

**INITIAL ENVIRONMENTAL EXAMINATION
(IEE)**

FOR

MELODY GLOBAL COMPANY LIMITED

**MANUFACTURING OF FOOTWEARS AND
OUTDOOR SPORTS ACCESSORIES UNDER
THE CMP BASIS**

PROJECT PROPONENT



Melody Global Co., Ltd.

PLOT NO. 26/27/18, BAGO INDUSTRIAL ZONE, BAGO REGION, MYANMAR
PHONE NO. +95-933 162018 : +95-925 037 2568

**MELODY GLOBAL
COMPANY LIMITED**

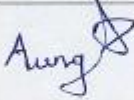


PREPARED BY



**E GUARD ENVIRINMENTAI
SERVICES**

2/2/2025

Report Review Form

Report Title: Initial Environmental Examination (IEE) Report For Melody Global Company Limited	
Report Version: Version 00	
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Summary: IEE Report This document presents Initial Environmental Examination (IEE) report as required for Melody Global Company Limited.	Approved by: 

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DISCLAIMER

This report has been prepared within the terms of references (TOR) adopted for Initial Environmental Examination Report for Melody Global Co., Ltd. and those of the contract with the client according to the prevailing active Laws, Rules, Regulations, and Procedures within the framework of Myanmar Environmental Impact Assessment Procedure 2015. We do not assume any responsibility or liability in regard with any matters beyond the scope of the TOR and the contract.

Data analysis, impact assessment, devising mitigation measures and report formulation were carried out based on the information/ plan/ processes provided by the project proponent, available secondary data and information, and onsite observation and measurement of E Guard's environmental study team in line with the relevant national and international guidelines and standards. While we do take effort to ensure that the information contained in this report is reliable and accurate, we disclaim no responsibility for errors and omissions which might occur despites of our reasonable skill and care.

Drawings, sketches, maps, and other illustrative figures used for demonstrative and/or descriptive purposes in this report are not to be considered as neither approved boundary nor accepted territory nor recognized properties extend of any kind. In case of dual or multiple meanings of the wordings, it is advisable to take the most relevant meaning within the context of the concerned areas discussed in this report.

The personal, organizational, and commercial data and information contained in this report were included solely upon the demand and requirements of concerned authority, and we have no intention of breaching the privacy or disclosing the trade secrets whatsoever.



E GUARD ENVIRONMENTAL SERVICES

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Commitment to follow and compliance with Environmental Conservation Law, Rules, Environmental Impact Assessment Procedure, National Environmental (Quality) Emission Guidelines, Standards, and Mitigation Measures Stated in the Initial Environmental Examination (IEE) Report

With Regard to the above matter,

We, E Guard Environmental Services Company Limited have prepared the Initial Environmental Examination (IEE) Report for Melody Global Company Limited which is located at Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar. Our company strongly commits that this IEE report has been prepared by following Environmental Conservation Law (2012), Environmental Conservation Rules (2014), Environmental Impact Assessment Procedure (2015), National Environmental Quality (Emission) Guidelines (2015), Myanmar Electricity Law (2014), the Myanmar Investment Law (2016 – Amended in 2019) and other relevant environmental standards through successful implementation of mitigation measures and monitoring plan stated in the Initial Environmental Examination (IEE) Report.

.....
Third Party

E Guard Environmental Services Co.,Ltd



www.facebook.com/EGuardmm/



Melody Global Co., Ltd.

PLOT NO. 26/27/28, BAGO INDUSTRIAL ZONE, BAGO REGION, MYANMAR
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Commitment of Melody Global Co., Ltd.

We refer to the captioned IEE report, which has been prepared by E Guard Environmental Services Co., Ltd. (Third Party Consultant) in compliance with EIA procedure (2015) and other related laws/rules. We believe, to the best of our knowledge at the time of writing, that;

- The report is accurate and complete
- The report has been prepared in strict compliance with all applicable laws, rules, regulations and procedures in force.

Melody Global Co., Ltd. will at all times comply fully with all commitments, obligations, mitigation measures, and plans in the EMP report, and also environmental conservation law, environmental conservation rules, environmental impact assessment procedure, national environmental quality (emission) guidelines and instructions to be issued from time to time, including business-related law, rules and procedures. If Melody Global Co., Ltd. fails to comply with the law and regulations, we promise to accept actions in accordance with the existing law and rules.

We acknowledge and understand that


Mr. Chu, Chien-Kang
Assistant of
Managing Director
Melody Global Co., Ltd.

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Lists of Abbreviation

1. BESB = Bago City Electricity Supply Board
2. BOD = Biochemical Oxygen Demand
3. COD = Chemical Oxygen Demand
4. CO₂ = Carbon Dioxide
5. CEMP = Construction Environmental Management Plan
6. CMP = Contract Manufacturing Process
7. CSR = Corporate Social Responsibility
8. dB (A) = Decibel Unit
9. EMP = Environmental Management Plan
10. EIA = Environmental Impact Assessment
11. ECD = Environmental Conservation Department
12. ECC = Environmental Compliance Certificate
13. EMoP = Environmental Monitoring Plan
14. GIIP = Good International Industry Practices
15. HSE = Health, Safety and Environment
16. IEE = Initial Environmental Examination
17. IFC = International Finance Corporation
18. Kt = Kilo Ton
19. kWh = Kilo Watt Hour
20. km = Kilo Meter
21. MIC = Myanmar Investment Commission
22. MOECAF = Ministry of Environmental Conservation and Forestry
23. MONREC = Ministry of Natural Resources and Environmental Conservation
24. MT = Metric Ton
25. NEQEGs = National Environmental Quality (Emission) Guidelines
26. NO₂ = Nitrogen Dioxide
27. OEMP = Operation Environmental Management Plan
28. OSHA = Occupational Safety and Health Administration
29. O₃ = Ozone
30. PM = Particulate Matter
31. PPE = Personal Protective Equipment
32. ppm = Part Per Million
33. Sq meter = Square meter
34. WHO = World Health Organization
35. % = Percentage
36. °C = Degree Celsius

အစီရင်ခံစာအကျဉ်းချုပ်

Melody Global Company Limited သည် ခန့်မှန်းခြေ အမေရိကန်ဒေါ်လာ ၈.၆ သန်း ရင်းနှီးမြှုပ်နှံမှုဖြင့် မတည်ကာ ၁၀၀% နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှုဖြင့် အကောင်အထည်ဖော် ဆောင်ရွက်မည် ဖြစ်ပါသည်။ စက်ရုံ အကျယ်အဝန်းမှာ ၅၆၃၆၀.၆၈၈ စတုဂံပေ (၁၃.၉၂ ဧက) ဖြစ်၍ မြေကွက်အမှတ် (၂၆၊ ၂၇၊ ၂၈) စက်မှုဇုန်ဧရိယာ၊ ပဲခူးတိုင်းဒေသကြီးတွင် စက်ရုံတည်ဆောက်ပြီး CMP စနစ်ဖြင့် footweares and outdoor sports products ထုတ်လုပ်ခြင်းလုပ်ငန်း လုပ်ဆောင်မည်ဖြစ်ပါသည်။ စီးပွားဖြစ် စတင်သည့် နေ့ရက်မှာ ၂၀၁၆ ခုနှစ် ဖေဖော်ဝါရီလ ၈ ရက်နေ့ဖြစ်ပါသည်။ ကနဦး ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း ဆိုင်ရာ အစီရင်ခံစာသည် Melody Global Company Limited ၏ CMP စနစ်ဖြင့် footweares and outdoor sports products ထုတ်လုပ်ခြင်းလုပ်ငန်းမှ ပတ်ဝန်းကျင်အပေါ် အဓိကထိခိုက်မှု များကို လေ့လာဆန်းစစ်ပြီး လျော့ချရေး အစီအစဉ်များ၊ ကာကွယ်ထိန်းသိမ်းရေး အစီအစဉ်များကို အဓိပ္ပာယ် သတ်မှတ်ထားခြင်း ဖြစ်ပါသည်။

ကနဦးပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာအတွက် စက်ရုံကွင်းဆင်း လေ့လာချိန်တွင် တည်ဆောက်ရေးလုပ်ငန်း (Construction phase) ပြီးစီးနေပြီ ဖြစ်ပါသည်။ စက်ရုံလည်ပတ်ရန်အတွက် မြေနေရာအား ငှားရမ်းပြီး ကနဦး နှစ် (၅၀)၊ ဆယ်နှစ်သက်တမ်းတိုး (၂)ကြိမ် စာချုပ်သက်တမ်းဖြင့် ငှားရမ်း အသုံးပြုမည်ဖြစ်ပါသည်။ စီမံကိန်းတည်ဆောက်မှုကို ၂၀၁၃ ခုနှစ်၊ အောက်တိုဘာလ (၁၅) ရက်နေ့တွင် စတင် ခဲ့ပြီး ၂၀၁၅ ခုနှစ်၊ ဒီဇင်ဘာလ (၂၂) ရက်နေ့တွင် တည်ဆောက်မှု ပြီးခဲ့ပြီးဖြစ်ပါသည်။ စီမံကိန်း တည်ဆောက်သည့် စုစုပေါင်းအချိန်ကာလမှာ ၂နှစ် ဖြစ်ပါသည်။

Melody Global Company Limited ၏ CMP စနစ်ဖြင့် footweares and outdoor sports products ထုတ်လုပ်ခြင်းလုပ်ငန်းလည်ပတ်ရာတွင် ခန့်မှန်းလုပ်သားအင်အား ၄၃၁ ဦး (ကျား ၁၆၈ ဦး + မ ၂၆၃ ဦး) ဖြင့် လုပ်ဆောင်မည်ဖြစ်ပါသည်။ စက်ရုံတွင် နိုင်ငံသား လုပ်သားအများစုကို အလုပ်ခန့်၍ လုပ်ဆောင်သွားမည် ဖြစ်ပါသည်။ ပညာရှင်နှင့် စက်ရုံလုပ်သားများ တွဲဖက်၍ လုပ်ဆောင်သွားမည်ဖြစ်ပါသည်။ ထုတ်လုပ်မှု လုပ်ငန်း အတွက် automatic စက်ပစ္စည်းများကို အသုံးပြုပြီး စက်လည်ပတ်ခြင်းကို ထိန်းညှိပေးခြင်းနှင့် အရည်အသွေး စစ်ဆေးခြင်းများတွင် လူစွမ်းအားကို အသုံးပြု၍ လုပ်ဆောင်မည်ဖြစ်ပါသည်။ စက်ရုံမှ နှစ်စဉ် ကုန်ထုတ်လုပ်မှု ခန့်မှန်းမှာ ပထမနှစ်အတွက် ဖိနပ်အမျိုးအစား (၆) မျိုး ၁၄၇၅၁၅၀ ရုံနှင့် အားကစားပစ္စည်းအမျိုးအစား (၁၅) မျိုး ၁၁၈၁၈၉၀ ခုဖြစ်ပါသည်။

