification of Iodometric Metric Method
Fluoride	SPADNS Method
Iron	Phenanthroline Method
pH	Instrumental Analysis
Sulphate	4500-504 E. Turbidimetric Method
Total Dissolved Solids	Instrumental Analysis
Total Hardness	EDTA Titrimetric Method
Total Solids	Calculation
Total Suspended Solids	Photometric Method
Turbidity	Instrumental Analysis
Zinc	Colorimetric Method

Brief descriptions of water surveys are shown in below Tables.

Table 4.2: Water sample brief description

Sample No.	Water sample 1
Type of water	Wastewater
Date	5.9.2024
Collected Time	10:30pm
Examination Period	6.9.2024 to 11.9.2024
Location	from drainage
Latitude, Longitude	16°57'6.70"N, 96° 5'38.30"E

Figure 4.5: Wastewater sample location map

Using materials to collect water samples are shown in following table.

Table 4.3: Using material for water survey

No.	Type	Description	Remark
1	Water bottle	Water container	
2	Marker pen	To label about collected sample	
3	GPS Tracker	To record location points	

Collected water samples are shown in below figures.

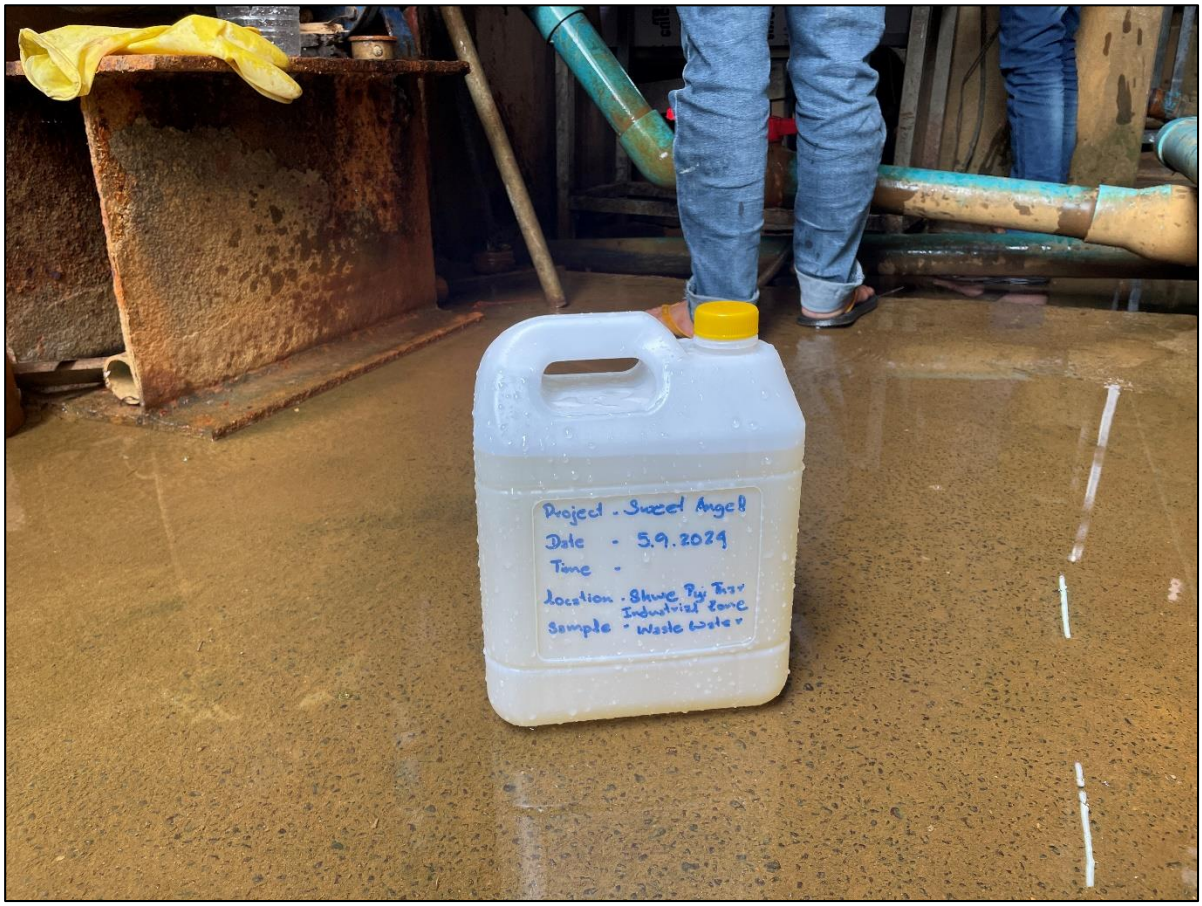


Figure 4.6: Water sample

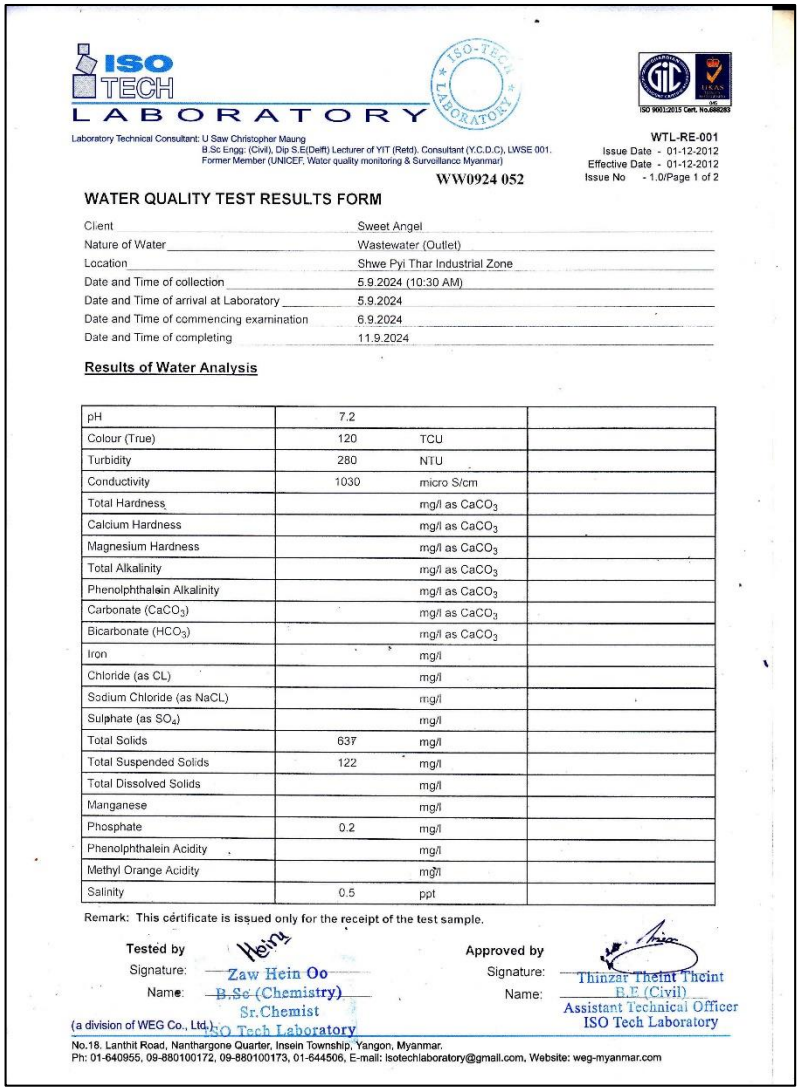
The monitoring program outlined above began recording data in 6 September 2023. Wastewater sample was collected from only one station on 6 September 2023 by using **Grab Sampling Method**.

A garb sample is a discrete sample which is collected at a specific location at a certain point in time. Rinse the sampling vessel with water on site 3-4 times. Care must be taken to avoid contaminating water to be sampled during rinsing. Submerge the sampling vessel gently, fill it with the water sample and close it tightly. Location of each sampling station was recorded by GPS and photographed. Collected sample was labelled and sent to the laboratory.

The waste water sample was sent to ISO Tech Laboratory for analysis. According to the results, the parameters pH, and COD are meet with National Environmental Qualities (Emission) Guideline 2015; Metal, Plastic and Rubber Products Manufacturing Standard

Table 4.4: Discharged water results compared with NEQEG 2015, 2.3.7.5

Parameter	NEQEG	Water Sample 1	Unit
	2.3.7.5	Wastewater	
BOD	-	32	mg/l
COD	250	96	mg/l
Color	-	120	TCU
Conductivity	-	1030	mg/l
DO	-	6.8	mg/l
Nitrate	-	0.6	mg/l
pH	6-9	7.2	S. U
Phosphate	-	0.2	mg/l
Salinity	-	0.5	mg/l
Temperature	-	25	°C
Total solids	-	637	mg/l
Total Suspended Solid	-	122	
Turbidity	-	280	mg/l



ISO TECH LABORATORY

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

WW0924 052

WATER QUALITY TEST RESULTS FORM

Client	Sweet Angel
Nature of Water	Wastewater (Outlet)
Location	Shwe Pyi Thar Industrial Zone
Date and Time of collection	5.9.2024 (10:30 AM)
Date and Time of arrival at Laboratory	5.9.2024
Date and Time of commencing examination	6.9.2024
Date and Time of completing	11.9.2024

Results of Water Analysis

pH	7.2		
Colour (True)	120	TCU	
Turbidity	280	NTU	
Conductivity	1030	micro S/cm	
Total Hardness		mg/l as $CaCO_3$	
Calcium Hardness		mg/l as $CaCO_3$	
Magnesium Hardness		mg/l as $CaCO_3$	
Total Alkalinity		mg/l as $CaCO_3$	
Phenolphthalein Alkalinity		mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)		mg/l as $CaCO_3$	
Bicarbonate (HCO_3)		mg/l as $CaCO_3$	
Iron		mg/l	
Chloride (as CL)		mg/l	
Sodium Chloride (as NaCL)		mg/l	
Sulphate (as SO_4)		mg/l	
Total Solids	637	mg/l	
Total Suspended Solids	122	mg/l	
Total Dissolved Solids		mg/l	
Manganese		mg/l	
Phosphate	0.2	mg/l	
Phenolphthalein Acidity		mg/l	
Methyl Orange Acidity		mg/l	
Salinity	0.5	ppt	

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

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

Approved by
Signature:
Name: Thinzar Theint Theint
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Assistant Technical Officer
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No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
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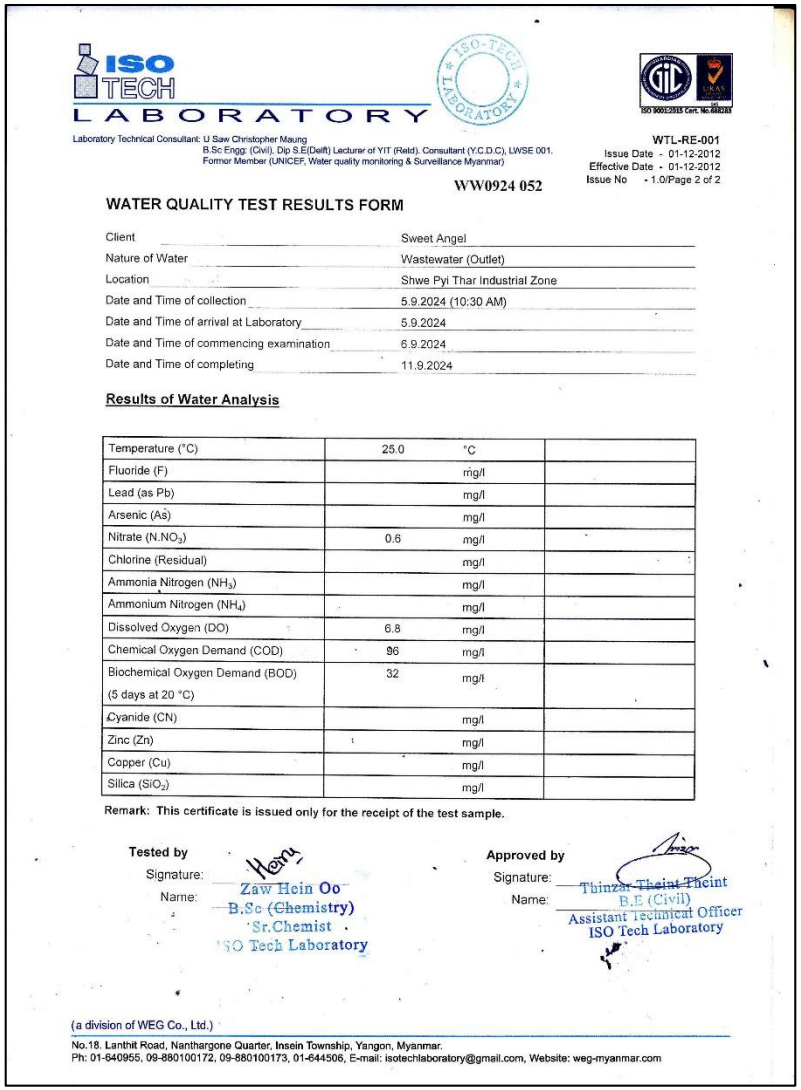

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WW0924 052

WATER QUALITY TEST RESULTS FORM

Client	Sweet Angel
Nature of Water	Wastewater (Outlet)
Location	Shwe Pyi Thar Industrial Zone
Date and Time of collection	5.9.2024 (10:30 AM)
Date and Time of arrival at Laboratory	5.9.2024
Date and Time of commencing examination	6.9.2024
Date and Time of completing	11.9.2024

Results of Water Analysis

Temperature (°C)	25.0	°C	
Fluoride (F)		mg/l	
Lead (as Pb)		mg/l	
Arsenic (As)		mg/l	
Nitrate ($N.NO_3$)	0.6	mg/l	
Chlorine (Residual)		mg/l	
Ammonia Nitrogen (NH_3)		mg/l	
Ammonium Nitrogen (NH_4)		mg/l	
Dissolved Oxygen (DO)	6.8	mg/l	
Chemical Oxygen Demand (COD)	96	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	32	mg/l	
Cyanide (CN)		mg/l	
Zinc (Zn)		mg/l	
Copper (Cu)		mg/l	
Silica (SiO_2)		mg/l	

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

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

Approved by
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Figure 4.7: Wastewater Sample analysis results

4.3.2 Air Quality

The Objectives of air quality monitoring are; to monitor the existing baseline air quality status of the proposed project area and to determine the potential air impact likely affected by proposed project. The findings present the baseline air quality measurements which were recorded per minute simultaneously in terms of 24-hours average.

Figure 4.8: Air Quality Monitoring Location

Brief description of air quality monitoring program is shown in below.

Table 4.5: Air Quality Monitoring Program

Subject	Air Quality Monitoring Program
Parameter	O_3, CO, SO_2, NO_2, Relative Humidity $PM_{2.5}$, PM_{10}, VOC, Temperature
Date	6 September 2024 to 7 September 2024
Period	24 hours

Location Point	Latitude: 16°57'6.25"N, Longitude: 96° 5'36.78"E

Using materials for ambient air quality monitoring are shown in below table.

Table 4.6: Using materials for ambient air quality monitoring

No.	Type	Parameter & Range	Remark
1	EPAS Haz-scanner -Direct reading -Simultaneously monitor PM and toxic gases	**Carbon monoxide** Range: 0 to 10,000 ppb **Nitrogen Dioxide** Range: 0 to 5,000 ppb **Sulfur Dioxide** Range: 0 to 5,000 ppb **PM_{10}** Range: 0 to 5,000 ug/m³	
2	Ozone meter -Electrochemical sensor	**Detection data range:** (0.000-5.000ppm)	
3	Air quality multimeter	**Dust / $PM_{2.5}$:** Range: 0-500 ug/m³ Accuracy: ±10% Sampling cycle: 1 second **VOC:** Range: 0-10 ppm Accuracy: ±10% Sampling cycle: 1 second **Temperature:** Range: -10-80 ℃ Accuracy: ±0.3 ℃ Sampling cycle: 2 second **Humidity:** Range: 0-100 RH% Accuracy: ±3 RH%	

		Sampling cycle: 2 second	
4	GPS Tracker	To record location points	

Figure 4.9: Ambient Air Quality Monitoring at the Project Area

National Environmental Quality (Emission) Guideline designed as limits for protection of public health, welfare and environment were used to compare with the results of the baseline survey and to determine the existing baseline status of air quality at the locations within the proposed project area. Compared Ambient air quality results with National Environmental Quality (Emission) Guideline are as follow;

Table 4.7: Air Quality Monitoring Result (General Guidelines)

Parameter	NEQEG 1.1 General Air Emission Levels		Ambient Air Quality Results	
	Averaging Period	Value	Averaging Period	Value
Ozone	8-hours	100 µg/m^3	24 hours	0.001 µg/m^3
Carbon monoxide	-	-	24 hours	82 µg/m^3
Nitrogen dioxide	1 hour	200 µg/m^3	24 hours	16.74 µg/m^3
Sulphur dioxide	24 hours	20 µg/m^3	24 hours	8 µg/m^3
VOC	-	100 mg/Nm^3	24 hours	0.01 mg/Nm^3
PM_{10}	24 hours	50 µg/m^3	24 hours	45.86 µg/m^3
$PM_{2.5}$	24 hours	25 µg/m^3	24 hours	24.44 µg/m^3
Relative Humidity	-	-	24 hours	62 %

According to the above table, all results of the baseline survey indicate that the 24-hours average levels of O_3, NO_2, SO_2, VOC, and PM_{10}, $PM_{2.5}$ meet National Environmental Quality (Emission) Guidelines: 1.1 General Air Emission Levels Guidelines Value.

4.3.3 Noise Level

Ambient noise levels are associated with Project Activity and natural elements i.e., wind, rains, and thunderstorms. Measurement of environmental noise level was conducted by Digital Noise Level Meter in 9 September 2024.

The noise level measured in the perimeter of the project area can provide the indication of the existing noise level of the area. There are no significant sources of vibration in the project area.

Table 4.8: Ambient Noise Level Measuring

Date	Period	Subject	Latitude	Longitude	Location
9 September 2024	24 hours	Noise Level Measurement	16°57'6.42"N	96° 5'37.56"E	Near factory fence

Noise level measurement location point is shown in following Figure.

Figure 4.10: Noise level measurement location map

Using materials to measure noise level are shown in below table.

Table 4.9: Using materials for noise level measurement

No.	Type	Description	Remark
1	Digital Noise Meter	To measure ambient noise level	
2	GPS Tracker	To record location points	

Noise level in the project area is lower than NEQEG 1. General Guidelines, 1.3 Noise Value. Below Table shows ambient noise level at the project area compare with National Environmental Quality (Emission) Guidelines; 1. General Guidelines, 1.3 Noise.