အဆိုပြု စီမံကိန်းသည် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်မှ ၂၀၁၃ ခုနှစ်၊ စက်တင်ဘာလ ၉ ရက်နေ့တွင် (ခွင့်ပြုမိန့်အမှတ် - ၆၁၆/၂၀၁၃)ဖြင့် ရရှိပြီးဖြစ်ပါသည်။ Melody Global Company Limited ၏ CMP စနစ်ဖြင့် footweares and outdoor sports products ထုတ်လုပ်ခြင်းလုပ်ငန်းလည်ပတ်ရန်အတွက် မြန်မာနိုင်ငံ သယံဇာတနှင့် သဘာဝ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC) ၏ အတည်ပြုချက် ရယူရန်လိုအပ်ကြောင်း မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်မှ မှာကြားခဲ့ပါသည်။ မြန်မာနိုင်ငံပတ်ဝန်းကျင်

ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂) အရ ကနဦး ပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း Initial Environmental Examination (IEE) ပြုလုပ်ရန် လိုအပ်ကြောင်း ၂၀၁၅ ခုနှစ်၊ ဇန်နဝါရီလ (၂၉) ရက်နေ့ရက်စွဲပါ စာအမှတ်၊ ပဲခူး/ စဆရ (၇၀ (က)/၂၀၁၅) ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ပဲခူးတိုင်းဒေသကြီးမှ သဘောထားမှတ်ချက် ရရှိပြီး ဖြစ်ပါသည်။ ထို့ကြောင့် သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC)၊ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာန (ECD)၏ ထုတ်ပြန်ထားသော ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်း လုပ်ထုံးလုပ်နည်း (EIA Procedure) ၂၀၁၅ အရ Melody Global Company Limited သည် စက်ရုံအတွက် IEE အစီအရင်ခံစာကို ရေးဆွဲခဲ့ပါသည်။ အဆိုပါ IEE အစီအရင်ခံစာကို တတိယအဖွဲ့အစည်းဖြစ်သော E Guard Environmental Services Co., Ltd. မှ တာဝန်ယူရေးဆွဲခဲ့ပါသည်။

ရင်းနှီးမြှုပ်နှံသူ၏ အချက်အလက်

ရင်းနှီးမြှုပ်နှံသူ၏ အမည်	Mr. Chu, Sau-Lin
နိုင်ငံသား	တရုတ်နိုင်ငံသား
Company ID No.	107958614
မှတ်ပုံတင်သွင်းသည့် လိပ်စာ	No.25, Lane 148, Fuxing South Road, Taipei, Taiwan

အဆိုပြုစီမံကိန်းဆိုင်ရာ အချက်အလက်များ

အဆိုပြုထားသော စီမံကိန်း	CMP စနစ်ဖြင့် footweares and outdoor sports products ထုတ်လုပ်ခြင်းလုပ်ငန်း
ရင်းနှီးမြှုပ်နှံမှုပုံစံ	၁၀၀ % နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှု
အစုရှယ်ယာပုံစံ	ပုံမှန်အစုရှယ်ယာ
မြေနေရာအမျိုးအစား	စက်မှုဇုန်မြေ
စုစုပေါင်းမြေကွက်ဧရိယာ	၁၃.၉၂ ဧက (၅၆၃၆၀.၆၈၈ စတုဂံမီတာ)
ကိုဩဒိနိတ်	မြောက်လတ္တီကျု 17°15'3.19"N နှင့် အရှေ့လောင်ဂျီကျု 96°27'34.71"E
အဆောက်အဦအမျိုးအစား	တစ်ထပ်အဆောက်အဦ (၈) လုံး Factory – 32000 sq.meter Boiler – 800 sq.meter Office – 3600 sq.meter Warehouse – 10000 sq.meter Dormitory – 2500 sq.meter

မြေငှားကာလ	၅၀ နှစ်
တည်ဆောက်ရေးကာလ	၂ နှစ်
အဆိုပြုစီမံကိန်းတည်နေရာ	မြေကွက်အမှတ် (၂၆၊ ၂၇၊ ၂၈) စက်မှုဇုန်ဧရိယာ၊ ပဲခူးတိုင်းဒေသကြီး
တာဝန်ခံပုဂ္ဂိုလ်	ဦးအေးလင်းထွန်း (လက်ထောက်မန်နေဂျာ)
ဖုန်းနံပါတ်	၀၉-၄၃၁၇၃၄၇၈
Email	adm.melodyglobal@gmail.com

မူဝါဒ၊ ဥပဒေနှင့် မူဘောင်များ

Melody Global Company Limited သည် သဘာဝပတ်ဝန်းကျင် ကာကွယ်ရေးနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်အတွက် အခန်း (၂) တွင် ထည့်သွင်းဖော်ပြထားသည့် မူဝါဒ၊ ဥပဒေ၊ နည်းဥပဒေများ၊ လုပ်ထုံး လုပ်နည်းနှင့် လမ်းညွှန်ချက်များကို ကတိကဝတ်ပြုကာ လိုက်နာဆောင်ရွက်ပါမည်။

စီမံကိန်းဆိုင်ရာအချက်အလက်

Melody Global Company Limited စက်ရုံသည် မြောက်လတ္တီတွဒ် ၁၇°၁၅'၃.၁၉" နှင့် အရှေ့လောင်ဂျီတွဒ် ၉၆°၂၇'၃၄.၇၁"၊ မြေကွက်အမှတ် (၂၆၊ ၂၇၊ ၂၈) စက်မှုဇုန်ဧရိယာ၊ ပဲခူးတိုင်းဒေသကြီးတွင် တည်ရှိပြီး မြေဧရိယာစုစုပေါင်း ၁၃.၉၂ ဧက ဖြစ်ပါသည်။ လုပ်ငန်းဆောင်ရွက်ရာတွင် လိုအပ်သည့် စက်ပစ္စည်းနှင့် ကိရိယာ (၂၇၁) မျိုးကို တရုတ်နိုင်ငံမှ တင်သွင်း အသုံးပြုသွားမည်ဖြစ်ပြီး Rubber ၊ Wool ၊ Polyester ၊ zipper ၊ Brush ၊ Needle ၊ Hanger ၊ Tag ၊ Carton နှင့် Seal tape စသည့် ထုတ်လုပ်ရာတွင် လိုအပ်သည့် ကုန်ကြမ်းပစ္စည်းများကိုလည်း တရုတ်နိုင်ငံမှပင် တင်သွင်း အသုံးပြုမည် ဖြစ်ပါသည်။ ထုတ်လုပ်ရာတွင် အသုံးပြုမည့် ဓာတုကုန်ကြမ်းများကိုမူ တရုတ်နှင့် ထိုင်ဝမ်နိုင်ငံတို့မှ တင်သွင်းအသုံးပြုမည် ဖြစ်ပါသည်။ ကုန်ကြမ်းများကို ကုန်ကြမ်းသိုလှောင်ခန်းများတွင် စနစ်တကျ သိုလှောင်ထားရှိပါသည်။



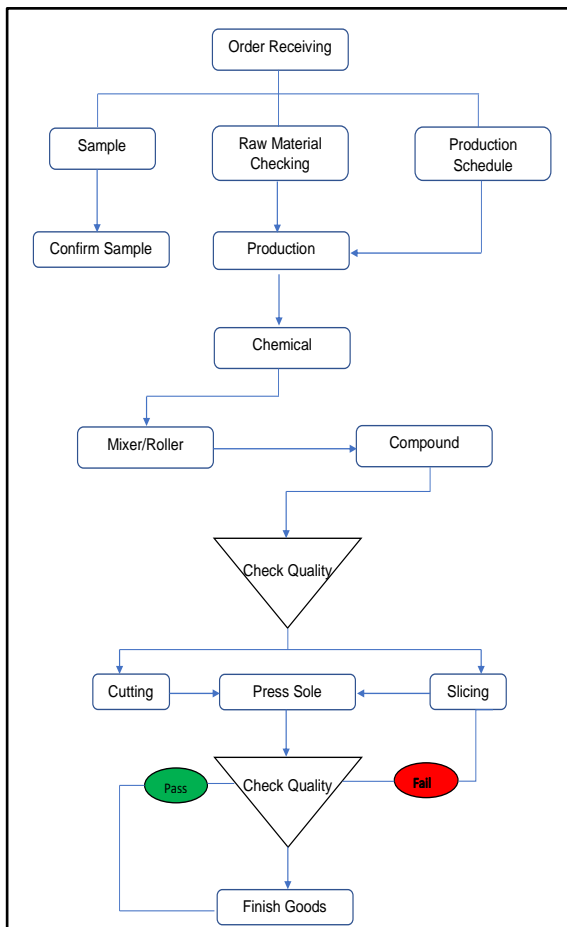


ကုန်ကြမ်းထားရှိမှု ဓာတ်ပုံ

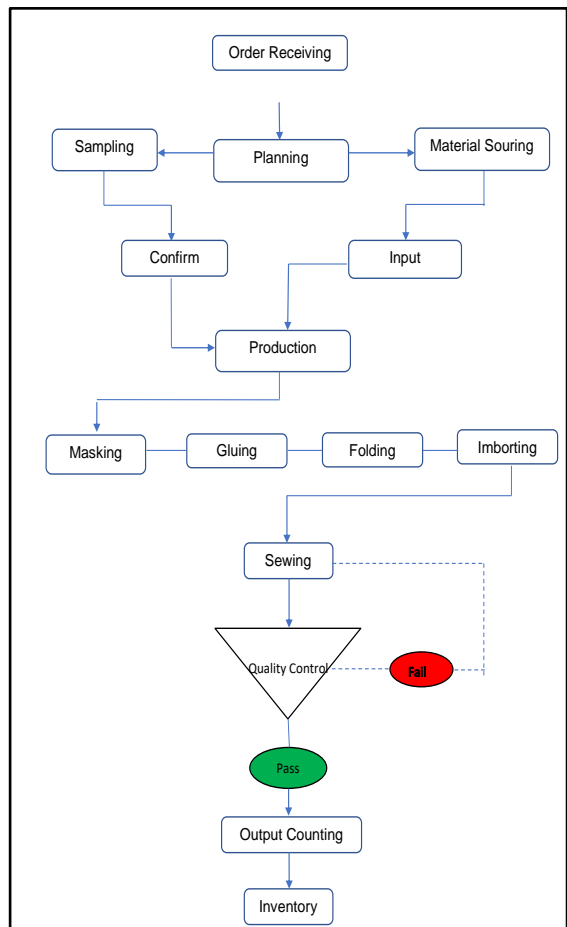
အဆိုပြုလုပ်ငန်းအတွက် တည်နေရာနှင့် စက်ရုံအတွင်းပါရှိသည့် အဆောင်များ၊ စားသောက်ဆောင်၊ စတို၊ ပြုပြင်ထိန်းသိမ်းရေးအခန်း အစရှိသည်တို့ကို သီးခြားဖော်ပြထားပါသည်။ ထို့ပြင် ထုတ်လုပ်မှု နည်းလမ်းများ၊ လိုအပ်သည့် ကုန်ကြမ်းများ၊ နှစ်စဉ်ထွက်ကုန်များနှင့် စက်ပစ္စည်းများအား ဖော်ပြထားပါသည်။ အဆိုပြုလုပ်ငန်းအတွက် လိုအပ်သည့် စွမ်းအင်နှင့် အသုံးပြုသည့်ပစ္စည်းများကိုပါ ထည့်သွင်း ဖော်ပြထားပါသည်။ ကျန်လုပ်ငန်းသုံးယာဉ်နှင့် ရုံးသုံးပစ္စည်းများကို ပြည်တွင်းမှ ဝယ်ယူအသုံးပြုပါသည်။ ကုန်ထုတ်လုပ်ခြင်းလုပ်ငန်းမှာ automatic machine နှင့် လူ့စွမ်းအားကို အသုံးပြုသော လုပ်ငန်းမျိုးဖြစ်ပါသည်။

ထုတ်ကုန်ထုတ်လုပ်မှုလုပ်ငန်းစဉ်တွင် ဆိုးလ်ပြားထုတ်လုပ်မှုလုပ်ငန်းစဉ်နှင့် စက်ချုပ်လုပ်ငန်းစဉ် ဟူ၍ အပိုင်း (၂) ပိုင်း ခွဲခြားထားပါသည်။ ဆိုးလ်ပြားထုတ်လုပ်ခြင်းလုပ်ငန်းစဉ်တွင် EVA (ethylene vinyl acetate resin) ကို ဓာတုပစ္စည်းနှင့် ရောစပ်ပြီး Roller Machine တွင် ထည့်လှိမ့်၍ ရာဘာအပြားရရှိအောင် ပြုလုပ်ပါသည်။ ရရှိလာသော ရာဘာပြားကို အရည်အသွေးစစ်ဆေး၍ ဖြတ်စက်တွင် ဖြတ်တောက်ပါသည်။ ထို့နောက် ဆိုးလ်ပြားပုံစံအတိုင်း ရရှိအောင် ဟိုက်ဒရောလစ်ဖိစက်ဖြင့် ဖိပါသည်။ ရရှိလာသော ဆိုးလ်ပြားများကို အစွန်းအစများကို ညီညာအောင် ဖြတ်တောက်ခြင်း၊ ညှိခြင်းများ ပြုလုပ်ခြင်းဖြင့် နောက်ဆုံးထုတ်ကုန်များကို ရရှိပါသည်။ ဆိုးလ်ပြားထုတ်လုပ်ပုံအဆင့်ဆင့်ကို အောက်ဖော်ပြပါ ပုံပြဇယားဖြင့် ဖော်ပြထားပါသည်။

စက်ချုပ်လုပ်ငန်းစဉ်တွင် ပထမဦးစွာ ခဲဆွဲ၍ အမှတ်အသားပြုလုပ်ရပါသည်။ ထိုအမှတ်အသား အတိုင်း ပိတ်စများကို ဖြတ်တောက်ခြင်း၊ ညှပ်ထုတ်ခြင်းများ ပြုလုပ်ပါသည်။ ထိုပိတ်စများကို ကော်ဖြင့် တွဲဆက်ခြင်းပြုလုပ်ပြီး ခေါက်ပါသည်။ ထို့နောက် တံဆိပ်ရိုက်ခြင်းပြုလုပ်ပါသည်။ တံဆိပ်ရိုက်ပြီး နောက်ဆုံးအဆင့်အနေနှင့် ပိတ်အပိုင်းအစ များကို တွဲဆက်ချုပ်လုပ်ခြင်းဖြင့် နောက်ဆုံးထုတ်ကုန်ရရှိပါသည်။ စက်ချုပ်လုပ်ငန်းစဉ်အဆင့်ဆင့်ကို အောက်ဖော်ပြပါ ပုံပြဇယားဖြင့် ဖော်ပြထားပါသည်။



ဆိုးလ်ပြားဌာန လုပ်ငန်းစဉ်အဆင့်ဆင့်



စက်ချုပ်ဌာန လုပ်ငန်းစဉ်အဆင့်ဆင့်

လုပ်ငန်းမှ ပထမနှစ်အတွက် ဖိနပ်အမျိုးအစား (၆) မျိုး ၁၄၇၅၅၀ ရုံနှင့် အားကစားပစ္စည်း အမျိုးအစား (၁၅) မျိုး ၁၁၈၁၉၀ ခုအထိ ထုတ်လုပ်သွားမည်ဖြစ်ပါသည်။ အစီရင်ခံစာအတွက် ကွင်းဆင်းလေ့လာချိန်တွင် နိုင်ငံခြားသား လုပ်သား (၁၀) ဦးအပါအဝင် လုပ်သားဦးရေ (၄၃၁) ဦးဖြင့် လုပ်ငန်း လည်ပတ်ဆောင်ရွက်နေသည်ကို တွေ့ရှိခဲ့ပါသည်။ စက်ရုံလည်ပတ်မှုကြောင့် သဘာဝပတ်ဝန်းကျင်အပေါ် ဆိုးဆိုးရွားရွား ထိခိုက်မှု မရှိကြောင်း လေ့လာတွေ့ရှိရပါသည်။



Snow Boots



Leather Shoes & Eva Sandal



Sports Shoes & Safety Shoes



Insole

Bounce Board & Tramp Ski

Solid color with sanded, brushed or laminated



EVA sheets with heat embossed and printing



EVA sheets with CNC grooving



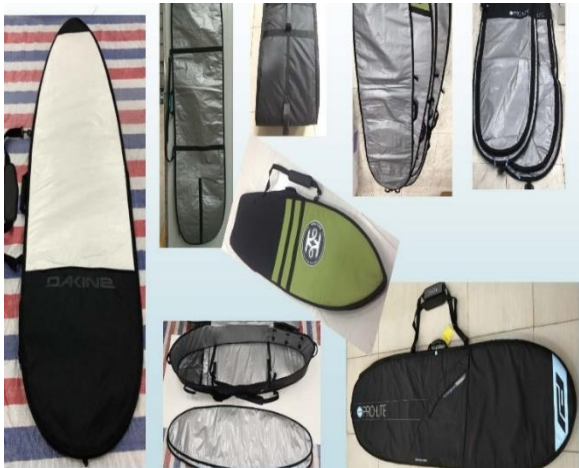
EVA sheets with swirl effect



Eva Sheets



Traction Pad **Leash**



Boardbags

ကုန်ချောပစ္စည်းဓာတ်ပုံများ

အနီးပတ်ဝန်းကျင် အခြေအနေ

စီမံကိန်းနှင့် စီမံကိန်းပတ်ဝန်းကျင်တွင် လေထုအရည်အသွေး၊ ဆူညံမှု၊ မြေအောက်ရေအရည်အသွေး၊ စွန့်ပစ်ရေ အရည်အသွေး၊ စိုထိုင်းဆနှင့် အပူချိန်စသည့် အခြေခံစစ်တမ်းတိုင်းတာမှုများကို ၂၀၂၃ ခုနှစ်၊ ဩဂုတ်လ (၁၆) ရက်နေ့တွင် ပြုလုပ်ခဲ့ပါသည်။ လူမှုစီးပွားအခြေအနေ၊ ရူပပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များ၊ ဇီဝပတ်ဝန်းကျင်ဆိုင်ရာ အချက် အလက်များ၊ ရာသီဥတုဆိုင်ရာ အချက်အလက်များ အစရှိသည်များကို ပဲခူးတိုင်းဒေသကြီးမှ တရားဝင် ပြဋ္ဌာန်းထားသော မြို့နယ်ဆိုင်ရာ အချက်အလက်များမှ ကိုးကားဖော်ပြထားပါသည်။

အမျိုးအစား	တိုင်းတာမှု
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လေအရည်အသွေး	(1) Sulfur dioxide (SO ₂), (2) Ozone (O ₃), (3) Nitrogen dioxide (NO ₂), (4) PM ₁₀ , (5) PM _{2.5}
ဆူညံမှု	ဆူညံသံ (LAeq)
မြေအောက်ရေအရည်အသွေး	pH, Turbidity, Total solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese and Zinc
စွန့်ပစ်ရေအရည်အသွေး	pH, Turbidity, Total solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese
အလင်းရောင်ပြင်းပြမှု	အလင်းရောင် Illumination (lux)

အဆိုပြုလုပ်ငန်း၏စစ်တမ်းကောက်ယူမှု

	အမျိုးအစား	ရလဒ်
ရာသီဥတုအခြေအနေ	အပူချိန်	၃၆.၃°C
	စိုထိုင်းဆ	၄၆.၄%
ဆူညံသံ	စက်ချုပ်ဌာန	၆၇.၀၃ dBA
	ဆိုးလ်ပြားဌာန	၇၁.၈၇ dBA
ထုတ်လုပ်မှုဧရိယာပြင်ပ လေထုအရည်အသွေး	PM ₁₀	၂၅.၄၅ µg/m ³
	PM _{2.5}	၂၃.၂၇ µg/m ³
	SO ₂	၁.၃၂ µg/m ³
	NO ₂	၂၉.၇၇ µg/m ³
	O ₃	၆.၀၈ µg/m ³
အလင်းရောင်တိုင်းတာမှု	ဖြတ်တောက်ခြင်းဧရိယာ	၁၀၂၂ Lux
	ကုန်ကြမ်းသိုလှောင်ထားရှိမှု ဧရိယာ	၃၁၂ Lux
	အရည်အသွေးစစ်ဆေးခြင်း ဧရိယာ	၁၀၇၈ Lux
	ချုပ်လုပ်ခြင်း ဧရိယာ	၆၃၁ Lux
	ကုန်ချောထုတ်ပိုးခြင်း ဧရိယာ	၇၈၄ Lux
မြေအောက်ရေအရည်အသွေး	pH	7.2 mg/L
	Turbidity	8 mg/L

	Total Solids	104 mg/L
	Hardness	27 mg/L
	Chloride	2.1 mg/L
	Free Cyanide	<0.01 mg/L
	Arsenic	0.005 mg/L
	Copper	0.02 mg/L
	Iron	0.3 mg/L
	Lead	ND mg/L
	Manganese	<0.2 mg/L
	Zinc	<0.02 mg/L
စွန့်ပစ်ရေအရည်အသွေး	pH	7.2
	Turbidity	14
	Total Solids	99 mg/L
	Hardness	1 mg/L
	Chloride	100 mg/L
	Free Cyanide	24 mg/L
	Arsenic	5 mg/L
	Copper	12 mg/L
	Iron	25 mg/L
	Lead	0.34 mg/L
	Manganese	<0.2 mg/L