Table 4.10: Ambient Noise Level Result

Date	Time	Average Result of Project Area	EQEG Noise Level		Weight	Day/Night
			Daytime	Nighttime		
6 Sep 2024	09:05:30-10:05:00	58	70	70	A	Day
	10:05:30-11:05:00	60	70	70	A	Day
	11:05:30-12:05:00	59	70	70	A	Day
	12:05:00-13:05:00	59	70	70	A	Day
	13:05:30-14:05:00	59	70	70	A	Day
	14:05:30-15:05:00	60	70	70	A	Day
	15:05:30-16:05:00	60	70	70	A	Day
	16:05:30-17:05:00	64	70	70	A	Day
	17:05:30-18:05:00	61	70	70	A	Day
	18:05:30-19:05:00	64	70	70	A	Day
	19:05:30-20:05:00	64	70	70	A	Day
	20:05:30-21:05:00	61	70	70	A	Day
	21:05:30-22:05:00	60	70	70	A	Day
	22:05:30-23:05:00	59	70	70	A	Night
	23:05:30-00:05:00	59	70	70	A	Night
7 Sep 2024	00:05:00-01:05:00	59	70	70	A	Night
	01:05:30-02:05:00	59	70	70	A	Night
	02:05:30-03:05:00	59	70	70	A	Night
	03:05:30-04:05:00	59	70	70	A	Night
	04:05:30-05:05:00	59	70	70	A	Night
	05:05:30-06:05:00	60	70	70	A	Night
	06:05:30-07:05:00	58	70	70	A	Night
	07:05:30-08:05:00	58	70	70	A	Day
	08:05:30-09:05:00	59	70	70	A	Day

Note: noise level results are in EQEG noise emission standard

4.4 Physical Characteristic

Physical characteristic of environment includes

- Topography
- Geology and soil
- Meteorology and climate
- Land use
- Natural Disaster
- Hydrology
- Erosion and sedimentation

4.4.1 Topography

Shwe Pyi Thar township is located between north latitude 16°56' to 17°6' and east longitude 96°4' to 96°12'. The township area is 25.76 square miles and length is 3.142 miles from east to west and 8.2 miles from south to north. Elevation of the township is average above 100-feet.

The township is bordered with Eastern– Mingalardon township and Hlawga Lake, Western – Hlaing River and Htantapin township, Southern – Insein township, and Northern – Hmawbi township. Hlawga watershed reserved forest; small highland mountains are situated in eastern part of township area. It gradually descends to the west and becomes flat plains.

(Refer: Shwe Pyi Thar Township profile 2023, General Administrative Department Information)

4.4.2 Geology and Soil

The study area is mainly covered by the Quaternary alluvium sediment. In Yangon area, the Quaternary Bed attains a considerable thickness (stratigraphically inferred 16 - 100 m) and from a hydrogeological point of view, a water bearing horizon lies between 40 – 80 m (Zaw Myo Oo – 2012).

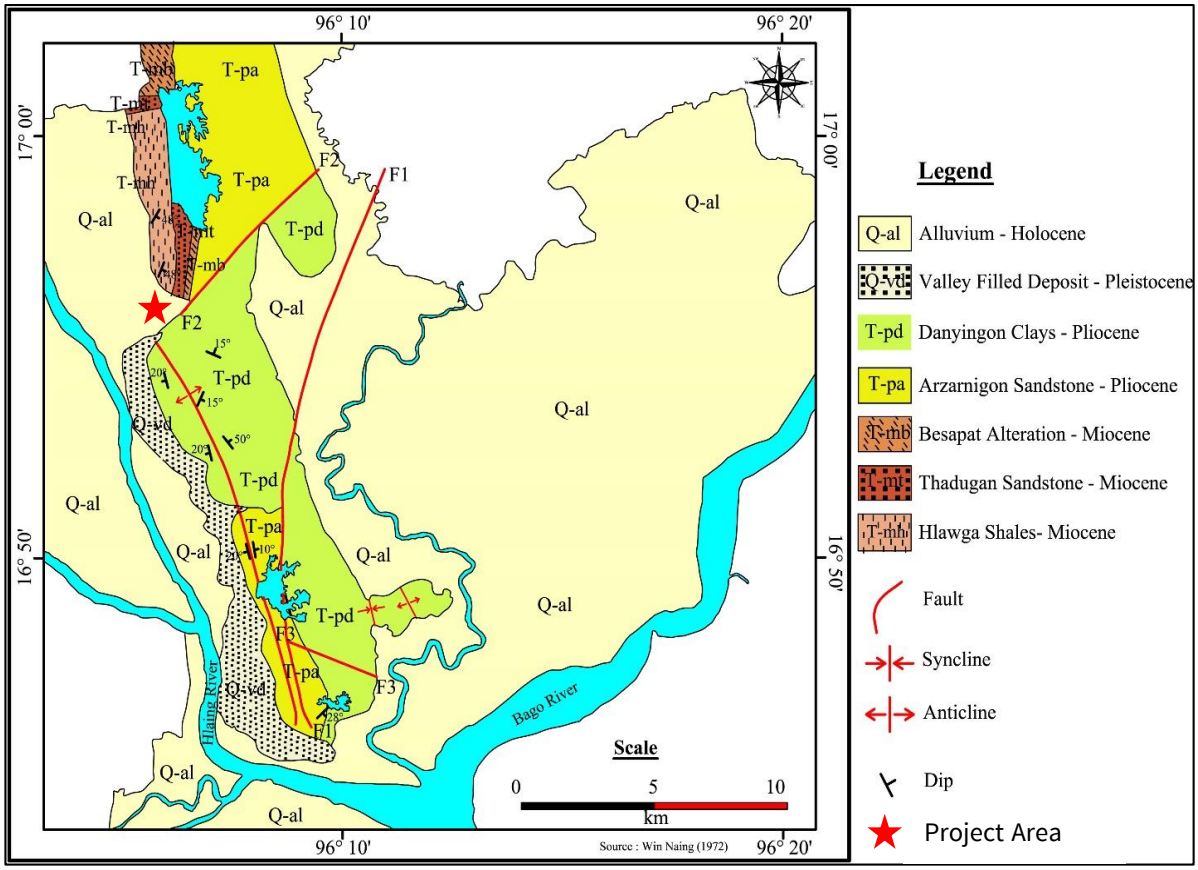

Figure 4.11: Geological Map of Greater Yangon Area

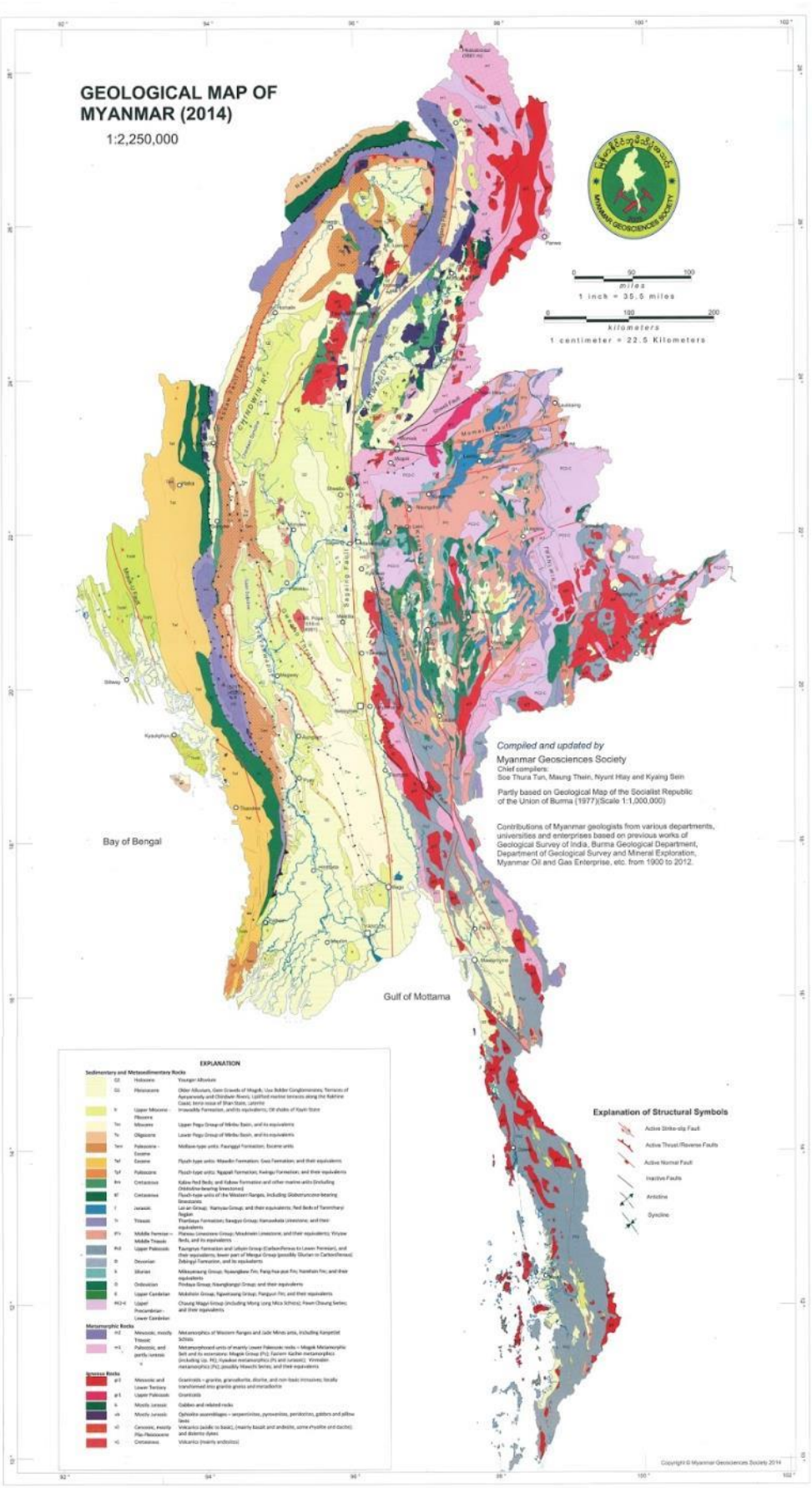

Figure 4.12: Geological Map of Myanmar

4.4.3 Meteorology and Climate

The tropical climate of Myanmar is characterized by a wet monsoon season from May to October and a dry season from November to April. Shwe Pyi Thar Township has hot and humid climate. Highest temperature is 39°C and lowest temperature is 15.5°C. Annual rainfalls and temperatures are shown in the following table.

Table 4.11: Rainfall and Temperature of Shwe Pyi Thar Township

No.	Year	Rainfall		Temperature	
		Rainy Day	Total Rainfall (inches)	Summer	Winter
				Highest (°C)	Lowest(°C)
1	2013	107	87.78	34	30
2	2014	103	70.88	34	30
3	2015	106	84.91	34	30
4	2016	107	87.78	34	30
5	2017	116	85.89	34	30
6	2018	103	102.4	38	30
7	2019	97	92.8	38	30
8	2020	100	79.79	38	30
9	2021	88	81.56	38	30
10	2022	134	96.65	36	23
11	2023	-	-	39	27

(Refer: Shwe Pyi Thar Township profile 2023, General Administrative Department Information)

4.4.4 Land Use

The existing land use pattern of Shwe Pyi Thar Township according to General Administration Department data info (2023) is presented in below Table.

Table 4.12: Land Use

Sr. No.	Land use	Area in Acre
1	Agricultural land	1857
2	Vacant land	53
3	Pasture land	60
4	Industrial land	2617.83
5	Urban	8184.881
6	Rural	3569.892
7	Reserved Forest/Park	-
8	Wild Forest	-
9	Wild Land	-
10	Not agricultural area	2.40
11	Other	194.397
Total		**16486.41**

(Refer: Shwe Pyi Thar Township profile 2023, General Administrative Department Information)

4.4.5 Natural Disaster

The Yangon Region has experienced Giri and Nargis Cyclones and also records of earthquake in history. Therefore, the potential natural hazards such as cyclone and earthquake should not be neglected around the study area.

Table 4.13: Natural disaster occurred in Shwe Pyi Thar Township 2023

No.	Type	Frequency	Death/Missing (person)	Building Losses/Damage	Total Losses (million kyats)
1	Storm	-	-	-	-
2	Tsunami	-	-	-	-
3	Earthquake	-	-	-	-
4	Flood	-	-	-	-
5	Fire	18	-	House 13/ vehicle 2	430.30
6	Thunder	-	-	-	-

(Refer: Shwe Pyi Thar Township profile 2023, General Administrative Department Information)

4.4.6 Hydrology

Shwe Pyi Thar Township has lots of creek and river, and the most significant of which is the Hlaing River (WahTaYar River). That river is a fresh water river that can be used for agriculture and drinking. Boats and sampan can also travel in the river.

(Refer: Shwe Pyi Thar Township profile 2023, General Administrative Department Information)

4.5 Biological Characteristic

There is no Biodiversity Conservation Area, Protected Area and Historical Places in Shwe Pyi Thar Township. Nearest reserved forest is the Hlawga Reserved Forest which located in Mingalardon Township. The reserved forest is about 4 miles away from the project.

Figure 4.13: Distance Between the project and Hlawga Reserved Forest

Flora

Flora account is based on actual sighting. Big trees generally found in and around the project area include Malaysia padauk (Acacia auriculiformis), Thiho (Anacardiumoccidentale), Pwe-se-mezali (Cassia alata), Ngu (Cassia fistula), Ohn-pin

(Cocosnucifera), Sein-pan (Delonixregia), Kathit (Erythrina sp.), Eucalit (Eucalyptus albens), Pyinma (Lagerstroemia speciosa), Tha-yet (Mangiferaindica), Padauk (Pterocarpus macrocarpus), Khaye (Mimusopselengi), Ye ta ma (Polyathialongifolia), Kokko (Samaneasaman), and Banda (Terminaliacatappa).

Fruit tree species commonly met within the residential area include Guava (Psidiumguajava), Jackfruit (Artocarpusintegrifolia), Tamarind (Tamarindusindica) and Banana (Musa sapientum), Palm species like coconut (Cocosnucifera), Toddy (Borassusflabellifer) are common. Many common herbs like Khwe-thay-pan (Ageratum conyzoides), Pein (Colocasiaesculenta) and Hti-ka-yone (Mimosa pudica) are found in these areas. Climbers Kazun-ywet (Ipomoea aquatic) is common in the project area.

Fauna

Fauna account of fauna is based more on oral tradition or local knowledge than actual sightings. The list of birds sighted in the study area is *Corvus splendens* (House crow), *Corvus macrorhynchos* (Large-billed crow) and *Passer montanus* (Eurasian tree sparrow).

Table 4.14: List of fish found in the project area

No.	Myanmar Name	Scientific Name	Common Name
1	Nga Tan	Pangasius hypophthalmus	Giant cat fish
2	Nga Zin Yaing	Mystusblythii	River cat fish
3	Puzun	Penaeus merguiensis	Banana Shrimp
4	Nga but	Wallago attu	Freshwater shark
5	Kakettit	Lates calcarifer	Giant sea bass
6	Ngaponna	Polynemus paradiseus	Mango fish
7	Ngapopthin	Johnius belangerii	Belangeri croaker
8	Ngakaungpwa	Pannahia macrophthlamus	Big head pennah
9	Nga Myint Chin	Labeo rohita	Rohu
10	Nga Phwel	Notopterus	Featherback
11	Nga Yant	Channa Striatus	Snack Head
12	Nga Ku	Charias batrachus	Common Cat Fish
13	Nga Kyi	Heteropneustes fossils	Scopion Cat Fish

14	Nga Nu Than	Ompok pabo	Sheat fish
15	Tilabiya	Oreochromis spp:	Mouth breeder
16	Nga Kone Ma	Puntius gonionotus	Barb

4.6 Socio-Eco Characteristic

Shwe Pyi Thar township was composed with 23 quarters, 4 village tracts and 5 villages. The township is an economically developed township and most of people living in the township are mainly work in industrial and craft works.

4.6.1 Economic Development and Infrastructure

There is four industrial zone in the township. Other small industries are scattering in the township. Below table show factories which located in Shwe Pyi Thar Township.

Table 4.15: Factories in Shwe Pyi Thar Township

No.	Type	No. of Factories			
		Zone 1	Zone 2	Thardukan	WahTaYar
1	Garment	34	5	20	14
2	Food	47	15	8	8
3	Consumer Goods	61	6	9	13
4	Building materials	13	2	6	7
5	Electrical appliances	3	-	1	-
6	Forestry products	13	1	1	4
7	Chemical	2	-	-	-
8	Paper and Stationary	5	1	1	-
9	Machinery Equipment	9	1	1	-
10	Aquatic Product/cold room	3	2	1	-

(Refer: Shwe Pyi Thar Township profile 2023, General Administrative Department Information)

4.6.2 Occupation and Income

Average per capital income is estimated about 3,074,520 kyats in 2022-2023 according to 2023 Shwe Pyi Thar Township report, General Administration Department. The unemployment rate in the township is 8.35% (aged group- over 18years) and below Table shows number of employed people by occupation.

Table 4.16: Number of employed people by occupation

No.	Occupation	No. of employed people
1	Government staff	37525
2	Service worker	28870
3	Agricultural worker	993
4	Livestock worker	3010
5	Sales worker	41965
6	Craft & industrial worker	800
7	Fishery worker	54
8	Casual worker	62515
9	Other	314320

(Ref: Shwe Pyi Thar Township report 2023, General Administration Department)

4.6.3 Education

Yangon Computer University is located in the Township. Matriculation pass rate in 2021-2022 was 43.86 % and the literacy rate is 97.96%. The enrolment rate for school-age children was 96%. Basic educational schools in the Township area according to General Administration Department data info (Sept 2023) as in follow:

- Five Basic Education High Schools
- Five Basic Education Sub-High Schools
- Eight Basic Educational Middle Schools
- Thirty-one Basic Educational Post Primary School
- Eleven Basic Education Primary Schools
- One Nursery School
- Twelve Monasteries base schools

4.6.4 Health

There is one hospital called Shwe Pyi Thar General Hospital (35 bedded). Two rural health division and a lot of clinics are operated with good healthcare system within the township. Common health disease usually happened in the township area is brief as below.