လေအရည်အသွေးတိုင်းတာမှုရလဒ်များသည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ ထုတ်လွှတ်မှု လမ်းညွှန်ချက်များ အောက်တွင် ရှိကြောင်း တွေ့ရှိခဲ့ရပါသည်။ ဆူညံသံတိုင်းတာမှုမှာ စက်ချုပ်ဌာနတွင် သတ်မှတ်တန်ဖိုးအတွင်း တည်ရှိပြီး ဆိုးလ်ပြားဌာနရှိ Roller Machine အနီး တိုင်းတာမှုရလဒ်မှာ သတ်မှတ်ချက်ထက် အနည်းငယ်ကျော်လွန်နေသည်ကို တွေ့ရှိရပါသည်။ ဆိုးလ်ပြားဌာနတွင် စက်ကြီးများ အဓိကအသုံးပြု လည်ပတ်ခြင်း ဖြစ်သည့်အတွက် သတ်မှတ်ချက်ထက် အနည်းငယ် ကျော်လွန်

နေကြောင်း သုံးသပ်ရပါသည်။ ရေအရည်အသွေး တိုင်းတာမှုများ အနေဖြင့် သောက်သုံးရေ၊ မြေအောက်ရေနှင့် စွန့်ပစ်ရေတို့ကို တိုင်းတာခဲ့ရာ တိုင်းတာမှုရလဒ်များအနေဖြင့် သောက်သုံးရေနှင့် စွန့်ပစ်ရေတို့သည် သတ်မှတ်ချက်များအတွင်း တည်ရှိနေသည်ကို တွေ့ရှိရပြီး မြေအောက်ရေ အရည်အသွေး ရလဒ်တွင် ရေနောက်ကျိမှုပမာဏမှာ သတ်မှတ်ချက်ထက် ကျော်လွန်နေကြောင်း တွေ့ရှိရပါသည်။ ကွင်းဆင်း တိုင်းတာထားမှု အခြေအနေကို ပြန်လည်လေ့လာခြင်းနှင့် စက်ရုံမှ တာဝန်ရှိသူကို မေးမြန်းထားမှုအရ တိုင်းတာချိန်သည် မိုးရာသီဖြစ်၍ ကန်ရေညှိတက်နေခြင်းကြောင့်ဖြစ်ကြောင်း ယူဆရပါသည်။ သို့ဖြစ်၍ စက်ရုံအနေဖြင့် တိုင်းတာမှုရလဒ်ကို သိရှိပြီးနောက် ကန်ကို ဆေးကြော၍ ရေပြန်လည်လဲလှယ်ထားပြီး ဖြစ်ပါသည်။



ပတ်ဝန်းကျင်အရည်အသွေးတိုင်းတာသည့်နေရာများပြ မြေပုံ

ပတ်ဝန်းကျင်ထိခိုက်မှုနှင့် လျှော့ချထိန်းချုပ်ရေး အစီအစဉ်

အဆိုပြု စီမံကိန်း၏ အဓိကဖြစ်ပေါ်စေနိုင်သော ပတ်ဝန်းကျင်ထိခိုက်မှုကို အခြေခံစစ်တမ်း များပေါ် မူတည်၍ ယေဘုယျ နည်းလမ်းများအတိုင်း လျှော့ချမှုများ ပြုလုပ်သွားပါမည်။ ပတ်ဝန်းကျင် ထိခိုက်မှုကို လေ့လာဆန်းစစ်ရာတွင် စီမံကိန်းကာလအတွင်း ထိခိုက်မှု တစ်ခုချင်းစီ၏ ပမာဏ၊ ကြာမြင့်ချိန်၊ ကျယ်ပြန့်မှုနှင့် ဖြစ်နိုင်ချေတို့အား ဖော်ပြထားပါသည်။

အကဲဖြတ်ခြင်း	အတိုင်းအတာ				
	၁	၂	၃	၄	၅
ပမာဏ	မလုံလောက်သော	အနည်းငယ်နှင့် လုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော	အသင့်အတင့်နှင့် အနည်းငယ် လုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော	မြင့်မားနှင့် သိသာစွာ လုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော	အလွန်မြင့်မားနှင့် အမြဲတမ်းလုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော
အချိန်	၀-၁ နှစ်	၂-၅ နှစ်	၆-၁၅ နှစ်	လုပ်ငန်းလည်ပတ်စဉ် ကာလတလျှောက်	လုပ်ငန်းပိတ်သိမ်းခြင်း ကာလအထိ
ကျယ်ပြန့်မှု	လုပ်ငန်းခွင်အတွင်း	ဒေသအတွင်း	မြို့နယ်အတွင်း	နိုင်ငံအတွင်း	နိုင်ငံတကာအတွင်း
ဖြစ်နိုင်ချေ	လုံးဝမဖြစ်နိုင်သော	မဖြစ်နိုင်သော	ဖြစ်နိုင်သော	ဖြစ်နိုင်ချေမြင့်သော	အတိအကျဖြစ်နိုင်သော

$$\text{သတ်မှတ်ချက်} = (\text{ပမာဏ} + \text{အချိန်} + \text{ကျယ်ပြန့်မှု}) \times \text{ဖြစ်နိုင်ချေ}$$

ပတ်ဝန်းကျင်ထိခိုက်မှုကို အောက်ပါအတိုင်း ခွဲခြားနိုင်သည်။

သတ်မှတ်ချက်	ထိခိုက်မှုအဆင့်
<၁၅	အလွန်နိမ့်
၁၅ - ၂၉	နိမ့်
၃၀ - ၄၄	အလယ်အလတ်
၄၅ - ၅၉	မြင့်
၆၀	အလွန်မြင့်

စီမံကိန်းလုပ်ဆောင်ချက်များကြောင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အရင်းအမြစ်များ၊ စီးပွားရေးဆိုင်ရာ အရင်းအမြစ်များ၊ အမှိုက်စွန့်ပစ်မှုစသည့် သက်ရောက်မှုများ ဖြစ်ပေါ်လာနိုင်သည်။ စီမံကိန်းလုပ်ဆောင်ချက်ကြောင့် သက်ရောက်မှုများနှင့် လျော့ချရေးနည်းလမ်းများ အကျဉ်းချုပ်ကို အောက်ဖော်ပြပါဇယားတွင် ဖော်ပြထားပါသည်။

ထိခိုက်မှုများ	စီမံကိန်းလုပ်ဆောင်ချက်များ	သိသာထင်ရှားသည့် သက်ရောက်မှု					ထိခိုက်မှုအဆင့်	သက်ရောက်နိုင်မှု	လျှော့ချရေးနှင့် ထိန်းချုပ်မှု
		ပမာဏ	အချိန်	ကျယ်ပြန့်မှု	ဖြစ်နိုင်ချေ	သတ်မှတ်ချက်			
လုပ်ငန်းလည်ပတ်ချိန်ကာလ									
ပတ်ဝန်းကျင်အပေါ် ထိခိုက်နိုင်မှုများ									
လေထုညစ်ညမ်းခြင်း	<ul style="list-style-type: none"> လုပ်ငန်းခွင်အတွင်း ကုန်ကြမ်းနှင့် ကုန်ချော သယ်ယူပို့ဆောင်ရေးသုံး မော်တော်ယာဉ်တို့ ကြောင့် ဖုန်မှုန့်နှင့် ဖန်လုံ အိမ် ဓါတ်ငွေ့ ထွက်ခြင်း အရေးပေါ်ဒီဇယ်သုံးမီးစက်နှင့် ဘိုင်းလာမှ စွန့်ထုတ် အခိုးအငွေ့ ထွက်ခြင်း 	၃	၄	၂	၃	၂၇	အနည်းငယ်	<ul style="list-style-type: none"> ဝန်းကျင်လေထုအတွင်း ညစ်ညမ်းမှုများ၊ အမှုန်များကို ရှုမိခြင်းကြောင့် ဖြစ်သည့် ကျန်းမာရေး ပြဿနာများဖြစ်ပွားနိုင်မှုအခွင့်အလမ်းများခြင်း နှလုံး၊ အဆုတ်ရောဂါသည်များနှင့် သက်ကြီးရွယ်အို များ၊ ကလေးသူငယ်များ အတွက် အန္တရာယ်ရှိခြင်း 	<ul style="list-style-type: none"> လေထုညစ်ညမ်းမှုကို ထိန်းချုပ်ရန် အတွက် ယာဉ်များ၊ ဂျင်နရေတာနှင့် စက်များကို ပုံမှန် စစ်ဆေးထိန်းသိမ်းရန် မီးစက်တွင် မီးခိုးခေါင်းတိုင် တပ်ဆင် ခြင်းဖြင့် အခိုးအငွေ့ကြောင့် ပတ်ဝန်းကျင် ထိခိုက်မှုကို လျှော့ချခြင်း စက်ရုံအတွင်းနှင့် အနီးအနားတွင် သစ်ပင် ပန်းမံ စိုက်ပျိုးခြင်းဖြင့် carbon ထွက်ရှိမှုကို လျှော့ချပေးခြင်း
အသံဆူညံမှုနှင့် တုန်ခါမှု	<ul style="list-style-type: none"> လုပ်ငန်းတွင်း ထုတ်လုပ်မှုသုံး စက်ပစ္စည်းများမှ အသံဆူညံမှုရှိခြင်း 	၃	၄	၂	၄	၃၆	အသင့်အတင့်	<ul style="list-style-type: none"> ကျယ်လောင်သည့် အသံအား အဆင်မပြတ် ကြားရခြင်း ကြောင့် နားအတွင်း ပဲ့တင် ထပ်နေခြင်းနှင့် အကြားအာရုံ လျော့နည်းလာခြင်း 	<ul style="list-style-type: none"> အသံဆူညံမှုများသည့် နေရာများ၏ တံခါးများ ပိတ်ထားခြင်းနှင့် သီးသန့်ခန်းဖြင့် ထားရှိ စေခြင်း။ အသံထုတ်လွှတ်မှုနည်းသော စက်ပစ္စည်းများ အသုံးပြုစေခြင်း။



	<ul style="list-style-type: none"> ဘွိုင်လာနှင့် ဂျင်နရေတာများမှ အသံဆူညံမှုရှိခြင်း 							<ul style="list-style-type: none"> ကျယ်လောင်သည့် အသံအား အဆင်မပြတ် ကြားရခြင်းကြောင့် ရုပ်ပိုင်းနှင့် စိတ်ပိုင်းဆိုင်ရာ ဖိအားများ ဖြစ်နိုင်ပြီး စွမ်းဆောင်ရည် လျော့ကျ ခြင်း၊ အာရုံစိုက်ရမည့် လုပ်ငန်းများတွင် အနှောင့်အယှက် ဖြစ်ခြင်းနှင့် အရေးပေါ် ကိစ္စရပ်များတွင် အန္တရာယ် အချက်ပြ သတိပေးသံများကို မကြားမိခြင်းကြောင့် လုပ်ငန်းခွင် ထိခိုက်မှုများ ဖြစ်ပွားနိုင် ခြင်း 	<ul style="list-style-type: none"> စက်ပစ္စည်းများနှင့် ကိရိယာများကို ချောဆီ ထည့်၍ ထိန်းသိမ်းခြင်း ဆူညံသံများသော စက်ရုံလုပ်ငန်းနေရာများ တွင် တစ်ကိုယ်ရည်သုံး ကာကွယ်ရေး ပစ္စည်းများ တပ်ဆင် အသုံးပြုစေခြင်း။
<p>ရေထုညစ်ညမ်းခြင်း</p>	<ul style="list-style-type: none"> ဘေစင်၊ မီးဖိုဆောင်၊ အိမ်သာနှင့် စက်ပစ္စည်းများဆေးကြောရာမှ ထွက်သည့် စွန့်ပစ်ရေများ (စက်ရုံမှ ထုတ်လုပ်မှုဆိုင်ရာ လုပ်ငန်းသုံးစွန့်ပစ်ရေထွက်ရှိခြင်းမရှိပါ) 	၂	၄	၂	၂	၁၆	အနည်းငယ်	<ul style="list-style-type: none"> အိမ်သုံးစွန့်ပစ်ရေများ စိမ့်ဝင်ခြင်း/တိုက်ရိုက်စီးဆင်းသွားခြင်းဖြင့် မြေအောက်ရေနှင့် မျက်နှာပြင် ရေအရင်းအမြစ်များထံ ရောက်ရှိပြီး ရေထုညစ်ညမ်းခြင်း 	<ul style="list-style-type: none"> စက်ရုံ၏ ရေမြောင်းများ၊ အနီးဝန်းကျင် ရေမြောင်းများနှင့် မိလ္လာစနစ်ကို ရေလုံပြီး လုံလောက်သော စွမ်းဆောင်ရည်ရှိစေခြင်း ရေမြောင်းများကို ပုံမှန် စစ်ဆေး ထိန်းသိမ်းခြင်း အနံ့ဆိုးထွက်ခြင်းနှင့် ရေစီးဆင်းမှု ပိတ်ဆို့ခြင်း မှ ကင်းဝေးစေရန် စက်ရုံအတွင်းရှိ ရေမြောင်း များကို သန့်ရှင်းရေးပြုလုပ်ခြင်း ညစ်ညမ်းမှုလျော့ချနိုင်ရန် ပုံမှန်စစ်ဆေး သန့်ရှင်းခြင်းနှင့် ဆီလျှော်ကန်များ၊ မိလ္လာကန် နှင့် သိုလှောင်ရုံနှင့် အမှိုက်စွန့်ပစ်ရာ နေရာ အားလုံးကို ကာရံထားခြင်း



<p>မြေဆီလွှာညစ်ညမ်းခြင်း</p>	<ul style="list-style-type: none"> လောင်စာဆီသိုလှောင်သည့် နေရာနှင့် လောင်စာဆီ ဖြည့်ရာတွင် လျှံကျ/ ယိုဖိတ်ခြင်း 	၁	၄	၁	၁	၆	အလွန်နည်း	<ul style="list-style-type: none"> လောင်စာဆီများ လျှံကျ/ယိုဖိတ်ခြင်းကြောင့် မြေဆီလွှာညစ်ညမ်းခြင်း 	<ul style="list-style-type: none"> လောင်စာယိုဖိတ်မှုမှ ဖြစ်သည့် ညစ်ညမ်းမှု နည်းစေရန် လောင်စာဆီသိုလှောင်သည့် နေရာ အောက်တွင် သဲခင်းထားခြင်း လောင်စာဆီသိုလှောင်သည့် နေရာများကို ကွန်ဂရစ်ခင်းထားခြင်းကြောင့် မြေညစ်ညမ်းမှု နည်းပါးခြင်း
<p>ဖိစီးအရင်းအမြစ်များအပေါ် ထိခိုက်နိုင်မှုများ</p>									
<p>ကုန်းနေ အပင်နှင့် သတ္တဝါများ၊ ရေနေ သတ္တဝါများ</p>	<ul style="list-style-type: none"> စက်ရုံလုပ်ငန်း လည်ပတ်ခြင်း 	၁	၄	၁	၁	၆	အလွန်နည်း	<p>စက်ရုံလုပ်ငန်း လည်ပတ်ခြင်းကြောင့် ရေ၊ မြေ ညစ်ညမ်းခြင်း နှင့် ဆူညံသံ ထွက်ရှိခြင်း</p>	<ul style="list-style-type: none"> စက်ရုံကြောင့်ဖြစ်ပွားနိုင်သည့် အကျိုးဆက် ကြောင့် ပတ်ဝန်းကျင်ကို သိသိသာသာ ထိခိုက်မှု မရှိနိုင်သဖြင့် လျော့ချရန် မလိုအပ်ပါ။
<p>လူသားများအပေါ် ထိခိုက်နိုင်မှုများ</p>									
<p>မီးဘေးအန္တရာယ်</p>	<ul style="list-style-type: none"> လျှပ်စစ်ပစ္စည်းတပ်ဆင်ထားသည့် နေရာများ ထုတ်လုပ်မှုဆိုင်ရာ စက်ပစ္စည်းများချို့ယွင်းမှုများ အမှိုက်စွန့်ပစ်သည့် နေရာ များ၊ ကုန်ကြမ်း သိုလှောင် သည့် နေရာနှင့် ဓာတုပစ္စည်းသိုလှောင်သည့် အခန်းများ 	၃	၄	၂	၄	၃၆	အသင့်အတင့်	<ul style="list-style-type: none"> ပျက်စီးဆုံးရှုံးမှုများ၊ ထိခိုက်ဒဏ်ရာ ရရှိမှုများ နှင့် အသက်သေဆုံးနိုင်မှု များ 	<ul style="list-style-type: none"> မီးအသုံးပြုသည့် နေရာအားလုံးကို စောင့်ကြပ်ထားခြင်း စက်ရုံ၏ မီးဘေးအန္တရာယ် ကာကွယ်ရန် အတွက် မီးသတ်ဗူး၊ မီးသတ်ပိုက်၊ မီးသတ်ခေါင်း များနှင့် အရေးပေါ် အချက်ပေးစနစ်များ ထားရှိ ခြင်း။ မီးသတ်ဆိုင်ရာ စက်ပစ္စည်းကိရိယာများကို ပုံမှန် စစ်ဆေးခြင်း၊ အရေးပေါ်အခြေအနေ အတွက် မီးသတ်ရေကန် အဆင်သင့် ထားရှိခြင်း။



									<ul style="list-style-type: none"> • အရေးပေါ်ထွက်ပေါက်များ တလျောက်တွင် စက်ပစ္စည်းများနှင့် ကုန်ပစ္စည်းများ ပိတ်ဆို့ခြင်းမရှိအောင် ရှင်းလင်း ထားရှိခြင်း။
လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ် ကင်းရှင်းရေး	<ul style="list-style-type: none"> • စက်ပစ္စည်းများလည်ပတ်ခြင်းကြောင့် မတော် တဆ ထိခိုက်မှု များ ဖြစ်ပေါ်နိုင်ခြင်း။ • ပစ္စည်းတင်ချ ပြုလုပ် ခြင်း၊ ဖြတ်တောက်ခြင်း၊ ရောနှောခြင်း၊ ဖိနှိပ်ခြင်း၊ ထုတ်ပိုးခြင်း။ • အပူသုံးစက်များကြောင့် မတော်တဆ ထိခိုက် မှုများ ဖြစ်ပေါ်နိုင်ခြင်း။ 	၃	၄	၁	၄	၃၂	အသင့်အတင့်	<ul style="list-style-type: none"> • လုပ်ငန်းလည်ပတ်နေစဉ်အတွင်း လုပ်ငန်းခွင် အန္တရာယ် ဖြစ်ပွားမှုများ (ထိခိုက်ဒဏ်ရာ ရရှိမှုများနှင့် အသက်သေဆုံးနိုင်မှုများ) • ရွှေ့ပြောင်းအလုပ်သမားများမှ တဆင့် ရောဂါ ကူးစက်မှု များ ဖြစ်နိုင်ခြင်း • လုပ်ငန်းခွင် ဖိအားများ ကြောင့် အာရုံစူးစိုက်နိုင်စွမ်း နည်းပါးခြင်းများ၊ လုပ်ငန်းခွင်တွင်း စွမ်းဆောင်ရည် လျော့ကျခြင်းများနှင့် အိပ်ရေးမဝခြင်းကြောင့် ပင်ပန်းနွမ်းနယ်မှု များမှ တဆင့် ၎င်းထက် ပိုမို ပြင်းထန်သောကျန်းမာရေး ပြဿနာများ ဖြစ်ပွားနိုင်ခြင်း 	<ul style="list-style-type: none"> • အရေးပေါ်အခြေအနေများအတွက် ရှေးဦး သူနာပြုသင်တန်း၊ ဘေးအန္တရာယ်ကင်းရှင်းရေးသင်တန်း၊ စက်ပစ္စည်း ကိုင်တွယ်မှု သင် တန်းနှင့် မီးသတ်သင်တန်းများ ပေးခြင်း။ • လုပ်ငန်းခွင်တွင်း အလုပ်သမားများ အလင်း ရောင်ကောင်းစွာ ရရှိစေရန်နှင့် အမြင် အာရုံ မထိခိုက်စေရန် အလင်းရောင် လုံလောက်စွာ ထားရှိခြင်း။ • အလုပ်သမားများအတွက် တစ်ကိုယ်ရေ ကာကွယ်ရေးသုံး ပစ္စည်းများ ဖြစ်သည့် နားကြပ်၊ လက်အိတ်၊ ဦးထုပ်၊ မျက်မှန်များ အသုံးပြုစေခြင်း။ • လျှပ်စစ်အန္တရာယ်မဖြစ်စေရန်နှင့် ပြုပြင်ထိန်းသိမ်းမှုများ ပြုလုပ်ရန်အတွက် လျှပ်စစ် ကျွမ်းကျင်ဝန်ထမ်း ထားရှိ၍ ပုံမှန် စစ်ဆေးခြင်း။ • ဘေးအန္တရာယ် ဖြစ်ပွားနိုင်ခြေရှိပါက ချက်ချင်း အချက်ပေး သတင်းပို့ခြင်းနှင့် ဖြစ်ပွား လာနိုင်သည့် အန္တရာယ်များအား အလုပ်သမား များအား အသိပညာပေးခြင်း • ဒီဇယ်ဆီနှင့် ဓာတုပစ္စည်းများကို အရေပြားနှင့် တိုက်ရိုက်ထိတွေ့မှုမရှိစေရန် ရှောင်ရှားခြင်း