Table 4.17: Common health disease usually happened in Shwe Pyi Thar Township

Malaria		Diarrheal		Tuberculosis		Dysentery		Hepatitis	
Cause	Dead	Cause	Dead	Cause	Dead	Cause	Dead	Cause	Dead
-	-	508	-	-	-	9	-	-	-

(Refer: Shwe Pyi Thar Township profile 2023, General Administrative Department Information)

4.6.5 Religion and Cultural Heritage

Above 94.66 percent of the people lived in the township are Buddhists. There is 3 Pagoda, 286 Monastery, 42 Nunnery, 3 Church, 1 Mosque, in Shwe Pyi Thar Township. Distinct pagodas and monastery are show in below Table.

Table 4.18: Distinct pagoda in Shwe Pyi Thar Township

No.	Name of Pagoda/Monastery	Location
1	Myo Oo Pagoda	No.6 Ward
2	Thardukan Pagoda	Oak Pho Village Tract
3	Min Bandu Pagoda	No.23 Ward
4	Yan Kon Monastery	No.6 Ward

(Refer: Shwe Pyi Thar Township profile 2023, General Administrative Department Information)

Hlawga National Park is an open zoo in Myanmar's Yangon Region, covering 6.23 km^2(2.41 sq mi) that was established in 1982. It was created to protect evergreen, mixed deciduouss and swamp forest and for environmental education. Located in Mingaladon Township, it is jointly managed by the Nature and Wildlife Conservation Division and private enterprises. The nature park is close to Yangon and includes an 818-acre (313 hectare) wildlife park, a 62-acre (25-hectare) mini-zoo and a 660-acre (267-hectare) buffer zone.

5.0 SCREENING OF POTENTIAL ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

The objective of screening of potential impact is to identify risks and to measure associated impacts which may arise from project activities based on analysis of collected data information and desktop brainstorming study to find suitable way to eliminate, control or mitigate the risk to environment.

The study area of the project will cover the operation area within rented land area. The areas will be used to identify sensitive receptors in the assessment of impacts on physical resources, biological resources, human use values, and quality of life values. Examples of sensitive receptors are schools, temples, water resources, industrial areas, etc.

In Identifying and evaluate of negative impact of the proposed project, potential negative impacts of the project period phase were identified and their impact on the environment and socio-economic impacts was assessed. During an inspection of the site in environmental field surveying, some of these sources of potential environmental effects are found the following:

Table 5.1: Sources for Potential Environmental Impacts

Facts of Potential Environmental Impacts	Description
Energy Cosumption	power(electrical) consumption for machinery and Lighting
Raw Materials Consumption	plastic materials
Gases Emission	dust, fumes, VOC, CO, CO_2
Noise Emission	running machineries and sometime generator running
Water Consumption	domestic water using by employees
Wastewater Discharging	discharging of domestic wastewater from washing and toilet usage by employees

General Solid Waste	plastic pieces, paper, cardboard, food waste, domestic waste
Hazardous waste	machine oil, engine oil, lubricants and residual fuel

During the development, operation and abandonment phase of a project, there may be significant and non-significant impacts on the environment and socio-economics according to the activities of the project. The environmental and socio-economic impacts of the project during construction, operation and decommissioning are identified as follows:

Potential Impacts		
Impact on humans	**Environmental Impacts**	**Discharging/Emission**
Social	Air	Solid waste
Health	Water	Liquid waste
Economic	Soil	Emission gas
Disaster	Noise/Vibration	Hazardous waste

5.1 Identification and Assessment of Potential Environmental Impacts

Identification and assessment of potential environmental impacts which may outcome from the proposed project are listed as below: -

Table 5.2: Findings

Activity	Findings
Development Phase (1 Year) (Completed)	
Location	Cleared land acquisition Locate outside protected areas and inside industrial zone Land rented under agreement.
Design	It had already designed effectively to construct as layout plan within rented land area (industrial zone)
Construction	SACL followed YCDC instruction in waste management

Activity	Findings
	And the building had already construsted
Installation	SACL followed YCDC instruction in waste management Used Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. Worked at Day time only
Operation (20 Year) (Ongoing process)	
Operation	Following YCDC instruction in waste management Complying to be under NEQEG parameter level in wastewater discharging, air and noise emission Complying the existing Myanmar Laws and rules Using Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. Working at Day time only Fire Safety System, Security System, Social Welfare Program, CSR Program and Occupational Safety Plan in place
Maintenance	Following YCDC instruction in waste management Using Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. Working at Day time only
Abandonment (3 month to 1 Year) (TBA)	
Dismantling & Demolition	Plan to follow YCDC instruction in waste management Plan to use Soundproof Generator and Less Sulphur Content Diesel & operate at Day time. Plan to work at Day time only
Termination of permanent staff	Plan to compensate according to Myanmar Labor Law

SACL keens to implement in Environmental management & monitoring programs in accordance with official approved EMP for the proposed project

5.2 Environmental Impact Assessment of each three phase (Development, Operation and Abandonment) of the project period.

The assessment of situation of potential negative impacts depending on each three phases (Development, Operation and Abandonment) of the project period is as follow.

Table 5.3: Environmental Impact Assessment of Each Phase of the Proposed Project

No.	Project Phase	Performance Objective	Impact (Yes/No)	Note
1	**Development**	Land acquisition and resettlement	No	Within the existing industrial zone
		Construction	No	Completed building
		Facility Installation	No	Installation of necessary machineries has already been installed
2	**Operation**	Raw materials Storage	Yes	Storage of plastic raw materials
		Operation of Plastic Items Production	Yes	Installation by combining of manpower and machineries
		Product Transportation	Yes	Transportation by vehicles
3	**Abandonment**	Uninstallation of Facilities	No	Uninstallation of facilities and machineries from assembly of vehicles operation project
		Dismantling and Retirement / Termination of employees	Yes	Possibility of grievances
		Demolition work	No	Reinstate buildings

5.2.1 Development Phase

There will be included Land clearance, Construction the buildings and Installation of necessary facilities and machines in development phase.

Land clearance: There is no need to clear the land as the proposed project site is located in the existing industrial zone.

Construction the building: Main buildings have already been built so there is no need to build for more.

Installation of facilities and machines: Necessary facilities and equipment for Assembly and Installation have already been finished.

In the case of this project there are no impacts that can be said to result from the development phase due to the above activities.

5.2.2 Operation Phase

During the operation stage, products will be produced and there will be include storage of raw materials, plastic items production processes, products storage and transportation.

Storage of raw materials: In plastic items production operation, the necessary raw materials will be stored in the warehouse. In such storage, it is found that there is a risk of fire incident due to flammable materials.

Production Process: In the process of production of plastic item products, it is found that there is a small risk of air, noise and accidental injury impact.

Products transportation: After the plastic item products are finally produced, products transportation will be carried out by vehicles from the factory. In this case, it is found that there may be a traffic jam and accident impact.

Storage of plastic item products: It is found that there is no impact to the environment because this process is the final products for sale are stored in warehouse.

5.2.3 Abandonment Phase

There will be included Removing/Uninstallation and storing equipment installed in the project, Retirement/Termination of employees and Demolition work of buildings in abandonment phase.

Removing/Uninstallation and storing equipment installed in the project: It is found that there is no impact due to this removing/uninstallation and storing equipment installed in the project.

Retirement/Termination of employees: It has been found there will have a negative impact on the socio-economic due to dismantling the project and retirement/termination of employees.

Demolition work of buildings: It is found that there is no impact to environment because the buildings are reinstate/reusable and do not need to be demolished

5.3 Assessment of Environmental and Socio-economic Impacts due to Potential Negative Impact Activities

In accordance with the impact ranking system, summary of Environmental and Socio-economic Impact are described for the operation activities with potential to significantly impact the environment are outlined in following Table.

Table 5.4: Environmental and Socio-Economic Impact Assessment of Project Activities

Sector	Types of Identified Potential Impacts	Potential Negative Impact Activities			
		Raw Materials Storage	Manufacturing of Plastic Items Operation Process	Products Transportation	Retirement/ Termination of employees during the dismantling period
Air	Emission of pollution gas	-	-	1	-
	Emission of particulate matter	-	-	-	-
	Noise	-	-	1	-
	Vibration	-	-	-	-
	Odor	-	1	-	-
Water	Surface water pollution	-	2	-	-
	Ground water pollution	-	-	-	-
	Surface water shortage	-	-	-	-
	Ground water shortage	-	2	-	-
Soil	Degraded soil quality	-	-	-	-
	Soil toxicity	-	-	-	-
	Soil pollution	-	-	-	-
	Soil erosion	-	-	-	-
Light	Light pollution	-	-	-	-

Biodiversity and ecosystems	Degradation of tree and forest	-	-	-	-
	Degradation of wildlife	-	-	-	-
Socio-economic	Loss of land and housing	-	-	-	-
	Difficulty of getting around	-	-	-	-
	Loss of employment and income	-	-	-	4
	Difficulty of drinking water	-	-	-	-
	Fire accident	2	1	-	-
	Accidental injury	1	1	1	-
	Health impact	-	-	-	-
	Social conflict	-	-	-	1
	Loss of visual landscape	-	-	-	-
	Loss of recreation place	-	-	-	-
	Loss of ancient cultural heritage	-	-	-	-

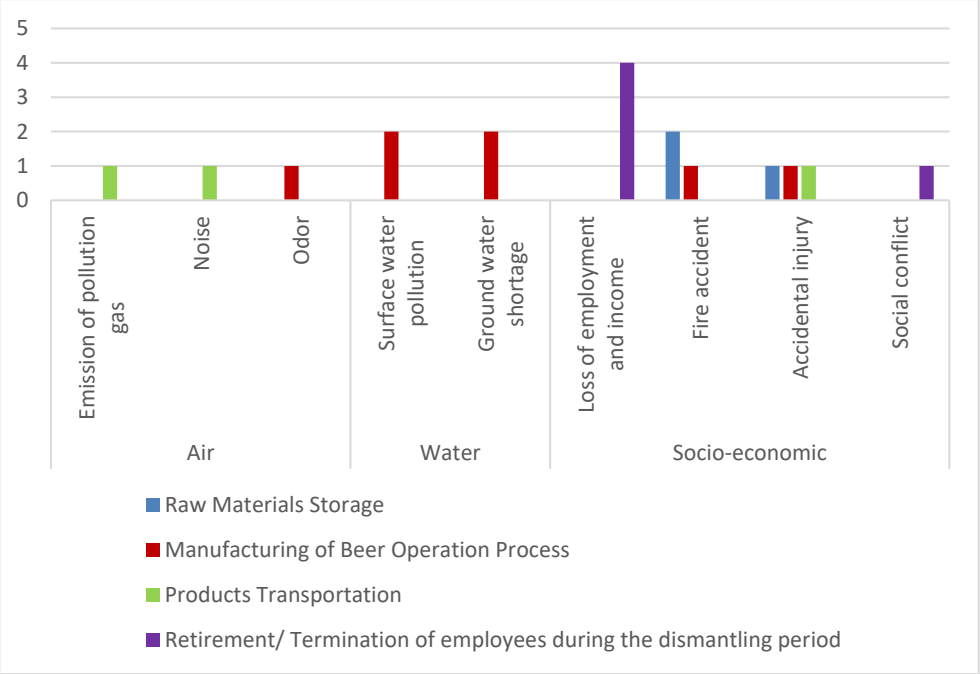

Figure 5.1: Summary of Environmental and Socio-Economic Impact Assessment Chart

It is found that there will be nine types of impacts due to the implementation of four types of project activities that may have potential negative impact of the project such as storage of raw materials, manufacturing of plastic items operation process, products transportation and retirement /termination of employees during the dismantling period. In nine types of impacts, it is found that eight types are Negligible and Low impacts and one of them is Critical impact.

5.3.1 Air

Emission of pollution gas, emission of particulate matter, noise and vibration may be possible in manufacturing and product transportation operation process due operating by combination of manpower and machineries but it is found that there will be only impact inside the project and they are Negligible.

5.3.2 Noise

Noise emission is from vehicle movement and especially from the operation of heavy equipment such as compressor, generator, and other vibrating machines. During the operation phase, noise emission is caused due to running machines, transportation of

raw materials and products and other production process activities, operation of heavy equipment such as compressors, diesel generators, pumps, and motors. The maintenance workshop could be the major sources of noise pollution. But it is found that there will be only impact inside the project and these are not much impact to the workers and surrounding environment because of using the engineering control of factory building design and using modernized machines. The noise level results from equipment manufacturers are accessible and .negligible.

5.3.3 Water

The potential impacts of surface water pollution and ground water shortage may be possible due to manufacturing of plastic items operation process because water consumption in domestic use of employees and generating of waste water from proposed project. But it is found that they are Low impact.

The water will be consumed not only the ground water source but also YCDC supply water and the tube well will be drilled under the permission of relevant authority in order to prevent the ground water shortage. For the prevention of surface water pollution, the wastewater sedimentation tank is placed in onsite of factory and all of the generated wastewater from the proposed project is sediment prior before discharging into the industrial drainage system.

5.3.4 Socio-economic

Among the types of impacts under the socio-economic sector, it is found that loss of employment and income will be only possible once at the time of project dismantling but it is need to provide assistance such as finding a replacement job, making compensation for loss, providing support and help etc., in a transparent manner in accordance with the Myanmar labor law because it is in critical impact level.

It must be performed such as wearing personal protective equipment in working, providing employees skills training, installation of firefighting equipment and providing necessary firefighting training in order to prevent fire accident and accidental injury in

operating of raw material storage, manufacturing of plastic items and product transportation processes.

5.4 Methodology of Screening of Potential Risk and Impact

5.4.1 Significance and Environmental Impact Assessment

Once an environmental impact is identified, the significance must be assessed before an attempt can be made to mitigate negative environmental impacts, the ultimate aim of the EIA process. The steps involved in the assessment involve the following steps:

Step 1: Identify activity;
Step 2: Identify environmental aspect;
Step 3: Identify environmental impact;
Step 4: Assess significance of environmental impact.

In this study, terminology that was used in assessing the significance of an environmental impact is defined in following Table.

Table 5.5: Terminology Used to Describe and Assess Environmental Impacts

Category	Terminology		Definition
Scoring of Impact	Frequency	Continuous - 5 Frequent - 4 Infrequent - 3 Rare - 2 Single Event - 1	Uninterrupted or on daily basis More than 10 times or > 50% Between 5 – 10 times or > 10% Less than 5 times or < 10% Single Event in a project period
	Likelihood	Certain - 1 Likely - o.75 Unlikely - 0.35 Improbable - 0.1 Not credible/ probable - 0	Impact possibility estimated to be 100% Impact possibility estimated as > than 50 but < 100% Impact possibility estimated as > than 20 but < 50% Impact possibility estimated as greater than zero but < 20%. Zero estimated possibility of impact
	Magnitude (2)	Very low - 1 Low - 2 Medium - 3 High- 4 Very High - 5	Parameter < 10 % limit criterion Parameter 10 – 50 % limit criterion Parameter 50 – 100 % limit criterion Parameter 100 – 200% limit criterion Parameter > 200 % limit criterion
Potential Significance	Significance	Negligible < 2 Low – 2 - 4 Medium – 5 - 9 High - 10 -16 Critical - 17+	Frequency x Likelihood x Magnitude
Description of Impact (NOT SCORED)	Extent	Local Regional National International	Less than 2 km. More than 2 km, and within Myanmar Continental Shelf Impact to shore activities Beyond Myanmar Continental Shelf

	Duration	Short Medium Long	Within project period (30 + 60 days) Not more than 6 months after the project period Greater than 6 months
Type of Impact	Action	Direct Indirect	Impact caused solely by activities within the scope of the project Impact caused by activities partly outside the scope of the project.

All terms are characteristics of the impact (s). For example, duration refers to duration of impact, not the activity causing it.

5.4.2 Environmental Impact Evaluation

The significance of each impact is the product of Frequency x Magnitude x Likelihood of the Impact Occurring ranking is divided into five orders of significance, CRITICAL, HIGH, MEDIUM, LOW and NEGLIGIBLE as shown in below Tables.

Existing engineering control, standard procedures and standard specification that have been in place as mitigation measures to reduce associated impact or risk were also considered in the impact assessment.

Table 5.6: Environmental Impact Evaluation Criteria Table

Frequency x Likelihood	1	2	3	4	5
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5

Magnitude

Table 5.7: Environmental Impact Significance

Score (Frequency x Likelihood x Magnitude)	Significance
≥ 17	**Critical**
11 - 16	**High**
6 - 10	**Medium**
2 - 5	**Low**
<2	**Negligible**

For example, the impact category following an accidental event may be minor (2), but the probability of the event to occur may be medium (3) so the environmental risk for the event would be (6) and the risk ranking would be medium

5.5 Summary of Mitigation Actions Required for Proposed Project Activities with Significant Environmental Impacts (Low, Medium, High and Critical)

Based on the assessment of potential environmental impact, there is no activity identified having significant (HIGH and CRITICAL) adverse environmental impacts. They are either LOW or NEGLIGIBLE after taking into account specific engineering design features. However, in line with Myanmar Environmental Law & Regulation requirement and good industrial practices, a number of actions have been prescribed to ensure continual environmental management improvement.

The summary of those activities and their respective required actions and person responsible is presented in below Table.