									<ul style="list-style-type: none"> • ဘေးကင်းစွာ အလုပ်လုပ်ကိုင်နိုင်ရန် အတွက် ရေမြောင်းစနစ်ကို အနံ့ဆိုး မထွက်အောင် စနစ်တကျစီမံထားခြင်း၊ သတ်မှတ် ဆူညံသံ အတွင်း၌သာ ရှိစေခြင်းနှင့် အလင်းရောင် လုံလောက်မှုရှိစေခြင်း
<p>အညစ်အကြေးထွက်ရှိမှုမှ ထိခိုက်နိုင်မှုများ</p>									
<p>စွန့်ပစ်အစိုင်အခဲ</p>	<ul style="list-style-type: none"> • ထုတ်လုပ်ရာတွင် ထွက်ရှိသည့် ဖြတ်စ/ညှပ်စများ • ထုတ်ပိုးရာတွင် ထွက်သည့် စွန့်ပစ်ပစ္စည်းများ • မီးဖိုချောင်နှင့် လုပ်သား များမှ ထွက်သည့် စွန့်ပစ် ပစ္စည်းများ 	၃	၄	၁	၄	၃၂	အသင့်အတင့်	<ul style="list-style-type: none"> • ပတ်ဝန်းကျင်ညစ်ညမ်းမှုနှင့် မြေဆီလွှာ ညစ်ညမ်း မှုများ ဖြစ်ပွားနိုင်ခြင်း 	<ul style="list-style-type: none"> • အမှိုက်များကို အမျိုးအစားအလိုက် အမှိုက်ပုံးများသတ်မှတ်၍ ခွဲခြားစွန့်ပစ်စေခြင်းနှင့် သီးခြားအမှိုက်စုပုံသည့် နေရာတွင် သီးသန့်ထားရှိခြင်း။ • ပြန်လည်အသုံးပြုနိုင်သည့် စွန့်ပစ်ပစ္စည်း များကို ပြည်တွင်းဝယ်ယူသူများထံ ပြန်လည်ရောင်းချ ခြင်း • ဖြတ်စက်ကြီးများကို အသုံးပြု၍ ကုန်ကြမ်းအလေအလွင့်နည်းအောင်နှင့် ပိတ်ညှပ်သည့် နည်းစနစ်များ တိုးတက်စေရန် လုပ်ဆောင်ခြင်း • ကုန်ကြမ်း(ရာဘာပြား)များ ညှပ်ရာမှ ထွက်လာ သည့် ဖြတ်စများကို စက်ဖြင့် ပြန်ကြိတ်၍ ကုန်ကြမ်းအဖြစ် ပြန်လည် အသုံးပြုခြင်း • အမှိုက်များကို ပဲခူးမြို့နယ် စည်ပင်သာယာ လိုင်စင်ရ MJT ပဲခူးမြို့ အမှိုက်သိမ်း ဝန်ဆောင်မှု ကုမ္ပဏီနှင့် ချိတ်ဆက်၍ စွန့်ပစ်ခြင်း။



<p>စွန့်ပစ်အရည်</p>	<ul style="list-style-type: none"> မိလ္လာကန်စနစ် ရုံးခန်း၊ မီးဖိုဆောင် ဘေစင်နှင့် လူနေဆောင် တို့မှ စွန့်ပစ်ရေ 	၂	၄	၂	၂	၁၆	အနည်းငယ်	<ul style="list-style-type: none"> မြေညစ်ညမ်းခြင်း၊ မျက်နှာပြင်ရေနှင့် မြေအောက်ရေညစ်ညမ်းခြင်း 	<ul style="list-style-type: none"> ဆီကန်၊ မိလ္လာကန်များကို ပုံမှန် စစ်ဆေးခြင်း၊ စနစ်တကျ ဖုံးအုပ်ထားခြင်း၊ သန့်စင်ခြင်းများ ပြုလုပ်ခြင်းဖြင့် စွန့်ပစ်အရည်များ စိမ့်ဝင်မှု များကို လျော့ကျစေနိုင်ခြင်း။
<p>အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများ</p>	<ul style="list-style-type: none"> စက်များမှ ဆီယိုစိမ့်မှု များ၊ မော်တော်ယာဉ်များ ပြုပြင်ထိန်းသိမ်းမှုမှ ထွက်ရှိသည့် ဆီနှင့် ချောဆီများ မီးချောင်းကွဲများ၊ ဘတ်ထရီများနှင့် စက်ဆီ ထည့်သည့် ပုံးခွံများ စသည့် အန္တရာယ်ရှိ စွန့်ပစ်အမှိုက်များ 	၃	၄	၁	၃	၂၄	အနည်းငယ်	<ul style="list-style-type: none"> မြေနှင့် ရေညစ်ညမ်းခြင်း အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများကြောင့် ထိခိုက်ဒဏ်ရာ ရရှိနိုင်ခြင်း 	<ul style="list-style-type: none"> အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများ သိုလှောင်မှုအား သေချာ ကြပ်မတ် စစ်ဆေးခြင်း။ ဓာတုပစ္စည်းများနှင့် ပုံးခွံများကို လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် လုံခြုံရေးသတ်မှတ်ချက်များနှင့် အညီ စွန့်ပစ်စေခြင်း ဓာတုပစ္စည်းပုံးခွံများကို ပြန်လည် အသုံးပြု နိုင်ရန် ရောင်းချခြင်း အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများကို မစွန့်ပစ်မီ ဘေးကင်းအောင် သိုလှောင်ထားရန်နှင့် ပဲခူး မြို့နယ် စည်ပင်သာယာ လိုင်စင်ရ MJT ပဲခူးမြို့ အမှိုက်သိမ်းဝန်ဆောင်မှု ကုမ္ပဏီနှင့် ချိတ်ဆက် ၍ စွန့်ပစ်ခြင်း။
<p>သဘာဝဘေးအန္တရာယ်များ</p>									
<p>သဘာဝဘေးအန္တရာယ် (ငလျင်၊ ရေကြီး ရေလျှံ၊ မြေပြို၊ မုန်တိုင်း)</p>	<ul style="list-style-type: none"> ရေကြီးခြင်းနှင့် မိုးသက်လေပြင်းကျခြင်း တို့ကဲ့သို့ သဘာဝ ဘေးများ၊ လုပ်ငန်းသုံးစက်ပစ္စည်း ချို့ယွင်းမှုများကြောင့် ဖြစ်သော မတော်တဆ အန္တရာယ်များ 	၄	၄	၃	၃	၃၃	အသင့်အတင့်	<ul style="list-style-type: none"> အဆောက်အဦးပြိုကျခြင်း၊ ထိခိုက်ဒဏ်ရာရရှိခြင်းနှင့် အသက်သေဆုံးနိုင်ခြင်း၊ ပစ္စည်းများဆုံးရှုံးနိုင်ခြင်း 	<ul style="list-style-type: none"> အရေးပေါ်အခြေအနေများနှင့် အကြောင်းရင်း များကို နောက်ဆက်တွဲစုံစမ်းမေးမြန်းရန် အတွက် သက်ဆိုင်ရာမှတ်တမ်းများနှင့် ကိရိယာ များကို ထိန်းသိမ်းထားခြင်း



လုပ်ငန်းပိတ်သိမ်းချိန်ကာလ									
လေထုညစ်ညမ်းမှု	<ul style="list-style-type: none"> အဆောက်အဦများ ဖြိုချမှုများ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	၃	၁	၂	၃	၁၈	အနည်းငယ်	လေထုထဲသို့ ကာဗွန်ဒိုင်အောက်ဆိုဒ်များထွက်ခြင်း အမှုန်များနှင့်	<ul style="list-style-type: none"> အမှုန်မပျံ့လွင့်အောင် တစ်နေ့ နှစ်ကြိမ် ရေဖြန်းခြင်း ဖျက်သိမ်းရေးယာများကို mesh trap များဖြင့် ဖုံးအုပ်ထားခြင်း ဖျက်သိမ်းရေးယာတွင် ခြံစည်းရိုး အထက် နှစ်မီတာခန့်အထိ shading net ကာထားခြင်း ဖြိုချပစ္စည်းများကို Canvas အစ ကာ၍ သယ်ယူခြင်း
ရေထုညစ်ညမ်းမှု	<ul style="list-style-type: none"> ဖြိုချပစ္စည်းများနှင့် မိလ္လာ ဖျက်ဆီးမှုများ စက်ပစ္စည်းဖျက်သိမ်းမှုများ 	၂	၁	၁	၃	၁၂	အလွန်နည်း	မြေအောက်ရေနှင့် မျက်နှာပြင်ရေထုကို ညစ်ညမ်းစေခြင်း	<ul style="list-style-type: none"> ဖျက်သိမ်းရာတွင် နည်းစနစ်တကျ ဖြိုချစေခြင်း
ဆူညံသံ	<ul style="list-style-type: none"> အဆောက်အအုံနှင့် ဆက်စပ်ပစ္စည်းများ ဖျက်ဆီးမှုများ ဖျက်သိမ်းရာမှ ထွက်လာ သည့် ပစ္စည်းများ သယ်ယူပို့ဆောင်မှုများ 	၃	၁	၂	၃	၁၈	အနည်းငယ်	ပတ်ဝန်းကျင်သို့ ဆူညံမှုများစေခြင်း	<ul style="list-style-type: none"> နေ့အချိန်တွင်သာ လုပ်ငန်း ဆောင်ရွက်ခြင်း စက်ပစ္စည်းများ၊ သယ်ယူပို့ဆောင်ရေးကိရိယာများကို အသံ ဆူညံမှု လျော့နည်းစေခြင်း လုပ်သားများ တစ်ကိုယ်ရေ ကာကွယ်ရေး သုံးပစ္စည်း (နားကြပ်) များ အသုံးပြု စေခြင်း။
စွန့်ပစ်အစိုင်အခဲ	<ul style="list-style-type: none"> ဖျက်သိမ်းရာမှ ထွက်ရှိလာ သော တည်ဆောက်ရေး ပစ္စည်းများ၊ အုတ် အကျိုး အပဲ့၊ အပိုင်းအစ များ။ 	၃	၁	၂	၄	၂၄	အနည်းငယ်	ပတ်ဝန်းကျင်တွင် စုပုံနေခြင်း အမှိုက်များ	<ul style="list-style-type: none"> စွန့်ပစ်ပစ္စည်းများကို ပြန်လည် အသုံးပြုခြင်း နှင့် ပဲခူးမြို့နယ် စည်ပင်သာယာ လိုင်စင်ရ MJT ပဲခူးမြို့ အမှိုက်သိမ်း ဝန်ဆောင်မှု ကုမ္ပဏီနှင့် ချိတ်ဆက်၍ စွန့်ပစ်ခြင်း။

<p>အန္တရာယ်ရှိ အမှိုက်</p>	<ul style="list-style-type: none"> • ဓာတုပုံးခွံ/ ဒီဇယ်ပုံး အခွံများ 	၃	၁	၂	၃	၁၈	အနည်း ငယ်	ဆီယိုဖိတ်ခြင်း	<ul style="list-style-type: none"> • ပုံးများကို ပြန်လည် ဆေးကြော အသုံးပြုခြင်း (သို့) လိုင်စင်ရ ပဲခူးမြို့ အမှိုက်သိမ်း ဝန်ဆောင် မှု ကုမ္ပဏီနှင့် ချိတ်ဆက်၍ စနစ်တကျ စွန့်ပစ်ခြင်း။
<p>လုပ်ငန်းခွင်ကျ န်းမာရေးနှင့် ဘေးအန္တ ရာယ်ကင်း ရှင်းရေး</p>	<ul style="list-style-type: none"> • အဆောက်အဦများ ဖြိုချမှုများ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	၃	၁	၁	၃	၁၅	အနည်း ငယ်	စီမံကိန်းဖျက်သိမ်းစဉ်တွင် မတော်တဆ ထိခိုက်မှုများ ဖြစ်ပေါ်စေနိုင်ခြင်း။	<ul style="list-style-type: none"> • ဖြိုဖျက်ရေးလုပ်ငန်းများ ဆောင်ရွက်သည့် နေရာများကို စည်းတိပ်များ တား၍ အန္တရာယ် ဖန်အဖြစ် ကာရံထားခြင်း၊ သတိပေး ဆိုင်းဘုတ် များထားရှိခြင်း၊ အမှတ်အသား ပြုလုပ်ထား ခြင်း၊ Lost time injury notice board များ ထားရှိခြင်း • ဖြိုချပစ္စည်း အကြွင်းအကျန်များနှင့် စွန့်ပစ် အရည် ထွက်ရှိမှုများကို သေချာရှင်းလင်း ဆောင်ရွက်စေခြင်း။ • အန္တရာယ်ရှိ ပစ္စည်းများသယ်ယူရန် ကျွမ်းကျင် လုပ်သားများ ပါဝင်သည့် အဖွဲ့အစည်းကို ချိတ်ဆက် ခေါ်ယူဆောင်ရွက်စေခြင်း။

သိသာထင်ရှားသော သက်ရောက်မှုများကိုတွက်ချက်ရာတွင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုနှင့် ဆန်းစစ်ခြင်း အဖွဲ့အစည်း (IEMA) မှ ချမှတ်ထားသော နည်းလမ်းကို အသုံးပြု၍ ဆန်းစစ်ထားပါသည်။ စီမံကိန်းလုပ်ဆောင်ချက်များပေါ် မူတည်၍ ရလဒ်များ နည်းသည်။ အလွန်နည်းသည်ကို ဖော်ပြထားပါသည်။ အချို့ရလဒ်များမှာ အသင့်အတင့် ရှိပါသည်။ လူမှုစီးပွားဆိုင်ရာ တိုးတက်မှုများအနေဖြင့် ကောင်းမွန်သော သက်ရောက်မှု ရှိသည်ကို တွေ့ရှိရပါသည်။

ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်

အဆိုပြုလုပ်ငန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် Plan-Do-Check-Act (P D C A) စက်ဝိုင်းဖြင့် အစီစဉ်တကျ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ အစီအစဉ်တွင် စက်ရုံကြောင့် ဖြစ်ပေါ်စေနိုင်သော ပတ်ဝန်းကျင်နှင့် လူမှုဘဝအပေါ် ဆိုးကျိုးသက်ရောက်မှုများကို လျှော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစရှိသည့် အစီအစဉ်များ ပါဝင်ပါသည်။ ၎င်း EMP အစီအစဉ်များကို အကောင်အထည် ဖော်ရန်အတွက် စက်ရုံတွင် ကျန်းမာရေး၊ ဘေးအန္တရာယ် ကင်းရှင်းရေးနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အဖွဲ့အစည်း တစ်ခု ထားရှိပြီး လျှော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်များကို အကောင်အထည် ဖော်သွားမည်ဖြစ်ပါသည်။ အဆိုပါစက်ရုံ၏ ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်ကို ရေရှည်ဖွံ့ဖြိုး တိုးတက် ကောင်းမွန်သော ပတ်ဝန်းကျင်အဖြစ် အကောင်အထည်ဖော် ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ဆိုင်ရာ ဆိုးကျိုး သက်ရောက်မှုများကို လျှော့နည်းစေရန် စီမံခန့်ခွဲမှုအစီအစဉ်များနှင့် စောင့်ကြပ် ကြည့်ရှုရမည့် အစီအစဉ်များကို အောက်ပါအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ အကြောင်းအရာတစ်ခုချင်းစီအလိုက် ခွဲခြားမှု ပြုလုပ်ထားပါသည်။

၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- လေထုညစ်ညမ်းမှုနှင့် ကာဘွန်ထွက်ရှိမှုကို လျော့ချရန် သစ်ပင်များစိုက်ပျိုးခြင်း
- ဖုံထူထပ်သောနေရာများတွင် အလုပ်သမားများကို တစ်ကိုယ်ရေသုံး အကာအကွယ် ပစ္စည်းများ အသုံးပြုစေခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁၆၀၀၀၀၀ ကျပ်

၂။ ဆူညံမှုထိန်းခြင်းဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- မီးစက်ခန်းများတွင် ဆူညံသံထိန်းချုပ်ကိရိယာများတပ်ဆင်ခြင်း
- လုံလောက်သော တစ်ကိုယ်ရေသုံးကာကွယ်ရေးပစ္စည်းများ အသုံးပြုစေခြင်း
- ဆူညံသောနေရာများတွင် အလုပ်လုပ်သော အလုပ်သမားများအတွက် တစ်ကိုယ်ရေသုံး ကာကွယ်ရေး ပစ္စည်းများကို အသုံးပြုစေခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၈၀၀၀၀၀ ကျပ်



၃။ အမှိုက်စွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- စွန့်ပစ်အစိုင်အခဲများကို အစိုအခြောက်ခွဲခြား၍ သီးခြားစွန့်ပစ်စေခြင်း
- နေ့စဉ်ထွက်စွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်စည်ပင်သာယာရေးကော်မတီနှင့် ချိတ်ဆက် စွန့်ပစ်ခြင်း
- တစ်လ ခန့်မှန်းကုန်ကျစရိတ် ၅၀၀၀၀ ကျပ်

၄။ ရေဆိုးစွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- စက်ရုံမြောင်း ရေစီးရေလာကောင်းစေရန် ထိန်းချုပ်ခြင်း
- မိလ္လာစနစ်ကို စစ်ဆေးခြင်း
- စက်ရုံရေမြောင်းများ ပိတ်ဆို့ခြင်းမဖြစ်စေရန် စစ်ဆေးခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၆၀၀၀၀၀ ကျပ်

၅။ စွမ်းအင်အသုံးပြုမှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- စွမ်းအင်အသုံးပြုမှုလျော့ချရေးစနစ်ကို အသုံးပြုခြင်း
- မလိုအပ်သော နေရာများတွင် လျှပ်စစ်အသုံးပြုခြင်း၊ မီးထွန်းထားခြင်း စသည်တို့ကို ကြည့်ရှုထိန်းသိမ်းခြင်း
- ပြည့်ဖြိုးမြဲစွမ်းအင် Solar အသုံးပြုခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁၀၀၀၀၀၀ ကျပ်

၆။ ရေအသုံးပြုမှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- ရေအသုံးပြုမှုကို သိရှိနိုင်ရန် water meter အသုံးပြုခြင်း
- ရေအသုံးပြုမှုကို ထိန်းသိမ်းမှုများ ပြုလုပ်နိုင်စေရန် ဝန်ထမ်းများကို သင်ကြားပေးခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၅၀၀,၀၀၀ ကျပ်

၇။ အရေးပေါ်တုံ့ပြန်ရေး အစီအစဉ်

- မီးသတ်စနစ်များကို ကောင်းမွန်အောင်ပြုလုပ်ခြင်း
- အရေးပေါ်စနစ်ထားရှိခြင်း (ဥပမာ- အရေးပေါ်ထွက်ပေါက်)
- ငလျင်နှင့် တခြားသော အရေးပေါ်ကိစ္စရပ်များအတွက် ဆေးဝါး၊ ကြက်ခြေနီ သင်တန်းများ ထားရှိခြင်း

- မီးသတ်တပ်ဖွဲ့များ၊ ကယ်ဆယ်ရေးတပ်ဖွဲ့များဖွဲ့စည်းခြင်း၊ လုံခြုံရေးအတွက် စက်ရုံဝန်ထမ်းများကို သင်တန်းပေးခြင်း။
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁,၅၀၀,၀၀၀ ကျပ်

၈။ မီးဘေးအန္တရာယ် စီမံခန့်ခွဲမှုအစီအစဉ်

- အရေးပေါ်အခြေအနေများအတွက် မီးသတ်ဆေးဘူးများ၊ မီးသတ်ပိုက်ဘီးများနှင့် စက်ရုံနံရံ များတွင် မီးသတ်ရေပိုက်များ ထားရှိခြင်း
- အရေးပေါ်ထွက်ပေါက်နှင့် စုဝေးရာနေရာတို့ကို ညွှန်ပြထားခြင်း
- မီးငြိမ်းသတ်ကိရိယာများကို ပုံမှန်စစ်ဆေးခြင်း၊ အရေးပေါ်အခြေအနေတွင် မီးငြိမ်းသတ်ရန်အတွက် ရေသိုလှောင်ကန်ထားရှိခြင်း
- မီးလောင်မှုဖြစ်ပွားပါက အလုပ်သမားများအား သတိပေးရန်အတွက် စက်ရုံတွင် အရေးပေါ် မီးသတိပေးကိရိယာများ တပ်ဆင်ထားခြင်း
- စက်ရုံ၏ မီးဘေးအရေးပေါ် အခြေအနေများအတွက် အဓိကဝင်ပေါက်များနှင့် လမ်းကြောင်းများကို ပစ္စည်းများ သို့မဟုတ် စက်များဖြင့် ပိတ်ဆို့ထားခြင်း မရှိစေခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁,၂၀၀,၀၀၀ ကျပ်

၉။ လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးကင်းရေး စီမံခန့်ခွဲမှုအစီအစဉ်

- ရှေးဦးသူနာပြုသင်တန်း၊ ဘေးကင်းရေးသင်တန်း၊ မီးငြိမ်းသတ်လေ့ကျင့်ရေး သို့မဟုတ် အလုပ်သမား များ၏ အရေးပေါ်အခြေအနေများနှင့် စက်ပစ္စည်းကိုင်တွယ်ခြင်းအတွက် အခြား လိုအပ်သော သင်တန်းများပေးခြင်း
- စက်ရုံအလုပ်သမားများအတွက် တစ်ကိုယ်ရေ အကာအကွယ်ပစ္စည်း (PPE) များ ပံ့ပိုးပေးခြင်း
- အလုပ်သမားများ၏ ကျန်းမာရေးအန္တရာယ်ကို ကာကွယ်ရန် စက်ရုံ၏ ရေနုတ်မြောင်း စနစ်များကို စီမံခန့်ခွဲခြင်း။
- တစ်နှစ်လျှင် ၁,၂၀၀,၀၀၀ ကျပ်

၁၀။ ဘေးအန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲမှုအစီအစဉ်

- အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများ သိုလှောင်ရာတွင် စနစ်တကျ စစ်ဆေးခြင်းနှင့် ပြုပြင်ထိန်းသိမ်းခြင်း။

- အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများကို MJT ကဲ့သို့ အထူးလိုင်စင်ရ သယ်ဆောင်သူများနှင့် ချိတ်ဆက်၍ စနစ်တကျစွန့်ပစ်ခြင်း
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁,၀၀၀,၀၀၀ ကျပ်

၁၂။ ဓာတုပစ္စည်း သိုလှောင်၊ ကိုင်တွယ်ခြင်းနှင့် စွန့်ပစ်ခြင်း စီမံခန့်ခွဲမှုအစီအစဉ်