Table 5.8: Summary of EMP Action Required and Person Responsible

No.	Category/Aspect	Impact Significance	Actions Required to mitigate impact	Person Responsible	Timing
(A)	**Project Operation (Plastic Cover Lid Production)**				
1	Noise from Power Generator / Gas Turbine / Air Compressor operation	L	1. To use sound proof type 2. To plan Routine maintenance to minimize downtime 3. To monitor and record ambient sound level regularly	Project Manager	Throughout the operation period
2	Domestic wastewater and operational produced water	L	1. Carry out necessary treatment system on domestic water and produced water from operational activities prior to dispose off 2. Regular water quality monitoring program	Project Director	Throughout the project period
3	Fuel and Oil Spill at fuel and chemicals Storage area	L	1. To store at designated fuel and chemical storage area 2. To construct storage area with secondary containment system and fencing 3. Only identified fuel and chemicals	Project Director	Before Development operation Once a

No.	Category/Aspect	Impact Significance	Actions Required to mitigate impact	Person Responsible	Timing
			with relevant MSDS/CSDS to be stored separately to avoid any oxidation / reaction 4. Regular inspection and recording as of monthly basic		month during operation Before Development operation
4	Social conflict between local people and project workforce	Negligible	Corporate social responsibility program 1. Create opportunity for the local community to work at project 2. Enhance in health care of local community with providing necessary medical assistance to local people 3. Enhance education sector development for local community in providing with school buildings, equipment and tools, scholarship program for students, etc. 4. Respect traditional custom each	Project Director	Throughout the project period

No.	Category/Aspect	Impact Significance	Actions Required to mitigate impact	Person Responsible	Timing
			other and support to the local community, 5. Providing necessary training to people 6. Actively participating and sponsoring in local religious events and activities 7. Always inform, get advice and agreement from local authority and local community leader prior to precede the project activities.		
5	Hazardous waste management	Negligible	1. Segregate waste type 2. Monitor the quantity of each type of hazardous waste using waste consignment note 3. Return recyclable waste e.g., waste paint, solvent, chemicals, drilling fluids, etc. to supplier 4. Recycle waste used oil	Transport Supervisor & Driver	Throughout the project period

No.	Category/Aspect	Impact Significance	Actions Required to mitigate impact	Person Responsible	Timing
			5. Dispose non-recyclable waste to YCDC 6. Audit on the waste management at project worksite and the supplier's / YCDC's waste disposal site	HSE Representative	
6	Fuel and chemicals spill during transfer	Negligible	1. To obtain fuel and chemicals transfer procedure from contractor 2. To verify personnel has been given training to transfer fuel and chemicals safely 3. To ensure volume of fuel and chemicals transfer is not more than maximum allowable of the storage capacity 4. To ensure supply vehicle has in place an oil spill response plan and oil spill response capability	Project Director	Before Development operation Before Development operation During the fuel and chemicals transfer
7	Air Pollution from Operation of standby diesel generators	Negligible	1. Use of low Sulphur diesel that are readily available in the market	Project Director	Prior to commence

No.	Category/Aspect	Impact Significance	Actions Required to mitigate impact	Person Responsible	Timing
			2. Regular air quality monitoring program		project activity
8	Non-hazardous solid waste management (e.g., earth, plastics, etc.)	Negligible	1. To follow YCDC instruction and notification on construction waste 2. Segregate and reuse to maximize usage as much as possible 3. Dispose non-reusable waste to appropriate/approved recycling Center or dumping ground defined by YCDC 4. Monitor the quantity of each type of non-hazardous waste using waste register	Transport Supervisor & Driver	Throughout the project period
9	Kitchen and Sanitary Waste	Negligible	1. To develop Waste management procedure 2. Food waste to be optimized by feeding farm animals as part of wise waste management 3. Sewage will be discharged using	Project Director	Before operation Throughout the project

No.	Category/Aspect	Impact Significance	Actions Required to mitigate impact	Person Responsible	Timing
			septic tank 4. Routine inspection and monitoring of discharging area and feeding practice		period
10.	Social conflict between local villager and project workforce	Negligible	1. Corporate social responsibility program 2. Create opportunity to work at project 3. Enhance in health and education sector development for local community 4. Develop sustainable social life	Project Manager	Throughout the project period
(B)	**Project Abandonment (Plastic Cover Lid Production)**				
1	Movement of project cargo vehicle	M	1. Optimize transportation facility. 2. Assign vehicle & driver minimum one day ahead. Conduct Morning safety briefing 3. Vehicle inspection & report immediately if any anomaly	Project Director Transport Supervisor Vehicle Driver	Throughout the project Daily Every

No.	Category/Aspect	Impact Significance	Actions Required to mitigate impact	Person Responsible	Timing
			observed. Select route & time to minimize disturbance to other road users 4. To follow YCDC instruction and notification on construction project vehicle		morning & before drive
2	Waste, Dust, & Noise from Demolition	L	1. All wastes inside project area to clear and send designated location under supervision and approval by YCDC 2. Excavated ground soil to use inside project area for levelling the ground and only extra soil to send designated location using safe transportation system as per YCDC instruction 3. To wash down the truck contaminated with muds using for waste transport prior to move in	Contractor	Daily during land clearing period

No.	Category/Aspect	Impact Significance	Actions Required to mitigate impact	Person Responsible	Timing
			and out. 4. To operate using sound proof type machine at only daytime when background noise is high		
3	Waste, Dust, Noise, from Superstructure	L	1. To follow YCDC instruction and notification on construction waste 2. Segregate and reuse to maximize usage as much as possible 3. Dispose non-reusable waste to appropriate/approved recycling Center or dumping ground defined by YCDC 4. All waste generated from construction to collect, record, and dispose at YCDC designated location 5. The truck using for waste transport to wash down all contaminated muds prior to move in and out. 6. To operate using sound proof type	SACL Assigned Contractor Truck Driver Project Director	Throughout project period Daily

No.	Category/Aspect	Impact Significance	Actions Required to mitigate impact	Person Responsible	Timing
			machine at only daytime when background noise is high 7. To use proper scaffolding and cover net for the high rise building which complying with YCDC instruction	Project Director	Throughout the project
5.	Social conflict between employee and project investor		1. Create ways for another work 2. Follow the labour law 3. Enhance of related social welfare program 4. Compensate according to contract and law 5. Develop sustainable social life	SACL	Throughout the project

5.6 Cumulative/Residual Impact Assessment

The proposed project is manufacturing of plastic items operation project and the project will be operated out only within the industrial zone, so it is found that there will be no significant impact and residual impact on the environment and human beings due to the project operation activities. It has been found that there are no possible significant negative impacts when the project itself is not very significant and different types of projects or areas are combined with current or potential impacts of projects operating in the same area.

5.7 Summary of Potential Impacts and Mitigation Measures

SACL Plastic Injection Molding Factory Project is carried out in operation phase with operation & maintenance activities include SACL plastic items production mentioned in Section – 3. Environmental risks which may come out from its normal operation are generation of domestic general solid waste and domestic wastewater only. Most of the potential impacts associated with normal operation of the SACL relate to the storage and disposal of wastes. A waste management plan in complying with standing instruction under Yangon City Development Committee, YCDC.

Decommission/Closure/Post Closure activities may include de-installation of facilities and housekeeping together with reinstatement activities according to agreement between landlord and SACL. There will be no environmental impact due to nature of and Environmental risks which may come out from its closure of are generation of domestic general solid waste and domestic wastewater only. However, there will be social impact to the employee working at SACL and therefore it is requirement to comply with existing Myanmar rules & regulations, and procedures & standing instruction especially for the employee has been included.

5.8 Mitigation Measures

Necessary mitigation measures must be identified and implemented in order to mitigate potential environmental impacts or to prevent it from happening at all. The mitigation measures are implemented which complying with existing Law, Rules & Regulations,

Procedures, Orders & Guidelines. And it is also necessary to perform corporate social responsibility (CSR) activities of businesses and develop local communities.

The mitigation measures according to the impact are presented detail in the following table and will be implemented under the leadership of the project manager / general manager.

Summary of Environmental Impact and Mitigation Measures are described for the operation activities with potential to significantly impact the environment are outlined below in below.

Table 5.9: Mitigation Measures Depening on the Impact

Impacted Sector	Sources of impacts	Mitigation Measures	Responsible Person
Air	➢ operation of fuel consumed machineries and equipment	➢ Regular maintenance of machineries equipment and use of high-quality fuel ➢ Management to minimize fuel consumption	Project officer/ General manager
	➢ Particulate matter from production	➢ Setting the closing building system not to emit outside ➢ Regular matainence of machineries	Project officer/ General manager
	➢ Noise from operation process	➢ Operating inside the building enclosure ➢ Working at day time and avoiding of working at night	Project officer/ General manager
Water	➢ Discharge of waste water	➢ Construction of small water filter tanks ➢ Install waste water equipment and if required to discharge of in accordance with the guidelines ➢ Management to minimize the water consumption	Project officer/ General manager
Soil impact/ erosion	➢ Spilled out and disharge of used oil and liquid	➢ Systematic disposal at designated disposal site area ➢ Storage in concrete enclosures	Project officer/ General manager
	➢ Water erosion	➢ Implementing of good water flow drainage system and drains	Project officer/ General manager
Socio-economic	➢ Loss of employment and income	➢ Compensation/pension in accordance with the law at the closure of project ➢ finding replacement job for employees	Project officer/ General manager

	➢ Health impact/ Accidental injury	➢ Working by wearing personal protective equipment ➢ Management for good ventilation ➢ Perform social welfare / insurance for employees	Project officer/ General manager
	➢ Fire accident	➢ Installation of firefighting equipment ➢ Training for firefighting ➢ Keeping flammable materials separately and organized	Project officer/ General manager
	➢ Social conflict	➢ Enforcement and complying of occupational rules and regulations ➢ Establishment of mutual relationship with neighboring factory and local community	Project officer/ General manager

6.0 PUBLIC CONSULTATION AND DISCLOSURE

Consultations with stakeholders on environmental issues have been taken up as an integral part of the process. These consultations provided inputs to the various sector specialists in identification of the felt needs of the communities, and the relevant stakeholders.

Results of the public consultation and public participation processes, recommendations received from the public, and the Project Proponent's written responses to comments received during that process is present in this section.

6.1 Introduction

Public consultations on environmental management programs are designed to provide a real understanding of project issues and the aim is to make the public aware of the environmental impact of project operations and the increase in job opportunities caused by the proposed project. By participating in the consultation process with anyone affected by the proposed project, the business community will be able to resolve any issues that may arise in advance. For the reporting of environmental management plan, the purpose of consultation meeting is to inform and request comments about of the project to the local community.

The process of public consultation and information disclosure will be implemented in order to ensure transparency and long-term implementation of the project Consultations with stakeholders on environmental issues have been taken up as an integral part of the process. These consultations provided inputs to the various sector specialists in identification of the felt needs of the communities, and the relevant stakeholders. In implementing the public consultation process, SACL undertook consultation with relevant department of the proposed project, industrial zone management committee, meeting informative invitation for those interested to attend the meeting in order to get the advices and opinions about the proposed project.

6.2 Methodology and Approach

Methodology applied as personal meeting, formal meeting, and official meeting method, discussion method, interview method, visual inspection method, etc. to consult with relevant parties for the proposed project. The outputs of the consultation sessions are documented in on Stakeholder Consultations. Consultations held with the following stakeholders:

- Officials of Regional Government Departments;
- Local Authority of Industrial Zone Committee
- Relevant Authority of Local Region
- Contractors and employee, investors adjacent to factory and,
- Local Communities; adjacent/around of the project factory area.

It approaches two methods for consultation and disclosure, which are meeting and receiving suggestion letters.

6.3 Public Consultation and Public Participation Process

Public consultation is held with the purpose such as ability to present of information about the project to local community, being able to know about CSR and local development performance of the proposed project, being able to know the opinions of the local community on the proposed project, being able to know and participate in activities that will not impact the environment and monitoring etc., by consulting with local community around the project area. It is a mutually beneficial process as the project and the local community can establish a mutual understanding and relationship by continuing the implementation of commerce complaints, advices and grievances mechanism.

In conducting of public consultation process, consultation will be held with not only with the local communities but also with the regional relevant authorities within region of the proposed project by project proponent.

The consultation will be held by SACL as follows:

- Invitation to local community, relevant authority and stakeholders around the proposed project, Invitation to interested parties to attend from the project website, Invitation by invitation method of standing poster/vinyl near the project for the public consultation.
- Presentation of proposed project information and Environmental Conservation Information at public consultation.
- Discussion with participants and if there are any requests, replying action points and responsibilities with action plans.
- Implementation of comments and suggestions of attendees, necessary action by preparing and recording meeting minutes.

Figure 6.1: Invited and Attended Person of Different Organization

6.4 Summary of Consultation Activities Undertaken

Public Consultation for the proposed project, Plastic Injection Molding Factory, has been held to present project activities, affects & impacts, background condition &

management plan for environmental conservation by Sweet Angel Co., Ltd. in collaboration with NeoTech environmental study team. Representatives of proposed project and Representatives of Local Community from wards located near to the project in are actively participated and discussed. There will be cooperation between SACL, local authority, and local community to find alternative ways of living such as farming, plantation, etc., as part of CSR program. Local community development, corporate social responsibility (CSR) programs and more job creation for local community were also taken by the promoter.

Environmental Study team has visited, interviewed, and consulted with officials, SACL employees working at site, local community people throughout study period (September, 2024). On 25th September 2024, a public consultation meeting and disclosure ceremony was held at SACL's office meeting hall of the proposed project site located in, Industrial Zone, Shwe Pyi Thar Township, and Yangon Region in order to disclose the project information and to request comments about of the project to the following personnel

- Institutions (Local or Government Authorities from ECD, Industrial Zone Management Committee and Shwe Pyi Thar Township)
- Individuals (Groups with special interests, business/industrial community etc.)
- Project Stakeholder (Representative of proposed project factory and SACL)
- Interested persons (Representative of neighboring factory, etc.)

SACL held the public consultation in collaboration NeoTech Myanmar Co., Ltd. environmental study team to present project activities, affects & impacts, background condition & management plan for environmental conservation. The representatives of proposed project, environmental consultants and relevant authorized person are actively participated and discussed.
Consultation will be included are briefed as below:

- Encourage conducting of public consultation meeting and welcome to this project type which is suitable for local community
- Explained about environmental policy, procedures and laws

- Consulted with all relevant government officials and local authority to get clearance for approval on proposed project.
- Welcome on conducted CSR activity and expecting more CSR activities for the local community
- Guideline to comply under existing Myanmar Law & regulations as well as procedures & instruction.
- Expression from local community to create more job opportunity for local people.
- Pleased to know about information sharing and asking for feedback

There will be cooperation between SACL, local authority, and local community to implement EMP and CSR program. Local community development, corporate social responsibility (CSR) programs and more job creation for local community were also taken by the promoter

6.5 Public Consultation Meeting Minutes

Table 6.1: Summary Notes on the Public Consultation Meeting

Sweet Angel Co., Ltd. Plastic Injection Molding Factory Project Public Consultation	
Venue	SACL Factory Office Meeting Hall located at at Plot No.104, Cherry Street, Industrial Zone (1), Shwe Pyi Thar Township, Yangon Region
Date	25th September 2024
Time	9:30 - 11:30 am
Organized by	Chill Beverage Company Limited incorporation with Dr. Zin Min and consultants
Invited Person	Relevant and Local authority, Representatives of Local community, other relevant person were invited to attend the Meeting
Number of Participants:	22 participants (Including invited persons, Local authority, representative of Local community, stakeholders, Project proponent (Representative of SACL) and Third-Party Organization (Dr. Zin Min and consultants).

Figure 6.2: Photo Records of Public Consultation Meeting

6.5.1 Invitation & Attendance List

The invitation letter & attendance list are described in the below figures.

SWEET ANGEL COMPANY LIMITED

ပတ်ဝန်းကျင်နှင့် လူမှုအကျိုးသက်ရောက်မှုဆိုင်ရာတွေ့ဆုံဆွေးနွေးပွဲ

ဖိတ်ကြားလွှာ

စီမံကိန်းနှင့်ပတ်သက်၍ တွေ့ဆုံဆွေးနွေးပွဲအားအောက်ဖော်ပြပါအစီအစဉ်အတိုင်း

ကျင်းပပြုလုပ်သွားမည်ဖြစ်သဖြင့် တက်ရောက်ပေးပါရန် လေးစားစွာဖိတ်ကြားအပ်ပါသည်-

ကျင်းပမည့် နေ့ရက် - ၁၂. ၉. ၂၀၂၄(ဗုဒ္ဓဟူးနေ့)

ကျင်းပမည့် အချိန် - နံနက် (၉:၃၀) နာရီ မှ (၁၁ : ၃၀)နာရီအထိ

ကျင်းပမည့် နေရာ - အစည်းအဝေးခန်းမ

Figure 6.3: Invitation Letter

Sweet Angel Company Limited
NO.104, SETMU(7) STREET, INDUSTRIAL ZONE(1) ,SHWEPYITHAR TOWNSHIP, YANGON ,MYANMAR. TEL: 09-440141112,09-440141113

ရန်ကုန်တိုင်းဒေသကြီး၊ရွှေပြည်သာမြို့နယ်၊အမှတ်(၁)ရပ်ကွက်၊စက်မှု(၇)လမ်း၊အမှတ်(၁၀၄)
ရှိ Sweet Angel Co., Ltd. စက်ရုံ၊
ပလပ်စတစ်ဘူး၊ ပလပ်စတစ်ခြင်းနှင့် ပလပ်စတစ်ခွက် ထုတ်လုပ်ရောင်းချခြင်း
လုပ်ငန်းတွင်ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan)
EMP Plan ရေးဆွဲရာတွင်အထောက်အကူဖြစ်စေရေးအတွက်ပတ်ဝန်းကျင်နှင့်လူမှုအကျိုး
သက်ရောက်မှုဆိုင်ရာတွေ့ဆုံဆွေးနွေးပွဲကိုတက်ရောက်လာကြသောဌာနဆိုင်ရာများ၊
ရပ်ကွက်များနှင့်အနီးပတ်ဝန်းကျင်စက်ရုံများမှဧည့်သည်တော်များစာရင်း

ရက်စွဲ၊၂၀၂၄ခုနှစ်၊ စက်တင်ဘာလ(၂၅) ရက်
အချိန်၊ နံနက် (၁၀း၀၀) နာရီ

စဉ်	အမည်	ရာထူး	ဌာန/ ဆက်သွယ်ရန်ဖုန်း/ E-mail	လက်မှတ်
၁			မြို့နယ်စီမံအုပ်ချုပ်ရေးအဖွဲ့ ရွှေပြည်သာမြို့နယ်	
၂			မြို့နယ်အထွေထွေအုပ်ချုပ်ရေးဦးစီးဌာန ရွှေပြည်သာမြို့နယ်	
၃	ဦးမြင့်ဇော်ဦး	လက်ထောက်ညွှန်ကြားရေးမှူး	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ရန်ကုန်တိုင်းဒေသကြီး	
၄			ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ မင်္ဂလာဒုံခရိုင်ရုံး	
၅	[illegible]	[illegible]	မြို့နယ်စည်ပင်သာယာအုပ်ချုပ်ရေးမှူးရုံး ရွှေပြည်သာမြို့နယ်	
၆			မြို့နယ်အလုပ်သမားညွှန်ကြားရေးဦးစီးဌာန ရွှေပြည်သာမြို့နယ်	
၇			မြို့နယ်မီးသတ်ဦးစီးဌာန ရွှေပြည်သာမြို့နယ်	
၈			မြို့နယ်ကျန်းမာရေးဦးစီးဌာန ရွှေပြည်သာမြို့နယ်	
၉			စက်မှုဇုန်စီမံခန့်ခွဲရေးကော်မတီ ရွှေပြည်သာမြို့နယ်	
၁၀			အမှတ်(၁၂)ရပ်ကွက် ရွှေပြည်သာမြို့နယ်	
၁၁			ဒီးကုန်းကျေးရွာ ရွှေပြည်သာမြို့နယ်	

စဉ်	အမည်	ရာထူး	ဌာန/ဆက်သွယ်ရန်ဖုန်း/ E-mail	လက်မှတ်
၁၂			အမှတ်(၁)ရုပ်ကွက် ရွှေပြည်သာမြို့နယ်	
၁၃			အမှတ်(၂)ရုပ်ကွက် ရွှေပြည်သာမြို့နယ်	
၁၄	U Kyaw Chan	General Manager	Human Resources Department 09-55-78888	
၁၅	Aung Naing Htay	Manager	IT Department	
၁၆	Htoo Khanna Linn	Consultant NeoTech		
၁၇		"		
၁၈	Nu Nu Aye	consultant NeoTech		
၁၉	Daw Min Htet	manager	09-5199994	
၂၀	Daw Kyi Kyi Win	SO	ECD	
၂၁	Daw Ya Mone	ADSO	ECD	
၂၂		Manager	Vehicle	
၂၃	Kyaw Saad Min	Manager	"	
၂၄	Jaikamal	Production Engineer	09964202436 QAI	

စဉ်	အမည်	ရာထူး	ဖုန်းနံပါတ်/ E-mail	လက်မှတ်
၂၅	U Kyaw Kyaw Htwe	Production Manager	09-5199284	
၂၆	Daw Hsu Nadi Lwin	Engineer	09 979256889	
၂၇	Mg Chit	IT	09969612265	
၂၈	U Tay Zar Lynn	accounts	09.453891871	
၂၉	Khin Lin Oo	Engineer	09-421175960	
၃၀	Daw Aye Aye Maw	ဌာနကြီးမှူး	09-979516780	
၃၁				
၃၂				
၃၃				
၃၄				
၃၅				

Figure 6.4: Signed Attendance List Sheet

6.5.2 Agenda

Agenda (1)	Registration and Announcing the Opening Ceremony
Agenda (2)	Opening Remarks by General Manager, Plastic Injection Molding Factory of Chill Beverages Co., Ltd.,
Agenda (3)	Presentation about Manufacturing of Plastic items Project of Sweet Angel Company Limited by Relevant Person of Plastic Injection Molding Factory of Sweet ANgel Co., Ltd.,
Agenda (4)	Presentation of Environmental Management Plan Procedures, Study Work and Sections of EMP Report by Environmental Consultant of NeoTech Myanmar Co., Ltd.
Agenda (5)	Exchange Opinions, Questions and Answers
Agenda (6)	Announcing Closing Ceremony and Filling, Collecting the Comment Survey Forms

6.5.3 Conclusion of local communities' attitudes and comments

After presentations, to get local community's idea on the project, attitude survey sheets were giving to attendees and survey. Totally (12) sheets of all given attitude survey sheets were got back and according to that survey sheets, they seem the proposed project is well and fully supported the proposed project.

As the opinions on the proposed project from (12) survey sheets, noted that
- it will benefit for local economic, develop job opportunity for local community
- to implement environmental (soil, water, air) conservation according to the standard and to be prepared if necessary
- welcome to the proposed project and to not only be able to substitute foreign imports, but to try to export abroad
- welcome and appreciate that the proposed project implementation systematically
- it is good because of systematically operating.
- the implantation of the proposed project is good for job opportunities for local people
- it is suitable project and should be implanted.

- it is good and suitable for local community
- to manage quality control and labor safety in mixing processes
- it is fine because safety and producing good quality products

As suggestion on the proposed project, it was found that
- to comply the standards set by the government, to undertake regular monitoring for waste management and to take regular health care for employees
- to undertake safely in order to no environmental (soil, water, air) hazard due to waste materials of the proposed project
- to undertake for improvement and training of employee skill development and to take employees healthcare.
- to emphasize environmental conservation not to be hazard in project implementation
- to undertake occupational and environmental safety seriously
- to implement the project by consulting with relevant technician of third-party organization.
- to describes implementation of environmental mitigation measures which include in EMP, to comply the mitigation measures in order to mitigate environmental impact to minimum.
- to describe data and results completely in EMP report
- to undertake not to be water pollution in our township due to project implementation
- to take particular care for occupational safety of employees
- to undertake and comply the environmental policy
- to take particular care air pollution and occupational safety
- to implement systematically and natural disaster safety

The attitude survey sheets are brief as follow:

Sweet Angel Company Limited

NO.104, SETMU(7) STREET, INDUSTRIAL ZONE(1), SHWEPYITHAR TOWNSHIP, YANGON, MYANMAR. TEL: 09-440141112, 09-440141113

Sweet Angel Co.,Ltd. ၏ ပလပ်စတစ်ဘူး၊ ပလပ်စတစ်ခြင်း နှင့် ပလပ်စတစ်ခွက်ထုတ်လုပ်ရောင်းချခြင်းလုပ်ငန်းစီမံကိန်းနှင့်ပတ်သတ်၍ လူမှု-စီးပွားနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာသဘောထားများအား စစ်တမ်းကောက်ယူခြင်း

၁	အမည်	-	ဦးသိန်းကို
၂	မှတ်ပုံတင်အမှတ်	-	[illegible]
၃	အသက်(မွေးသက္ကရာဇ်)	-	၂၉.၁၀.၅၄
၄	ပညာအရည်အချင်း	-	BA (ECO)
၅	အလုပ်အကိုင်	-	မြို့တော်စည်ပင်
၆	နေရပ်/ဖုန်း	-	[illegible] 09431706 85
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	-	[illegible]
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	-	[illegible]
၉	လက်မှတ်	-	(signature)

Sweet Angel Company Limited

NO.104, SETMU(7) STREET, INDUSTRIAL ZONE(1), SHWEPYITHAR TOWNSHIP, YANGON, MYANMAR. TEL: 09-440141112, 09-440141113

Sweet Angel Co.,Ltd. ၏ ပလပ်စတစ်ဘူး၊ ပလပ်စတစ်ခြင်း နှင့် ပလပ်စတစ်ခွက်ထုတ်လုပ်ရောင်းချခြင်းလုပ်ငန်းစီမံကိန်းနှင့်ပတ်သတ်၍ လူမှု-စီးပွားနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာသဘောထားများအား စစ်တမ်းကောက်ယူခြင်း

၁	အမည်	-	[illegible]
၂	မှတ်ပုံတင်အမှတ်	-	၁၂/[illegible](နိုင်)[illegible]
၃	အသက်(မွေးသက္ကရာဇ်)	-	၁၁.၅.၁၉၉၁
၄	ပညာအရည်အချင်း	-	BA (Hist). MBA (SSM)
၅	အလုပ်အကိုင်	-	YCDC
၆	နေရပ်/ဖုန်း	-	[illegible] 09420032127
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	-	[illegible]
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	-	[illegible]
၉	လက်မှတ်	-	(signature)

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၁	အမည်	–	ဦးအောင်ကိုကိုဌေး
၂	မှတ်ပုံတင်အမှတ်	–	၇/ဖမန(နိုင်) ၂၀၁၅၃၀.
၃	အသက်(မွေးသက္ကရာဇ်)	–	၁၅.၅.၁၉၇၂
၄	ပညာအရည်အချင်း	–	B.C.Tech.
၅	အလုပ်အကိုင်	–	IT Manager.
၆	နေရပ်/ဖုန်း	–	104, Cherry Industrial zone (1) Shwe pyi thar Township. Yangon.
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	–	[illegible]
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	–	[illegible]
၉	လက်မှတ်	–	(signature)

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၁	အမည်	–	ဦးကျော်စွာမင်း
၂	မှတ်ပုံတင်အမှတ်	–	၁၃/ခဇက(နိုင်) ၀၀၁၅၅၂.
၃	အသက်(မွေးသက္ကရာဇ်)	–	၂၇-၅-၁၉၇၄.
၄	ပညာအရည်အချင်း	–	BA (Myanmar).
၅	အလုပ်အကိုင်	–	Manager.
၆	နေရပ်/ဖုန်း	–	[illegible]
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	–	[illegible]
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	–	[illegible]
၉	လက်မှတ်	–	(signature)

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၁	အမည်	–	ဦး[illegible]
၂	မှတ်ပုံတင်အမှတ်	–	[illegible] ၀၀၂[illegible]
၃	အသက်(မွေးသက္ကရာဇ်)	–	13. 1. 1984
၄	ပညာအရည်အချင်း	–	B.E (Mechanical)
၅	အလုပ်အကိုင်	–	Production Engineer
၆	နေရပ်/ဖုန်း	–	[illegible]
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	–	[illegible]
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	–	[illegible]
၉	လက်မှတ်	–	(signature)

Sweet Angel Company Limited

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၁	အမည်	–	ဦးကျော်ကျော်ဌေး
၂	မှတ်ပုံတင်အမှတ်	–	၁၂/ဥကတ(နိုင်)၁၃၀၅၄၆
၃	အသက်(မွေးသက္ကရာဇ်)	–	၁၅.၁၀.၁၉၇၃
၄	ပညာအရည်အချင်း	–	B.Tech (Chemical)
၅	အလုပ်အကိုင်	–	Production Manager
၆	နေရပ်/ဖုန်း	–	[illegible]
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	–	
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	–	
၉	လက်မှတ်	–	(signature)

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၁	အမည်	–	ဦးကျော်ဝင်းမြင့်
၂	မှတ်ပုံတင်အမှတ်	–	၁၂/တကန(နိုင်)၁၇၀၁၅၃
၃	အသက်(မွေးသက္ကရာဇ်)	–	၄၂ - ၆.၂.၁၉၈၂
၄	ပညာအရည်အချင်း	–	B.A_Eco.
၅	အလုပ်အကိုင်	–	စက်ရုံ
၆	နေရပ်/ဖုန်း	–	[illegible]
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	–	[illegible]
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	–	[illegible]
၉	လက်မှတ်	–	

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၁	အမည်	–	ဦးအောင်အောင်လတ်
၂	မှတ်ပုံတင်အမှတ်	–	၁၂/အစန(နိုင်)၁၅၉၈၀၀၅
၃	အသက်(မွေးသက္ကရာဇ်)	–	၄၅နှစ်
၄	ပညာအရည်အချင်း	–	၁၀ တန်း
၅	အလုပ်အကိုင်	–	Production Manager
၆	နေရပ်/ဖုန်း	–	0943052199
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	–	[illegible]
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	–	
၉	လက်မှတ်	–	

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ပလပ်စတစ်ခွက်ထုတ်လုပ်ရောင်းချခြင်းလုပ်ငန်းစီမံကိန်းနှင့်ပတ်သတ်၍
လူမှု–စီးပွားနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာသဘောထားများအား စစ်တမ်းကောက်ယူခြင်း

၁	အမည်	–	ဒေါ်ခင်လင်းဦး
၂	မှတ်ပုံတင်အမှတ်	–	၇/ရပသ(နိုင်)၀၃၈၆၈၀
၃	အသက်(မွေးသက္ကရာဇ်)	–	၂၃.၁၀.၁၉၈၅
၄	ပညာအရည်အချင်း	–	B.E (Electronics), BSc (Physics)
၅	အလုပ်အကိုင်	–	Engineer (Diesel King Co., Ltd)
၆	နေရပ်/ဖုန်း	–	၇/၈/၂၆၆(စ)၊ ပေါ်မင်းကြီးလမ်း၊ ရွှေပြည်သာမြို့
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	–	ပလတ်စတစ်လုပ်ငန်းပြုလုပ်ခြင်းတွင် EMP အစီအစဉ် ရေးဆွဲခြင်းမှာ အလွန်ကောင်းမွန်သော project ဖြစ်ပါသည်.
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	–	ရေဆိုး၊ အနံ့ဆိုးနှင့် ပတ်ပတ်လည်များကို သေချာစွာ စီမံခန့်ခွဲမှုများကို တွေ့ရှိရပါသည်.
၉	လက်မှတ်	–	(signature) 25.9.24

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ပလပ်စတစ်ခွက်ထုတ်လုပ်ရောင်းချခြင်းလုပ်ငန်းစီမံကိန်းနှင့်ပတ်သတ်၍
လူမှု–စီးပွားနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာသဘောထားများအား စစ်တမ်းကောက်ယူခြင်း

၁	အမည်	–	မဆုနှင်းမီလွင်
၂	မှတ်ပုံတင်အမှတ်	–	၇/ပမန(နိုင်)၁၅၄၀၆၅
၃	အသက်(မွေးသက္ကရာဇ်)	–	၂၉
၄	ပညာအရည်အချင်း	–	BE.EP
၅	အလုပ်အကိုင်	–	Engineer
၆	နေရပ်/ဖုန်း	–	
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	–	
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	–	
၉	လက်မှတ်	–	(signature)

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Date.................

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၁	အမည်	-	ဒေါ်အေးအေးမော်
၂	မှတ်ပုံတင်အမှတ်	-	၁၂/ရပသ(နိုင်)၀၂၅၅၂၃
၃	အသက်(မွေးသက္ကရာဇ်)	-	၁၈.၃.၁၉၆၇
၄	ပညာအရည်အချင်း	-	B.A. (Myanmar)
၅	အလုပ်အကိုင်	-	ဌာနကြီးမှူး
၆	နေရပ်/ဖုန်း	-	အမှတ် ၃၆/၁(က)၊ ဈေးတစီလမ်း၊ ၆/၁၄၂ ရပ်ကွက်၊ ရွှေပြည်သာမြို့။
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	-	စီမံကိန်းသည်အဆင်ပြေကောင်းမွန်ပါသည်။
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	-	-
၉	လက်မှတ်	-	(signature)

Sweet Angel Company Limited

NO.104, SETMU(7) STREET, INDUSTRIAL ZONE(1) ,SHWEPYITHAR TOWNSHIP, YANGON ,MYANMAR. TEL: 09-440141112,09-440141113

Date.................

Sweet Angel Co.,Ltd. ၏ ပလပ်စတစ်ဘူး၊ ပလပ်စတစ်ခြင်း နှင့် ပလပ်စတစ်ခွက်ထုတ်လုပ်ရောင်းချခြင်းလုပ်ငန်းစီမံကိန်းနှင့်ပတ်သတ်၍ လူမှု-စီးပွားနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာသဘောထားများအား စစ်တမ်းကောက်ယူခြင်း

၁	အမည်	-	ကိုအောင်ဘုန်း
၂	မှတ်ပုံတင်အမှတ်	-	၇/ကတတ(နိုင်)၀၀၀၁၇၃
၃	အသက်(မွေးသက္ကရာဇ်)	-	၁၅.၉.၁၉၉၉
၄	ပညာအရည်အချင်း	-	၁၀ တန်း
၅	အလုပ်အကိုင်	-	ဝန်ထမ်း
၆	နေရပ်/ဖုန်း	-	အမှတ်(၁၀၅) ချယ်ရီလမ်း၊ စက်မှုဇုန်(၁)၊ ရွှေပြည်သာမြို့နယ်
၇	စီမံကိန်းအပေါ် သဘောထားအမြင်	-	စီမံကိန်းသည်အဆင်ပြေကောင်းမွန်ပါသည်။
၈	စီမံကိန်းနှင့်ပတ်သတ်၍ အကြံပြုချက်	-	
၉	လက်မှတ်	-	(signature)

6.5.4 Consultation Outcomes

- Actively involved in CSR activities such as religious and cultural activities, health and sports, natural disaster recovery funding, fund for anti-narcotic drugs, fund for road extension, fund sharing in waste collecting vehicle, fund for local community, fund for development and environmental conservation management committee and fund for education.
- Local people satisfied the operation of SACL
- Manpower local personnel manpower for the propose project increased as per time schedule
- Regular meeting with zone management committee, head of local authority is ongoing process

6.5.4.1 Recommendation

There are a lot of recommendations from local community, relevant authority and department about the proposed project. According to results of meeting, it has been found that most of local community accept and welcome this proposed project. The relevant department recommended that the proposed project can support domestic manufacturing and develop the job opportunities for local people.

6.5.4.2 Key Conflicts/Issues

There are no conflicts/issues about the proposed project. During the public consultation meeting, any conflicts/issues was not found between the local community, relevant government department and representative of SACL. Local community and relevant government department suggested about the proposed project and commented the necessary plan to be followed and undertaken by the proposed project (i.e., to follow the relevant laws, rules and guidelines, to take health care for employees and, to implement CSR, etc.,).

6.6 Results of Consultation

There is no objection from the authorities of host country in general as well as no complaint received from staff and local community regarding the current plastic injection and molding factory operation while study team consulting during assessment period. Providing necessary skill factory training as of voluntary nomination system for the eligible staff to develop local staff is built in as ongoing process throughout project period.

These issues raised during public consultation, together with the findings of the baseline data gathering, have been considered when compiling the EMP. Requests for community development, corporate social responsibility (CSR) programs and local job creation were also raised. MONREC provided details on the regulatory submission and approvals process. Relevant Industrial Zone Committee highlighted the proposed project to apply business by following complete project description and by using proper methods/system; which minimizes possible impacts; environment, social, & health; and to have proper fire protection system whilst conserving the environment and suggested to reserve 2% of annual net profit from the proposed project for CSR.

Project proponent will continue the implementation of Environmental Conservation activities, mutual relationship with neighboring factory and local people will be established, commerce complaints and grievances mechanism.

6.7 Complaints and Grievances Mechanism

Given the social and environmental setting of the project is anticipated that, from time to time, employees, contractors, government agencies, Non-Government Organizations, and the general public (including the media) will request information on the project's environmental performance and management.

The current procedure for handling external and internal queries on the project in general is as follows:

- If the communication is from the media, it is directed to the Managing Director.
- If the communication is from another source, it is referred to the Director.

In future, internal environmental queries will be referred to the SACL Factory Manager or Environmental Officer, while external queries will be referred to the Plastic Injection and Milding Factory Manager.

Plastic Injection Molding Factory Manager / Environment Officer will have to retain complaints/communications register and record progress of complaint (refer to document control section).

6.8 Information Disclosure

As per Myanmar regulations, this prepared EMP Report will be made available for public comment. The full report will be made available to the public in English and a non-technical summary will be made available in Myanmar. The report will be disclosed to stakeholders, at proposed project factory and at SACL office in Yangon.

Environmental conservation activities and CSR activities Notice Board will have similar display erected at SACL Factory. There is merit in expanding the scope of the Notice Board displays to include data generated through the project period on the environmental performance and CSR activities. This will have the effect of increasing staff awareness, interest and involvement in the environmental conservation & CSR program.

Approved report of SACL Project (summary) will display at SACL's factory while full report can be found at Head Office. SACL and ECD will include EMP info in their website respectively. Softcopy of EMP report and information of the proposed project will be available in SACL and ECD website.

The Proposed Project EIA will be submitted to ECD by SACL and the softcopy of EMP Report will be displayed at SACL's Notice Board of Head office and available website for the disclosure of information.

6.9 CSR Programs

Sweet Angel Company Limited's corporate social responsibility (CSR) activities based on the conviction that all business activities must take CSR into consideration. SACL is vigilant in their enforcement of corporate ethics and compliance and constantly work to improve educational programs and strengthen our internal control system. At the same time, SACL pursue initiatives related to quality management, environmental preservation, philanthropy and improved communication with all stakeholders.

The Proposed Project CSR program has been outlined as per below in sponsoring educational sector, healthcare of local community as well as staff and its family by arranging clinic & medical doctor, providing necessary equipment & training which relating to SACL's Office, and factory throughout operational period without fail to promote CSR.

SACL is planning budget for the Proposed Project CSR program to spend 2 % of annual net profit for the following sectors at the factory and it's surrounded area as the Corporate Social Responsibility program.

Education	20%
Health	20%
Social	20%
Natural Disaster	20%
Local Community	20%

SACL will administer in implementation of proposed project CSR program activities in collaboration with local authority

7.0 ENVIRONMENTAL MANAGEMENT PLAN

The environmental study has been carried out for the proposed project on the existing situation of proposed area as well as possible impact from all 3 phases (development/upgrading, operation, and abandonment) of Plastic Injection Molding Factory in proposed area.

The environmental management plan EMP for the proposed project has been prepared which related to environmental baseline data and calculated possible environmental impact from daily operational of Plastic Injection Molding Factory.

7.1 Project Component's Environmental and Social Policies and Commitments

7.1.1 Leadership and Commitment

The following personnel have been identified as key to the EMP:

- Managing Director – Responsible for environmental performance of SACL
- Director –Responsible for effective implementation of the EMP across all operating units
- FACTORY Manager – Management Champion for EMP
- Health, Safety, & Environmental (HSE) Coordinator – EMP Champion, to be the key person involved in development and implementation of EMP

7.1.2 Objective and Policy of EMP

The following policy is presented as a Draft, and is subject to review and confirmation by SACL.

Sweet Angel Co., Ltd. commits to an objective of environmental excellence on the basis that this approach is:

- Essential to efficient business performance;
- recognizes the company's role and responsibilities in the broader community; and
- acknowledges its environmental & corporate social responsibility commitments

Specific elements of SACL's Environmental Policy are described below:

- Demonstrate clear commitment and leadership by management through policy, communication, participation, and commitment of resources with the objectives of achieving:
    - Continual environmental improvement, as measured against regularly reviewed environmental performance objectives, and
    - Adopting an operating philosophy based on pollution prevention;
- Meet or exceed all relevant regulatory and legislative requirements, and where these laws do not exist, apply responsible standards;
- Define and communicate the environmental responsibilities of SACL staff as part of the employment induction program with the objectives of:
    - Informing all staff of the existence and importance of the company's Environmental Policy,
- Heightening employee awareness of environmental issues at all levels within the organization, and
- Conduct ongoing awareness and technical training during the course of employment according to the individual's position within the company;
- Work with government and non-government groups, and the community at large, via research and other voluntary initiatives, to further understand the environmental effects of the operation, as well as support regional and national environmental initiatives where appropriate;
- Promote environmental awareness with customers, suppliers, contractors and partners, evaluate their performance and include the use of environmental criteria when conducting business with them; and

- Maintain a system for managing SACL's environmental commitments and responsibilities, ensuring regular performance review by Senior Management, annual documentation of the results of the review, and revision as appropriate.

The Environmental Policy should be signed by Managing Director of SACL, displayed in a prominent position at the worksite (i.e., SACL FACTORY) in English and Myanmar, and made available to the public.

7.1.3 Environmental and Social Management System

SACL Environmental and Social Management System development in progress and final EMS (by SACL) will be based on prepared Environmental Management Plan which complies with Myanmar Laws & Regulations, and Procedures & Standing Instructions.

7.1.4 Environmental and Social Procedures and Guidelines

SACL complies with Myanmar Laws & Regulations, and Procedures & Standing Instructions. MONREC (former MOECAF) is instructed to follow the existing Environmental Impact Assessment Guidelines (2014 by MOECAF), Environmental Impact Assessment Procedures (29, December 2015 Notification by MOECAF) as of latest Myanmar Environmental and Social Procedures and Guidelines. There will have other procedures and guidelines in terms of interest in relevant area such as social and cultural, labor, regional, industrial, etc.

7.1.5 Environmental and Social Commitments

SACL will commit environmental and social as mentioned in the Environmental and Social Policy. There will be separate budget allotted for the implementation in environmental management plan of SACL throughout project period. Initial Environmental budget is estimated 3000 USD/year and budget allotment will be reviewed yearly basis to suit with requirements.

In addition, SACL has undertaken to spend 2% of annual net profit in CSR program. The proposed project area is placing within Industrial Zone, Yangon Region and can be considered as partially developed based on current living standard status. SACL plans

to cooperate with local community as part of CSR programs to be supported by SACL is as below:

- Providing in Education Sector by funding in school library, stationary, exercise book, etc., for the students from local community
- Providing in health care service sector by funding in clinic, doctor & medicine for the patients from local community
-

7.2 Environmental Management and Monitoring Plan

This section was summarized for the environmental management plan for the proposed project and implementation. Environmental management and monitoring plan has been organized with four main parts: -

- **Impact Assessment and Mitigation Measure** - prepare Environmental Management Plan for the proposed project by environmental experts;
- **Environmental Management Plan** – perform environmental conservation activities to minimize impacts which may arise from the proposed project operation activities by the operator;
- **Auditing & Inspection EMP Performance** – audit & inspect EMP performance to ensure EMP performance of SACL is acceptable which complying with Myanmar laws & regulations, and procedures & standing instructions by relevant authority; and
- **Reviewing and updating of EMP** – to update EMP periodically for the applicable of EMP to suit with changes in operation activity or changes in Myanmar laws & regulations, and procedures & instructions

In the impact assessment, a number of potentially significant impacts were identified. For each of these project activities, mitigation measures were defined to prevent and/or reduce the likelihood or magnitude of impacts and/or to limit the extent of an impact if one does occur. The proposed mitigation measures take into account applicable guidelines, industry practices, expert judgment, design techniques, and operational control.

In addition, environmental monitoring measures were designed to monitor the environment and project activities. The purpose of these monitoring measures is: to evaluate the effectiveness of the mitigation measures that will be put in place; to assess compliance with Myanmar legislation, guidelines and standards; and to compare environmental conditions after implementation of the project to environmental baseline conditions to document possible change and/or impact. Detailed summarized planning and implementation of environmental management plan based on outcome from mitigation measure for the proposed project has been presented in previous Section – 5.

7.2.1 Planning

Environmental Monitoring Plans, which detail tasks to be undertaken and monitoring to be conducted as part of achieving objectives and targets, with frequency and responsibility, has been prepared and any further improvement or modification will be generated by the Factory Manager in line with daily operation.

Monitoring tasks could, in the future, be incorporated into the Maintenance Management System, which puts together daily work instructions, and was planned for implementation.

A Waste Management Plan has been partially developed by SACL. This should incorporate auditing and waste tracking procedures, which have been developed as part of the EMP.

The only Emergency Preparedness and Response Plan available for review were: the Emergency Response Manual, which had little relevance to operations, and the Oil Spill Contingency Plan, which referred to environmental measures. The level of implementation of these plans needs to be assessed.
Procedures developed are discussed in more detail in Section 7.6.3.

7.2.2 Objectives

The principal objective of the EMP is to develop an effective management tool that will ensure that the diverse range of management and monitoring tasks and activities

originally defined in the Environmental Management Plan can be systematically and efficiently performed. The EMP will allow environmental performance trends to be monitored and problem areas identified. This will assist SACL to adopt a pollution prevention approach to environmental management, thereby potentially avoiding environmental damage, costly remedial action, and adverse public reaction.

The outcome will:

- Assure conformance with the Environmental Policy and specifically the dual objectives of pollution protection and continual environmental improvement;
- Demonstrate such conformance to others;
- Ensure the efficient and effective use of resources;
- Seek certification/registration of its EMP by an external organization, should this be deemed desirable.

Development and implementation of an EMP is an evolving process. The first stage, as described in this document, represents a formalization of the EMP initiated during the takeover and upgrading phase on the existing facility and location from the land owner which preferred to be used for project, and modified to take account of the fact that the project is moving into a normal operations phase.

This stage of the EMP focuses on those activities that were initiated during the upgrading phase and those operational activities that can be managed. These can be summarized as:

- Hazardous and non-hazardous waste management;
- Effluent water treatment and discharge;
- Storage and handling of fuels and chemicals;
- Modification and Maintenance of the facility;
- Monitoring of air emissions;
- Environmental noise monitoring;

Subsequent stages will provide additional detail and allow greater external scrutiny and public disclosure.

The structure and hence key elements of this document conform to the ISO 14001. The EMP described herein therefore forms the base upon which an internationally certifiable EMP can be developed.

The following table summarizes the areas where additional detail and resources will need to be applied to achieve this international status, should this be desired. It is understood that SACL's initial goal is to reach the Corporate-level standard within 12 months, at which time it will evaluate the merits of achieving ISO 14001 compliance.

Table 7.1: Comparative Assessment: SACL EMP and ISO 14001

Element of the Environmental Management System	**Specific requirements under ISO 14001**	**SACLEMP (Jun 2021)**
Policy	Appropriate commitment to continual improvement and pollution prevention Commitment to compliance with legislation Provides framework for objectives and targets Documented and communicated to all employees Publicly available	Yes* Yes* Yes* Yes* Yes*
Planning		
-Environmental Aspects	Maintain procedures for identifying environmental aspects of activities Ensure aspects related to significant impacts are considered in setting environmental objectives	Yes Yes
-Legal and Other Requirements	Maintain a procedure to identify applicable requirements	Yes
-Objectives and Targets	Document environmental objectives Review objectives and targets Must be consistent with Policy	Yes No Yes

	(local/corporate)	
-Environmental Management Programs	Establish and maintain programme for achieving objectives and targets, designating a) responsibilities, b) method and time frame	Yes
Implementation and Operation		
-Structure and Responsibility	Document and communicate roles and responsibilities Management to provide resources required for implementation of EMP Appoint specific representative(s) responsible for ensuring implementation, and reporting on performance	Yes Partial Yes
-Training awareness and competence	Identify training needs Ensure appropriate training received Make employees aware of environmental impacts, and their roles and responsibilities Ensure competency	Yes No Yes No
-Communication	System for internal communication on environmental issues System for external communication on environmental issues Consider and document whether to communicate environmental impacts to external parties	Yes Yes No
-Environmental Management System documentation	Maintain documentation of the core elements of the EMP, and related documents	Partial
-Document Control	Maintain procedures for document control to ensure that documents: a) can be located	No

	b) are periodically reviewed c) are readily available d) obsolete documents removed e) are dated, identifiable, and maintained for a specified period	
-Operational Control	Identify operations associated with significant environmental aspects Establish and maintain procedures for operations which could result in significant impact Stipulate operating criteria Establish procedures relating to the use of goods and services by SACL, which have associated significant environmental impacts, and communicate these procedures to suppliers	Yes Yes Yes No
-Emergency preparedness and response	Establish procedures to respond to accidents and emergencies Review and revise procedures Periodically test procedures	No No No
Checking and Corrective Action		
- Monitoring and measurement	Maintain monitoring procedures and record results Calibrate monitoring equipment and maintain records Establish documented procedure to evaluate compliance with environmental legislation	Yes No Yes
- Non-conformance and corrective and preventive action	Establish procedures for investigating non-conformance and undertaking corrective action Ensure corrective action is of the appropriate scale	Yes Subject to audit

	Implement and record changes required to the procedure	Yes
-Record	Maintain procedures for the identification, maintenance and storage of environmental records Establish and record retention times for environmental records	No No
-EMP audit	Establish a programme and procedures for EMP audits	Yes
Management Review	Conduct and document periodic EMP audits by top management Management to address the need for change to the EMP, based on the findings of the audit	No No

**A draft Environmental Policy has been prepared as part of this EMP but will require endorsement by SACL Management.*

7.2.3 Document Control

The guiding principles for document control are as follows:

- They can be located;
- They are periodically reviewed, revised as necessary and approved for adequacy by authorized personnel;
- The current versions of all relevant documents are available at all locations where operations essential to the effective functioning of the EMS are performed;
- Obsolete documents are promptly removed from all points of issue and points of use, or otherwise assured against unintended use; and
- Any obsolete document retained for legal and/or knowledge preservation purposes are suitably identified.

Official documents forming part of the EMP, together with their storage location and the person responsible for their maintenance and upkeep, are summarized in Below Table.

Table 7.2: Document and Data Control

DOCUMENT	MAINTENANCE RESPONSIBITY & PRINCIPAL STORAGE LOCATION	DISTRIBUTION
EMP	Managing Director	Director Manager HSE Coordinator
Individual Roles & Responsibilities	Manager	All individuals with responsibilities for providing input into the EMP
Monthly Monitoring Plan	Maintenance Engineer/Technician	Manager Assistant Manager
Data Record	Maintenance Engineer/Technician	Manager
Corrective Action Record	Maintenance Engineer/Technician	Manager
Environmental Data File	Maintenance Engineer/Technician	N/A
Waste Disposal Inventory	Maintenance Engineer/Technician	Manager Assistant Manager
Waste Disposal Manifest	YCDC (Yangon) Materials Logistics Controller	Maintenance Engineer
Environmental Site Audit	Manager	Managing Director Director(s) Assistant Manager Maintenance Engineer
EMP Audit	Managing Director	Director(s) Manager
Complaints Register	Maintenance Engineer / Assistant Manager	Managing Director Manager
Incidents Report	Maintenance Engineer / Assistant Manager	Managing Director Manager

All documents will be dated (with dates of revisions), referenced by the descriptors outlined in the above table, and maintained as hard copy in a ring-backed file as a minimum (except the Photographic Database) and as an electronic copy as appropriate. All environmental documents are to keep according to respective retention period defined by the authority.

7.2.4 Environmental Records

Environmental Data Records are listed below in below Table.

Table 7.3: List of Environmental Data Record for the proposed project

Activity	Monitoring	Data Record Required
SACL		
1. Noisy Operations	1. Quarterly monitoring at the nearest residences to the Site. Initially, monitoring will involve observations only, to determine if noise is audible at the nearest residences at day and night time. Monitoring should be conducted during operation. If noise is audible, more detailed monitoring may be required	The level of audible noise from the operations at the nearest residences
2. Air emission	2. Air quality monitoring from established site	The air emission from the operation at established site
3. Usage of domestic water	3.(a) Water quality monitoring 3.(b) Domestic water consumption quantity monitoring	The quality & quantity of domestic water usage from established water sources
4. Discharge of domestic wastewater	4. Weekly checking of the drain way & septic tank	Condition of drain way & septic tank
5. Disposal of	5A. Audit of waste storage and	Number of non-compliances

general solid waste and hazardous waste	disposal practices every 6 months 5B. Audit of hazardous waste tracking documentation every three months	with waste management plan identified during the audit
6. Operation of standby diesel generators for emergency power supply	6. Back-calculate estimated emissions, based on diesel usage, using E&P Guidelines, every year	Estimated emissions per year
7. Operation works activities	Maintain a photographic record of the length of the facility throughout the project period	Photos
8. Process fire	Keep a record of manmade fires in the proposed project area	Record
9. EMP Implementation	9.(a) Audit of Environmental Management Plan implementation by SACL Management (internal) 9.(b) Inspection on EMP implementation by relevant authority (external)	Number of non-compliances with environmental management plan identified during the audit

7.2.5 Public Consultation and Disclosure

7.2.5.1 External and Internal Communication

Given the social and environmental setting of the project is anticipated that, from time to time, employees, contractors, government agencies, Non-Government Organizations, and the general public (including the media) will request information on the project's environmental performance and management.

7.2.5.2 Complaints and Grievances Mechanism

The current procedure for handling external and internal queries on the project in general is as follows:

- If the communication is from the media, it is directed to the Managing Director.
- If the communication is from another source, it is referred to the Director.

In future, internal environmental queries will be referred to the Factory Site Manager or Environmental Officer, while external queries will be referred to the Factory Site Manager.

Factory Site Manager / Environment Officer will have to retain a complaints/communications register and record progress of complaint (refer to document control section).

7.2.5.3 Disclosure

There is a communications practice in place for disseminating environmental information on the project. This is as follows:

- Monthly Environmental Report – briefing on water & energy consumption record, and waste management record;
- SACL FACTORY News – newsletter every 3 months focusing on socio-economic and environmental information;
- Notice board displays at the SACL Factory.

The Factory Notice Board will have similar display erected at SACL. There is merit in expanding the scope of the Notice Board displays to include data generated through the EMP on the environmental performance. This will have the effect of increasing staff awareness, interest and involvement in the environmental program.

7.2.6 Environmental Conservation Plans (Subs-Plan)

7.2.6.1 Air Quality Monitoring and Management Plan

Air Quality Monitoring and Management Plan is to mitigate and control air-pollution. It is conducted to reduce at least of gases and particulate matter which cause air pollution by project operation

Purposes

The purpose is to implement the necessary measures and needed plans in order to reduce at least or not to emit the gases and particulate matter into the atmosphere which cause air pollution by project operation.

Legal Requirements

Plans for mitigation and controlling of Air-pollution will be conducted in accordance with existing laws, rules and regulations, procedures and instructions. Especially described in national environmental quality emission guidelines (NEQEG) to reduce under the guidelines described as below.

Implementation plan

Air quality measurement activities will be carried out and management actions required to remain within the air quality guidelines of the National Environmental Quality (Emissions) Guidelines mentioned above will be implemented.

Management measures

The following oversight body will be established to undertake management issues necessary to remain within the air quality guidelines of the Environmental Quality (Emissions) Guidelines.

No.	Position	Responsibility
1	General Manager	C.E.O
2	Project Manager	Secretary
3	Management Department Head	Member
4	Finance Department Head	Member
5	Engineering Department Head	Member

As a supervisory body, the responsibility is to fulfill the issues such as inspecting, monitoring, reporting requesting financing for environmental management issues.

Monitoring programs

Weekly visual inspection around the project for air pollution reduction and control; A monthly report will be made on the observed conditions. Air quality measurement will be measured about one time per year in open seasons. Nitrogen dioxide, Particulate matter PM_{10}, Particulate matter $PM_{2.5}$, Sulfur dioxide will be measured and the results will be submitted to the Environmental Conservation Department.

Funding Allocations and Responsibilities

About 15 lakhs will be spent each year to carry out air quality measurement activities. In order to avoid air quality pollution due to the fumes emitted from the machineries/equipment's used in the operation, the maintenance cost of the equipment/engines will be included in the operating budget.

The project will communicate with third parties to carry out annual air quality measurement activities. During the project, regular inspection issues and monthly report preparation will be carried out by the supervision team.

7.2.6.2 Noise and Vibration Management Plan

The noise and vibration management plan has been developed to minimize the negative impact of noise and vibration on humans and the environment as a result of project activities.

Purposes

The main purpose is to implement the necessary measures to minimize the effects of noise and vibration due to project activities.

Legal Requirements

In implementing the project, it will be carried out in accordance with the instructions, the existing law, rule procedure. In particular, the National Environmental Quality (Emissions) Guidelines will ensure that the following guidelines are met.

Implementation plan

In order to reduce noise and vibration, we will implement that operating machinery with a lot of noise and vibration only during the daytime when there is a lot of background noise, installation of noise control equipment, enclosing with a hedge, planting windbreaks, wearing protective equipment for those who work in connection

with noise and vibration and the necessary management measures to stay within the noise and vibration guidelines

Management measures

The following supervisory team will be formed to carry out the management issues required to remain within the environmental quality (emissions) guidelines.

No.	Position	Responsibility
1	General Manager	C.E.O
2	Project Manager	Secretary
3	Management Department Head	Member
4	Finance Department Head	Member
5	Engineering Department Head	Member

As a supervisory body, it is the responsibility to fulfill the issues such as inspecting, monitoring, reporting requesting financing for environmental management issues.

Monitoring programs

Weekly visual inspection around the project and monthly report will be made on the observed conditions. The noise measurement will be measured about one time in three months in the areas where the project will have the closest noise impact. The results will be submitted to the Environmental Protection Department.

Funding Allocations and Responsibilities

About 10 lakhs will be spent each year to carry out the activities of this project. In order to reduce the noise and vibration produced by the equipment used in the operation, the maintenance cost of the equipment/engines should be included in the operating budget.

Noise and vibration measurement activities will be carried out by ourselves and third-party organizations. During the project, regular inspection issues and monthly report preparation will be carried out by the supervision team.

7.2.6.3 Solid Waste Management Plan

It includes the type and quantity of waste generated, collection and disposal of waste, minimizing waste generation and monitoring of the waste minimization plan in the waste management plan

Purposes

It aims to improve reducing, reusing and recycling practices in order to be able to manage the various solid wastes produced from the implementation of the project and manage waste by types of them.

Legal Requirements

In implementing the solid waste controlling plan, it will be carried out according to the instructions, the existing law and the rule procedure.

Implementation plan

In the management of waste, reusing, repairing use/ using other methods, landfill with residual waste will be carried out.

Recycling

Used and remaining materials (product balance, rope balance, etc.) will be properly stored and reused in order to be used again in the future.

Repairing use/ using other methods

If there is no more use of used and remaining materials and used materials, etc., they will be properly stored and repaired so that they can be used again and again. (Using used oil and lubricants as necessary, using paper and cardboard in agriculture, etc.)

Residual waste

Waste residues can be found in the following situations:

Keeping old tyre, metal and unclean, toxic and infectious materials in an orderly manner so that they can be reused and disposed

- Keeping obsolete equipment, extra items, etc. in an orderly manner for future use and storing systematically for disposal.
- Use of leftovers for animal feed and agricultural purposes.

If the waste is stored, it will be checked and managed every month because the waste residue is bad in odor, poor eyesight, a risk of fire, impact on the environment due to the liquid from it, etc.,

Landfill

After solving the waste materials by the above methods, the remaining waste materials will be solved by landfilling.

Management practices

In order to carry out the necessary management issues, the following supervision group will be formed.

No.	Position	Responsibility
1	General Manager	C.E.O
2	Project Manager	Secretary
3	Management Department Head	Member
4	Finance Department Head	Member
5	Engineering Department Head	Member

As a supervisory body, it is the responsibility to fulfill the issues such as inspecting, monitoring, reporting requesting financing for environmental management issues.

Monitoring programs

As a project operator, we understand how to minimize the waste generated by the project and its risks. In order to monitor and control the type and quantity of waste produced by the project, a report book will be prepared and regular records will be kept.

The materials used in the project will be considered with the views of being environmental friendliness and minimal waste generation. Waste storage areas will be inspected weekly to ensure they are in good condition and clean. The waste management plan will be discussed and negotiated in regular quarterly meetings to update it as necessary

Funding Allocations and Responsibilities

An estimated separate budget of 5 lakhs per year will be spent for the solid waste control project. During the project, regular inspection issues and monthly report preparation will be carried out by the supervision team.

7.2.6.4 Waste Water Management Plan

This plan is drawn and carried out to prevent water pollution due to project activities.

Purposes

The purpose of the project is to implement necessary measures to prevent and minimize the flow of polluted waste water into the water body as a result of the project activities.

Legal requirements

In implementing this project, we will comply with the instructions, the existing law, rule procedure. Specifically, the effluent levels will be reduced below the guidelines for the following listed; general guidelines in the National Environmental Quality (Emissions) Guidelines.

In addition to the general guidelines and industry-specific guidelines, we will also comply the following guideline values for storm water discharges from all areas during the operation and construction phase of the project:

Implementation plan

Water quality measurement activities will be carried out by taking samples from the project's waste water collection and disposal sites. Management measures such as construction of waste filters and sedimentation tanks, maintenance and construction to ensure proper flow from drainage channels, management to minimize water consumption as much as possible, planting appropriate plants to conserve water resources will be carried out to remain the effluent level within water quality guidelines of the National Environmental Quality (Emission) Guidelines.

Management practices

The following supervisory team will be formed to carry out the management issues required to remain within the water quality guidelines of the Environmental Quality (Emission) Guidelines.

No.	Position	Responsibility
1	General Manager	C.E.O

2	Project Manager	Secretary
3	Management Department Head	Member
4	Finance Department Head	Member
5	Engineering Department Head	Member

As a supervisory body, it is the responsibility to fulfill the issues such as inspecting, monitoring, reporting requesting financing for environmental management issues.

Monitoring programs

Weekly visual inspection within the project environment and monthly reporting on the observed conditions will be carried out for reduction and control of water pollution. Waste water, Groundwater quality measurements will be measured once in every 3 months and Chemical oxygen demand, Oil and grease, pH, Temperature, Total coliform bacteria, Total nitrogen, Total phosphorus, Total suspended solids, Salinity will be measured and the results will be submitted to the Environmental Conservation Department.

Funding Allocations and Responsibilities

About 15 lakhs will be spent in each year for water quality measurement activities.

Annual water quality measurement activities will be carried out either with third parties or by the project operator himself. During the project operation, regular inspection issues and monthly report preparation will be carried out by the supervision team.

7.2.6.5 Occupational Health, Safety and Environmental Conservation Plan

This plan is designed to prevent accidents from occurring, health care of employees working in the project and safety in the workplace.

Purposes

Health and safety at work aims at the following points:

a) Project employees are healthy and work together to improve business success.

b) In order to reduce the risks that may occur in the workplace;

c) To ensure safety in the workplace by providing knowledge.

d) To sustain workplace safety for a long time.

Legal Requirements

In implementing the project, we will comply with the instructions, the existing law, and rule procedure. In particular, the Public Health Law and the Occupational Safety and Health Law will be followed.

Implementation plan

We are planning to provide the following health care services for project employees to be healthy.

a) Medical Check. Quantitative health examination of newly arrived employees by a doctor from Labor Employment and Social Security.

b) Emergency Care. Treatments that should be done first are carried out in the clinic; Delivered to the People's Hospital on time. Transferring to the public hospital for medical treatment.

c) Environmental Health. Water storage during the project; Distributing water through pipes to departments and residential areas for full use of water 24 hours a day; employee residences; Concrete drainage channels are made to prevent the waste water produced from the workplaces from flowing into the creek/stream/rivers. Arrangements have been made to allow the sewage to flow into the tank, and the drains are collectively cleaned once a month. As a sewage system, flush toilets are arranged for employees, and the sewage produced flows into septic tanks. The septic tank also has a sewage tank. water filter The water pumping tank has been built in stages, and it is planned that the surface water released from the septic tank can seep into the ground through the water pumping tank.

Management Practices

In order to carry out the necessary management issues, the following supervision group will be formed.

No.	Position	Responsibility
1	General Manager	C.E.O
2	Project Manager	Secretary
3	Management Department Head	Member
4	Finance Department Head	Member
5	Engineering Department Head	Member

As a supervisory body, it is the responsibility to fulfill the issues such as inspecting environmental management issues, monitoring, reporting and requesting financing.

For occupational health and safety, the supervision team must continuously study the dangerous situations in the workplace and establish policies to avoid danger. In addition, the employees will be able to create and build a happy and peaceful workplace by being careful and following each other.

Funding Allocations and Responsibilities

Approximately (5) lakhs will be spent annually to carry out the activities of the project. During the project, regular inspection issues and monthly report preparation will be carried out by the supervision team.

The plans and activities for the occupational health, safety and fire safety are described in Annexure 2.

7.2.6.6 Plans for safety of natural disaster and emergency respond

It is necessary to develop and implement this plan in order to prevent and minimize damage caused by unexpected natural disasters.

Purposes

Natural disasters caused by climate change in the world; this plan is designed in advance to prevent and minimize the loss of life and property due to human-caused disasters.

Legal requirements

In the implementation of the project, we will follow the instructions, the existing law, rule procedure, especially the Natural Disaster Management Law; we will comply with the Occupational Safety and Health Law.

Implementation plan

The following plans have been developed to prevent and minimize damage caused by unexpected disasters:

(a) Disaster Preparedness Plans

(b) Storm safety plan

(c) Fire safety plan

Management Practices

In order to carry out the necessary management issues, the following supervision group will be formed.

No.	Position	Responsibility
1	General Manager	C.E.O
2	Project Manager	Secretary
3	Management Department Head	Member
4	Finance Department Head	Member
5	Engineering Department Head	Member

As a supervisory body, it is the responsibility to fulfill the issues such as inspecting environmental management issues, monitoring, reporting and requesting financing.

Monitoring Plans

Emergency response plans including natural disaster safety plans, storm safety plans, fire safety plans, etc. for situations that may occur unexpectedly will be practiced once every (2) months so that employees can best respond to emergencies.

Funding Allocations and Responsibilities

An estimated 15 million (15) million separate funds will be spent per year to implement emergency response plans during operation phase and estimated budget 10 lakhs will be spent during abandonment phase. During the project, regular training activities and monthly reports will be prepared and submitted by the supervisory team.

7.3 Legal Requirements

The following Table summarizes legal requirements and international guidelines relevant to environmental performance for the facilities.

Table 7.4: Legal Requirements and International Guidelines

Activity	World Bank Group 1988/95/98 Environmental Guidelines for FACTORY	Project Objectives
Disposal of wastes	No specific requirements relevant to Project	Ensure no spillage or disposal of industrial waste into normal waste disposing site. To contact YCDC for industrial waste disposing. Hazardous Wastes cannot be exported without permission and extensive pre-notification.
Noise	Maximum increase of 3dB(A) above background noise levels, as measured at noise receptors, or conform to the following maximums: Daytime in residential areas: 55 dB(A) Night time in residential areas: 45	Maximum increase of 3dB(A) above background noise levels, as measured at noise receptors, or conform to the following maximums: Daytime in residential areas: 55 dB(A) Night time in residential areas: 45 dB(A)

	dB(A)	

Standards and Codes of Practice

The SACL Emergency Response Plan (especially for cause of fire) has been made available to makes reference to compliance with Myanmar government require the reporting of fire.

7.3.1 Guidelines

SACL undertake to commit Environmental Management Plan for the Plastic Injection and Molding Factory Project Operation complies with National Environmental Quality Emission Guideline out of enacted Myanmar Laws & Regulations, and Procedures & Standing Instructions, MONREC (former MOECAF). There will have other procedures and guidelines in terms of interest in relevant area such as FDA guidelines in plastic items production, social and cultural, labor, regional, industrial, etc.

The SACL Fire & Emergency Response Plan has been made available which compliance with Fire Fight Department require the reporting of fire.

7.4 Institutional Arrangements

The operational - level for the environmental management plan will be responsible for overall environmental management of the proposed project for Plastic Injection and Molding Factory. It will be headed by a Managing Director and consist of at least Fifteen person-team of marketing, operation, engineering, administrative & financial, and social/environmental.

There will be institutional framework set with categorized level to educate the person involved for the implementation of Project EMP, as described below:

Category 1: Customer / Visitor – Environmental Awareness
Category 2: - General Environmental Awareness
Category 3: Specific Environmental Awareness

Category 4: Specific Environmental Training

7.4.1 Project's Environmental Standards for Institutional Framework

Category 1: Customer/Visitor Environmental Awareness– general introduction to environmental issues, as part of site induction, for visitors who will be visiting at SACL facilities. This training is to be given via SACL induction video display prepared by SACL Team, as part of the general SACL induction.

ENVIRONMENT

The environment of the SACL is sensitive in term of its location. It is encouraging disposing waste into designated waste bin at site as it will prevent contamination to factory as well as its environment (i.e., soil/floor, waterways, etc.) and it may able to control possible fire from waste. Should you witness others improper waste disposing or see any fires, please report this to the Health, Safety, & Environment (HSE) Officer. Chewing beetle nuts is not allowed in the Factory facility as it may lead undesirable contamination to others as well as environment. Smoking inside SACL Perimeter is limited as it allowed at the designated smoking area only.

ENVIRONMENTAL INCIDENTS

Please report all incidents, including spills or leaks of fuels, oils or other chemicals, to the HSE officer.

Category 2: General Environmental Awareness: 1 hr session for SACL management and technical personnel who are not directly involved in operations. The awareness program will cover general environmental issues; typical impacts associated with daily operations, and describe the importance of the EMP in underpinning good environmental performance. Training will be given by the Training Officer.

Category 3: Specific Environmental Awareness: 2 hr session for site operational personnel. The course will cover descriptions of specific environmental impacts which can occur as a result of operations. Training will also describe the importance of the EMP in underpinning good environmental performance. Training will be given by the Training Officer.

Category 4: Specific Environmental Training – task based: This will involve a day session day one-on-one for HSE Officers and maintenance personnel with responsibility for monitoring and reporting. This will be conducted by the Training Officer.
Note: Safety and Emergency training is not included here, but an environmental aspect will be incorporated into these courses.

SACL currently has developing a register indicating who has attended which courses, and which procedures each person is familiar with, as a way of tracking development through the organization. Environmental training could be included on this register.

Below Table Summarized training needs for the proposed project EMP Implementation

Table 7.5: Training Matrix

Personnel	**Training Category required (see above) and specific focus of training**
SACL management and technical personnel	Category 2
All SACL staff personnel	Category 3
HSE Officer	Category 4 Noise Observation Water quality monitoring Air Quality Monitoring Rehabilitation / Housekeeping works Monitoring Recording fires
Maintenance personnel	Category 4 Waste Management
Visitors/Customer	Category 1

7.5 Responsibilities of SACL in the Implementation of EMP for Proposed Project

Capacity Building for EMP Implementation

The following personnel have been identified as key person to the Plastic Injection and Molding Factory EMP:

- Managing Director – Responsible for environmental performance of SACL
- Director (s) – Responsible for effective implementation of the SACL Factory EMP
- Factory Manager – Management Champion for SACL Factory EMP

Organization and personnel resources required to effectively implement the EMP is presented detail in below Table.

Table 7.6: Roles and Responsibilities

Position	Role	Responsibility	Specific Tasks
SACL Management			
Managing Director	Management Commitment	Promote commitment to EMP amongst all staff	Ensure EMP is on Management agenda and discussed where appropriate at weekly management meetings
Director	Business Unit responsibility for SACL EMP Check on a) performance of SACL EMP b) Environmental support requirements	Oversee implementation of EMP Internal EMP auditing Provide support to all personnel on technical environmental issues Maintain register of legal and other	Conduct EMP auditing every 6 months Update register of legal and other requirements every 6 months Ensure EMP is discussed at weekly information exchanges Ensure sufficient resources are available for the successful implementation of the EMP

Position	Role	Responsibility	Specific Tasks
		requirements, particularly changing requirements of Myanmar government Handle environmental complaints Provide input to contacts and logistics department on environmental aspects of purchasing decisions	Maintain a register of Environmental Complaints. Address environmental complaints
SACL Plastic Injection and Molding Factory Operation Manager (TBA)	Operational Management Commitment	Promote implementation of EMP among all staff	Ensure EMP is on agenda and discussed at regular Operations meetings
Training Officer (TBA)	Training Officer	Conduct environmental awareness training and specific environmental training	Conduct environmental awareness training at induction Conduct environmental training annually,
SACL Operations			
Operation	Site EMP	Ensure EMP is	Ensure Site EMP and

Position	Role	Responsibility	Specific Tasks
Manager (TBA)	coordinator	implemented by Factory personnel	environmental issues are discussed at regular Operations meetings Review environmental comments in weekly reports from the SACL Supervisor
Assistant Operation Manager (TBA)	Commitment to EMP	Promote implementation of EMP Environmental reporting Oversee waste management	Discussion of EMP and environmental issues at regular staff meetings Weekly review of environmental comments from Environment officer, and summarize in report to SACL Manager
Engineer Teams (TBA)	Monitoring and Reporting	Ensure monthly monitoring plan is completed Conduct environmental monitoring and reporting required as part of EMP: a) facility rehabilitation b) water quality c) noise d) check waste management practices	Complete monthly monitoring plan Monitoring / observation and recording of noise levels at the nearest residence, quarterly Visual inspection of drain ways weekly. Monitor along the length of the SACL facility for condition of the developed works – every month in the dry season, and every 2 weeks in the wet season, or following a storm. Maintain a photographic record of the facility of the SACL before and after the construction works. Measure and record quality in surface waters monthly.

Position	Role	Responsibility	Specific Tasks
			Keep a record of fires in the project area Check that record of waste being sent for disposal and review
Maintenance Personnel	Waste management	Record on dispose of waste	Record the nature and quantity of waste sent for proper disposal.

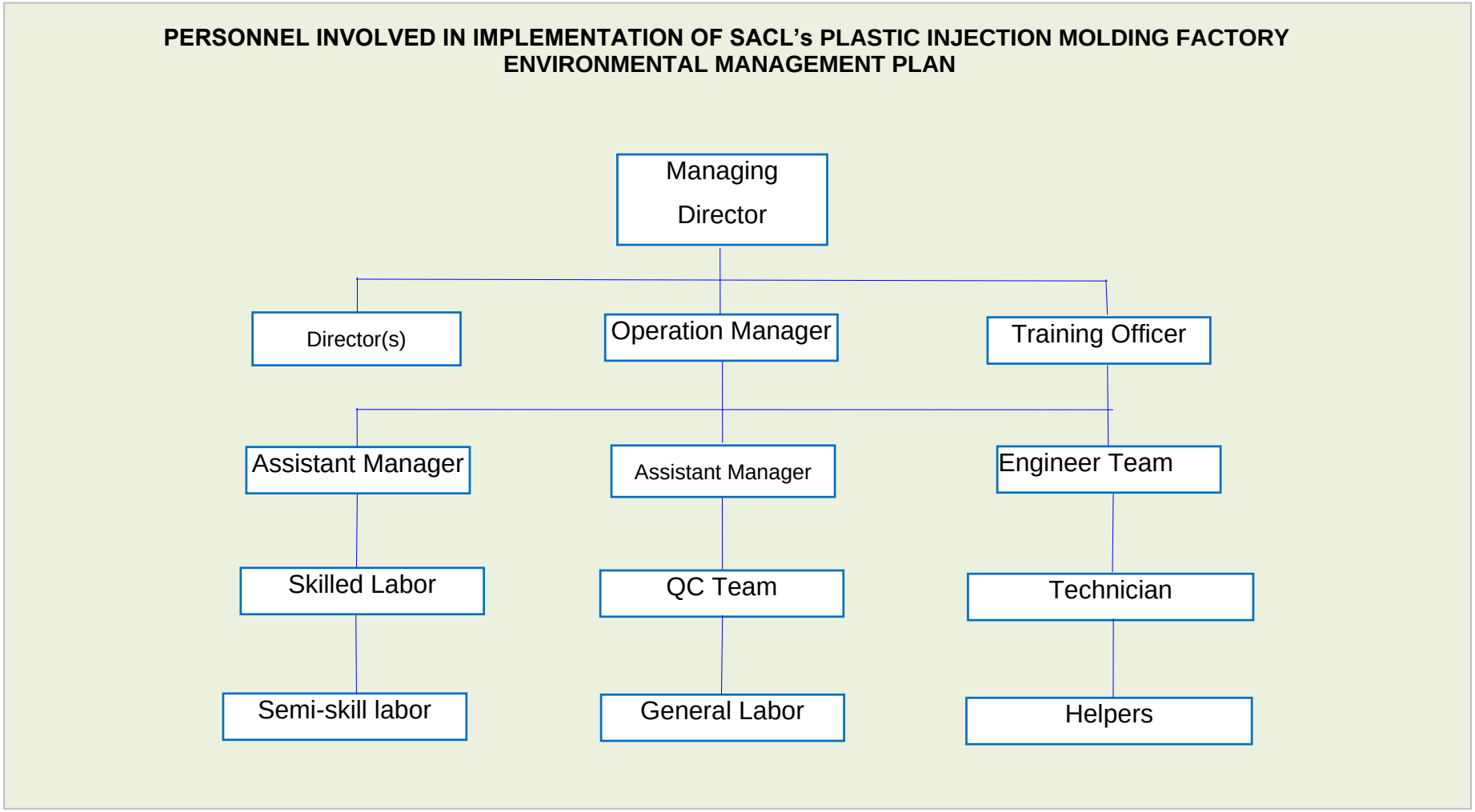

Figure 7.1: SACL EMP Implementation Team Organogram

7.5.1 EMP Implementation and Monitoring Procedures

In the development of the SACL EMP, the following SACL EMP Procedures were reviewed:

- Draft Safety Procedures – cover a range of environmental issues:
  - Water Source & Supply System
  - Power Source & Supply System
  - Fire Safety & Emergency Management Practice
  - Traffic Control & Security Practice
  - Public Recreational Area Allotment Practice
  - SACL Plastic Items Production Housekeeping Practice
  - Waste Management Practice (Waste Handling, transportation and disposal)
  - General Solid Waste Disposal Practice
  - Sewage Wastewater Treatment System
  - Safety and Administration Practice
  - Health and Hygiene Procedures
  - Safe Working Procedures
  - Tools & Equipment
- Draft Operational Procedures for the Proposed Project.

It was identified that procedures are required for:

- Various monitoring and analysis tasks (including Environmental and Waste Auditing) (developed as part of the EMP)
- Taking Corrective Action (developed as part of the EMP)
- EMP auditing (developed as part of the EMP)
- Schedule for reviewing EMP periodically and revising EMP as necessary by SACL Management Team and/or as per standing instruction by relevant authority (developed as part of the EMP)

7.5.1.1 EMP Implementation Program

The EMP Implementation Program developed as part of the Environmental Management Plan (EMP) are listed in below Table.

Table 7.7: SACL EMP Implementation Program

1	Noise Monitoring
2	Air quality Monitoring
3	Monitoring supply water quality, quantity, and storage system
4	Monitoring treated wastewater quality, quantity, and drain system
5	Monitoring Energy Consumption (Electricity Power, Fuel)
6	Monitoring General Solid Waste Generate, Storage & Disposing Practices
7	Monitoring number of Fire, Environmental & Social Accident, and Complaints
8	Digital Photographic Data Recording in Project Activities
9	Audit of supply water source & storage, wastewater treatment and disposing practices
10	Audit of energy source & fuel storage, and maintenance practices
11	Audit of waste storage and disposal practices
12	Audit of SACL housekeeping services and maintenance practices
13	Compilation of Project EMP Implementation Data for Reporting (Operation Team)
14	Project EMP Implementation Operation Team Meeting & Reporting (Management Team)
15	EMP Implementation Performance Audit (Management Team)
16	Management Team Review for EMP Implementation Performance Reporting (MONREC)
17	EMP Implementation Performance Audit (MONREC)
18	Update Environmental Management Plan based on outcome from SACL Management Review and Instruction from relevant Authority (MONREC)

7.6 Emergency Plan

Inevitable Natural Disaster (such as cyclone and earthquake) can be happened in the Yangon Region due to its geological condition and therefore preparedness of SACL disaster management plan in collaboration with local disaster management committee is encouraged.

Inevitable Fire and other accident can also be happened in the proposed project area and its surrounding area due to dense living style around project area. SACL has prepared to response for fire & emergency events in collaboration with Mingalardon Township Fire Service Department.

7.7 Implementation Program

7.7.1 EMP (Environmental Monitoring) Program

Project Proponent has to submit Environmental Monitoring Report to Ministry of Natural Resources and Environmental Conservation (MONREC) six monthly or as per instruction of MONREC. Environmental monitoring plan (EMP) for the proposed project operation activities has been programmed are summarized in below Table.

Table 7.8: SACL Factory EMP Program for Project Phases (Implementation Phase, Disclosure Phase)

Sr.	Activity	Frequency	Action By	Verified by	Annual Budget (USD)
1	Noise Monitoring Equipment: Noise Meter Monitoring Point: Near Production area	Six Monthly	Third party	SACL	1,000,000
2	Air quality Monitoring Equipment: Haz Scanner Parameter: PM10, PM 2.5, SO2, NO2, CO Monitoring Point: Inside the Factory	Six Monthly	Third party	SACL	1,500,000
3	Monitoring of water quality in the Project Area Equipment: Water Sample Collecting and sending to Laboratory Parameter: EQEG Guideline Parameter for Breweries and Distilleries (Article 2.3.1.8) Sample Collection Point: Tube Well Water and Waste Water Treatment Plant	Six Monthly	Third party	SACL	1,500,000
4	Monitoring domestic water consumption in the proposed project operation	Monthly	Internal	SACL	250,000
5	Fuel/Diesel Consumption in the proposed project operation	Monthly	Internal	SACL	250,000
6	Inspection of the domestic wastewater drains	Weekly	Internal	SACL	250,000
7	Monitoring General Waste Storage & Disposing Practices	Monthly	Internal	SACL	500,000
8	Digital Photographic Data Recording for Operations & Maintenance activities	Monthly	Internal	SACL	250,000

9	Monitoring Manmade Fire in the project area	Monthly	Internal	SACL	250,000
10	Audit of waste storage and disposal practices	Quarterly	Internal	SACL	250,000
11	Audit of hazardous waste tracking documentation	Quarterly	Internal	SACL	250,000
12	Environmental audit	6 Monthly	Internal & external	SACL, ECD	TBA
13	SACL Management Review on EMP implementation	Annually	Internal	SACL	250,000
14	Update Environmental Management Plan based on outcome from SACL Management Review and Instruction from relevant Authority	2 Yearly / (or) defined by Authority	Internal & external	Internal & external	TBA
15	Environmental Awareness Poster Disclosure	Monthly/Quarterly	Internal	SACL	500,000

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7.8 Implementation Budget and Schedule

7.8.1 Budget for Implementation of EMP

Separated EMP budget (estimated 3000 USD) reserves from SACL Proposed Project will be used in implementation of EMP monitoring and Management Plan activities without fail which complying with existing laws & regulation of Myanmar. There will be supplementary fund USD 2000 for environmental emergency issues. The separated and dedicated budget will be reserved by the operator (SACL EMP Team mentioned in above Figure 7.1) to implement effective environmental management plan EMP.

(a) Development of Environmental awareness induction, training program and launching
(b) Providing required laboratory use tools & equipment, personal protective equipment (PPE) & tools to run effective environmental management plan
(c) Enhancing proposed SACL Plastic Items Production waste management system by management supporting in necessary budget (apart from allowed budget), tools & equipment as and when required.
(d) Some flexible amount of environmental budget will be reserved for EMP audit team (both internal and external auditors) apart from allotted EMP budget.

7.8.2 Budget for Implementation of CSR

The Proposed Project CSR program has been outlined as per below in sponsoring educational sector, healthcare of local community as well as staff and its family by arranging clinic & medical doctor, providing necessary equipment & training which relating to SACL Plastic Items Production throughout operational period without fail to promote CSR.

(a) 50% of 2% annual net profit for the education section
(b) 50% of 2% annual net profit for the health care section

SACL will administer in implementation of proposed project CSR program activities.

8.0 Finding and Recommendation

As the appointed Environmental consultant for the plastic items manufacturing company, our role is to objectively evaluate the potential environmental impacts of the company's operations and provide unbiased recommendations, while considering the company's budget, the capacity of its engineering department, and environmental and social aspects. However, during the assessment process, we encountered certain challenges that limited data collection and field work.

The proposed SACL Plastic Injection Molding Factory project has potential in promotion of domestic mass product market from its operation and will support improvements in flow of local currency & foreign currency from Plastic Processing Sector. The benefits accrued due to the present project components are:

i. Manufacturing, distribution, and marketing standard quality plastic products for domestic customers;
ii. Utilization of certified machinery and enhancement of machinery efficiency in the business;
iii. Creating more opportunity for local human resources to work SACL Plastic Injection Molding Factory Operation.
iv. Enhancement of different level of skills of the International standard manpower by providing appropriate trainings to employee;
v. Created more opportunity for local human resources to work at proposed Project; local personnel manpower 12 nos. will be appointed;
vi. Direct income generation to the Union Government from operations service charges charged by relevant authorities has been accrued;
vii. Myanmar nationals working at proposed Project will be able to acquire International Standard technical know-how from the operation. This will contribute to the personal capability of the national workforce in the long term;
viii. From the standpoints of the Government of the Republic of the Union of Myanmar, personal income tax revenue will increase firstly and other tax revenue like income tax and commercial tax will also be generated;

ix. Implementation of EMP for the proposed project can enhance environmental awareness for the local community as well as other investors to comply properly;

x. 2% of net profit reserves from proposed Project yearly income will be used in CSR activities (such as funding in educational sector, healthcare of local community as well as staff and its family by arranging clinic & medical doctor, etc.) without fail which complying with existing laws & regulation of Myanmar.

The significance of the environmental impacts shall be more due to the normal operation of the SACL relate to the storage and disposal of wastes related impacts than any impacts associated with areas of rich environmental sensitivity. It is to be noted that the resultant potential impacts from these proposals can be offset through provision of proven mitigation measures by waste management plan in complying with standing instruction under Yangon City Development Committee, YCDC during operation and implementation. While no further detailed IEE & EIA shall be required for the proposed components, the addressable of the following key provisions have been included in the ToR for the environmental specialist of the NTMCL:

- Site Management Plan to address impacts during upgrading /construction;
- Waste Management Plan to address disposal of wastes generated during upgrading;
- Occupational Safety Plan to address occupational hazard during upgrading and operation;
- Waste Management & Disposal Plan to address handling and management during operation of the service apartment;

It is found that there is no activity identified having significant (HIGH and CRITICAL) adverse environmental impacts whilst one MEDIUM as of indirect environmental impact. They are either LOW or NEGLIGIBLE after taking into account specific engineering design features. However, in line with Myanmar Environmental Law & Regulation requirement and good practices, a number of actions have been prescribed to ensure continual environmental management improvement.

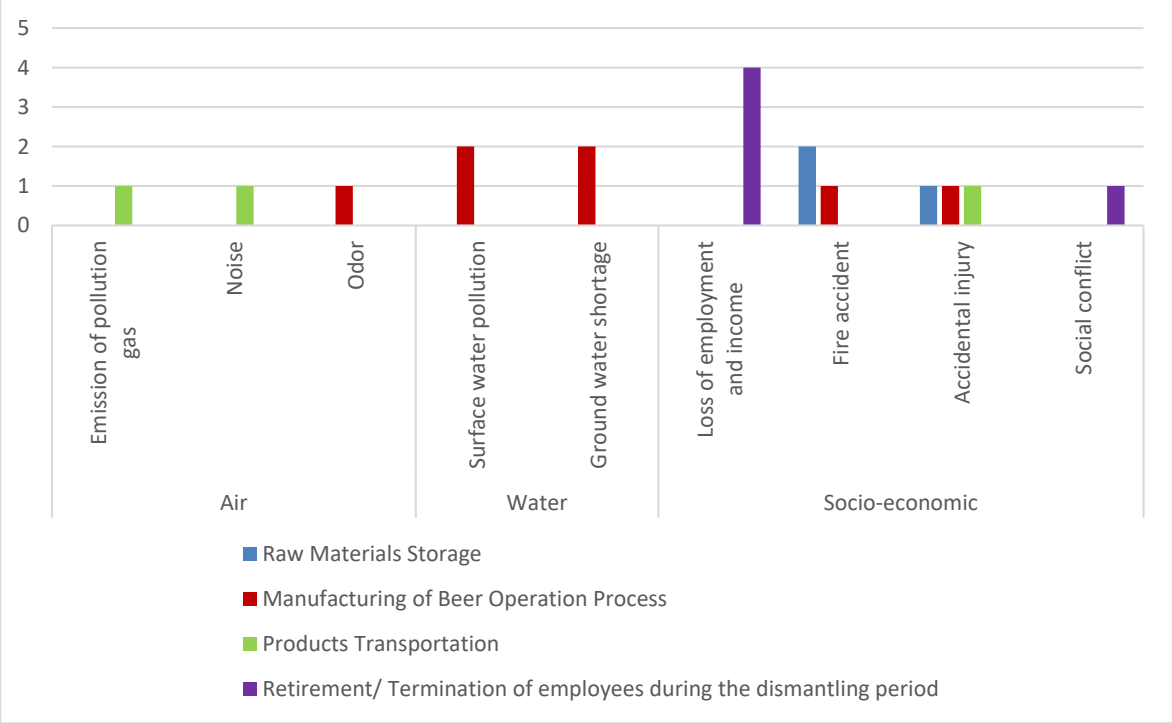
There will be nine types of impacts due to the implementation of project activities that may have potential negative impact of the project. In nine types of impacts, it is found that eight types are Negligible and Low impacts and one of them is medium impact.

It is recommended that the mitigation measures included in the Environmental Management Plan (EMP) report be followed to avoid these impacts and risks.

Therefore, the proposed project of, Sweet Angel Company Limited operate Plastic Injection Molding Factory project which is locating at No.104, Set Mu 7th street, Shwepyithar Township, Yangon Region Region, total area 1.377 acre is a project that should be implemented. It should be noted that there may be no need to continue the Environmental Impact Assessment.

9.0 Conclusion

In conclusion, several of the identified environmental impacts can be effectively resolved through prudent investments, collaboration with experts, and the implementation of responsible practices. While some challenges in data collection and fieldwork have been encountered, working closely with relevant stakeholders, regulatory authorities, and research institutions can help overcome these limitations and refine the company's environmental initiatives. It is found that there will be nine types of impacts due to the implementation of four types of project activities that may have potential negative impact of the project such as storage of raw materials, manufacturing of preform operation process, product transportation and dismantling period. In nine types of impacts, it is found that eight types are Negligible and Low impacts and one of them is Critical impact.



The proposed components should proceed through to design and implementation, subject to mitigation measures and monitoring programs identified in the Environmental Management Plan, which has been updated during detailed design stage, and based on above recommendations. It may be emphasized that, owing to: (i) scale of activity, (ii) location of the proposed project component, and (iii) 'no

environmental sensitivity' of the project, none of the components required to go through the process of IEE & EIA. It may be emphasized that the present EMP report, which identifies potential impacts and suggests appropriate mitigation measures, is sufficient enough to safeguard the environment. There are no significant adverse impacts, which are irreversible or may lead to considerable loss/destruction of environment, envisaged. Proven mitigation measures exist to minimize/mitigate the same. Hence, no further study such as an EIA is required.

As such, an Environmental study has been conducted, and no significant adverse impact has been envisaged, as mentioned above. To further mitigate any environmental impacts, an Environmental Management Plan (EMP) is included. As a third-party consultant, our role is to provide unbiased and actionable recommendations that harmonize the interests of the company, the government, and environmental protection. By adhering to these recommendations and considering the constraints and opportunities at hand, the plastic items manufacturing company can enhance its environmental performance, build stronger community relations, and position itself as a leader in sustainable practices within the industry. Embracing these measures will not only pave the way for environmental stewardship but also underscore the company's commitment to corporate social responsibility, benefiting both the company and the broader ecosystem in which it operates.

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