- ဓာတုပစ္စည်းများကို လေဝင်လေထွက်ကောင်းသော သတ်မှတ်နေရာတွင် အန္တရာယ်ပြ ဆိုင်းဘုတ်များ၊ လမ်းညွှန်စာများ ထားရှိ၍ သိုလှောင်ခြင်း
- ဓာတ်ပြုမှုများမဖြစ်ပေါ်စေရန် တူညီသည့် အမျိုးအစားအလိုက် သိုလှောင် ထားရှိခြင်း
- ဓာတုပစ္စည်းများကိုင်တွယ်ရာတွင် ဝန်ထမ်းများကို လက်အိတ်နှင့် နှာခေါင်းစည်း ကဲ့သို့ တစ်ကိုယ်ရည်သုံးကာကွယ်ရေးပစ္စည်းများ ဝတ်ဆင်၍ လုပ်ကိုင်စေခြင်း
- ဓာတုစွန့်ပစ်ပစ္စည်းများကို ၎င်းတို့၏ ဂုဏ်သတ္တိများအလိုက် သတ်မှတ်ဥပဒေများ နှင့်အညီ လိုင်စင်ရ စွန့်ပစ်အဖွဲ့အစည်းဖြင့် ခွဲခြားစွန့်ပစ်ခြင်း
- ဓာတုပစ္စည်းများကိုင်တွယ်ခြင်းနှင့်စွန့်ပစ်ခြင်းကို ပတ်ဝန်းကျင်ဆိုင်ရာ အန္တရာယ် ကင်းမဲ့ သတ်မှတ်ချက်များနှင့်အညီ လုပ်ဆောင်ခြင်းရှိ/မရှိ ပုံမှန်စစ်ဆေးရန်
- တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁,၅၀၀,၀၀၀ ကျပ်

စီမံကိန်းဖော်ဆောင်ချိန်အတွင်း ပတ်ဝန်းကျင်အပေါ်သက်ရောက်မှုများ၊ လျော့ချရေး နည်းလမ်းများ၊ အစီအစဉ်များ၊ တိုင်းတာမှုများ စသည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်များကို လုပ်ဆောင်ရပါသည်။ Melody Global Company Limited မှ စက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် အဖွဲ့အစည်း ဖွဲ့စည်းခြင်း၊ ပုံမှန်ဆန်းစစ် လေ့လာခြင်းများ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ ပတ်ဝန်းကျင် လေထုအရည်အသွေး၊ ဆူညံသံ၊ မိလ္လာစနစ်၊ စွန့်ပစ်အစိုင်အခဲ စွန့်ပစ်မှုများကို စက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအဖွဲ့မှ တာဝန်ယူ ဆောင်ရွက်သွားမည်ဖြစ်ပြီး စောင့်ကြပ်ကြည့်ရှုသည့် အစီရင်ခံစာအား ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနသို့ (၆)လ တစ်ကြိမ် တင်ပြအစီရင်ခံသွားမည် ဖြစ်ပါသည်။

စဉ်	အမျိုးအစား	အကြိမ်ရေ	လျာထားရန်ပုံငွေ (ကျပ်)
ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုနှင့် စောင့်ကြပ်ကြည့်ရှုမည့် အစီအစဉ်			
(၁)	လေအရည်အသွေး	တစ်နှစ်လျှင် (၂)ကြိမ်	တစ်နှစ်လျှင် (၁,၆၀၀,၀၀၀)
(၂)	ရေအရည်အသွေး (မြေအောက်ရေ)	တစ်နှစ်လျှင် (၂)ကြိမ်	တစ်နှစ်လျှင် (၆၀၀,၀၀၀)
(၃)	ဆူညံသံ	တစ်နှစ်လျှင် (၂)ကြိမ်	တစ်နှစ်လျှင် (၈၀၀,၀၀၀)

စဉ်	အမျိုးအစား	အကြိမ်ရေ	လျာထားရန်ပုံငွေ (ကျပ်)
(၄)	အနံ့ထွက်ရှိမှု	တစ်နှစ်လျှင် (၂)ကြိမ်	တစ်နှစ်လျှင် (၁,၀၀၀,၀၀၀)
(၅)	အလင်းရောင်ပြင်းပြမှု	တစ်နှစ်လျှင် (၂)ကြိမ်	တစ်နှစ်လျှင် (၄၀၀,၀၀၀)
(၆)	အစိုင်အခဲစွန့်ပစ်ပစ္စည်းထွက်ရှိမှု (ပြန်သုံး၍/ပြန်သုံး၍မရ)	အပတ်စဉ်	တစ်နှစ်လျှင် (၆၀၀,၀၀၀)
(၇)	အစိုင်အခဲစွန့်ပစ်ပစ္စည်းထွက်ရှိမှု (ဘွိုင်လာပြာ)	တစ်နှစ်လျှင် (၂)ကြိမ်	တစ်နှစ်လျှင် (၁,၀၀၀,၀၀၀)
(၈)	စွန့်ပစ်အရည်ထွက်ရှိမှု	တစ်နှစ်လျှင် (၂)ကြိမ်	တစ်နှစ်လျှင် (၆၀၀,၀၀၀)
(၉)	ဘေးအန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းထွက်ရှိမှု	လစဉ်	တစ်နှစ်လျှင် (၁,၀၀၀,၀၀၀)
(၁၀)	လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေး	အပတ်စဉ်	တစ်နှစ်လျှင် (၁,၂၀၀,၀၀၀)
(၁၁)	မီးဘေးအန္တရာယ်ကင်းရှင်းရေး	လစဉ်	တစ်နှစ်လျှင် (၁,၂၀၀,၀၀၀)
(၁၂)	စွမ်းအင်အသုံးပြုမှု လျှော့ချခြင်း	နှစ်စဉ်	တစ်နှစ်လျှင် (၁,၀၀၀,၀၀၀)
(၁၃)	ရေအသုံးပြုမှု လျှော့ချခြင်း	နေ့စဉ်	တစ်နှစ်လျှင် (၅၀၀,၀၀၀)
(၁၄)	အရေးပေါ်တုံ့ပြန်ခြင်းနှင့် ဘေးအန္တရာယ်စီမံခန့်ခွဲမှု	အပတ်စဉ်	တစ်နှစ်လျှင် (၁,၅၀၀,၀၀၀)
(၁၅)	ဓာတုပစ္စည်းသိုလှောင်၊ ကိုင်တွယ်ခြင်းနှင့် စွန့်ပစ်ခြင်း စီမံခန့်ခွဲမှု	အပတ်စဉ်	တစ်နှစ်လျှင် (၁,၅၀၀,၀၀၀)

လူထုအကျိုးပြုလုပ်ငန်း (CSR) အစီအစဉ်

Melody Global Company Limited သည် လုပ်သားများ၏ လုပ်ငန်းပိုင်းဆိုင်ရာ သင်တန်း ပို့ချမှုများ၊ အားလပ်ရက်များတွင် ပညာရေးဆိုင်ရာသင်တန်းပို့ချမှုများ၊ လုပ်သားများ၏ ကျန်းမာရေး စောင့်ရှောက်မှုများ၊ ကျန်းမာရေးအသိပညာပေးခြင်းများနှင့် စက်ရုံပတ်ဝန်းကျင်ရှိ စာသင်ကျောင်းများအား အကူအညီ များတွင် ၎င်းတို့၏အကျိုးအမြတ်မှ ၂% အား လူမှုရေး အကျိုးပြုအစီအစဉ်များတွင် အသုံးပြု လှူဒါန်းသွားမည် ဖြစ်ပါသည်။

Melody Global Company Limited ၏ လူထုအကျိုးပြုလုပ်ငန်းများ ဆောင်ရွက်မည့်အစီအစဉ်

စဉ်	အကြောင်းအရာ	လှူဒါန်းမှု ရာခိုင်နှုန်း
၁။	စာသင်ကျောင်းများ	၀.၅%
၂။	သင်တန်းကျောင်းများ	၁%
၃။	ဝန်ထမ်းများ၏ ကျန်းမာရေးစောင့်ရှောက်မှု	၀.၅%

စက်ရုံအတွက် သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ လုပ်ဆောင်ချက်များသည် စက်ရုံသို့ ကွင်းဆင်း လေ့လာခဲ့သော ကျွမ်းကျင်ပညာရှင်များမှ စက်ရုံ၏ ဆောင်ရွက်ချက်များ၊ စက်ရုံဝန်ထမ်းများ၊ နယ်ပယ်ဆိုင်ရာ

အဖွဲ့အစည်းများ၏ အမြင်များနှင့် စက်ရုံမှ သက်ဆိုင်သူများ၏ တိုင်ပင်ဆွေးနွေးအကြံပြုချက်များအပေါ် အခြေခံ၍ ရေးဆွဲပြင်ဆင်ထားပါသည်။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်

စက်ရုံအတွက် သဘာဝ ပတ်ဝန်းကျင်ဆိုင်ရာ လုပ်ဆောင်ချက်များသည် စက်ရုံသို့ ကွင်းဆင်း လေ့လာခဲ့သော ကျွမ်းကျင်ပညာရှင်များမှ စက်ရုံ၏ဆောင်ရွက်ချက်များ၊ စက်ရုံဝန်ထမ်းများ၊ နယ်ပယ်ဆိုင်ရာ အဖွဲ့အစည်းများ၏ အမြင်များနှင့် စက်ရုံမှ သက်ဆိုင်သူများ၏ တိုင်ပင်ဆွေးနွေး အကြံပြုချက်များအပေါ် အခြေခံ၍ ရေးဆွဲပြင်ဆင်ထားပါသည်။ ဖြစ်နိုင်ချေရှိသော ပတ်ဝန်းကျင်ထိခိုက်မှုများအပေါ် မူတည်၍ လိုအပ်သည့် သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု လုပ်ဆောင်ချက်များမှာ အောက်ပါအတိုင်းဖြစ်ပါသည်။

- ၁။ ရည်ရွယ်ချက်
- ၂။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်၏တာဝန်ဝတ္တရားများ
- ၃။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုနှင့်အကောင်အထည်ဖော်ဆောင်ရွက်မှု
- ၄။ ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ်နှင့်အစီရင်ခံစာ
- ၅။ လုပ်ငန်းစွမ်းဆောင်ရည်မြှင့်တင်ခြင်းနှင့်လေ့ကျင်ပညာပေးခြင်း
- ၆။ ပဋိပက္ခများဖြေရှင်းခြင်း
- ၇။ လူမှုအကျိုးတူပူးပေါင်းဆောင်ရွက်ခြင်း

သက်ဆိုင်သူများနှင့်တွေ့ဆုံဆွေးနွေးခြင်း

အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးခြင်းအစီအစဉ်ကို ၂၀၂၄ ခုနှစ်၊ စက်တင်ဘာလ (၁၇) ရက်နေ့တွင် Melody Global Company Limited ၏ အစည်းအဝေးခန်းမ၌ ကျင်းပပြုလုပ်ခဲ့ပါသည်။ အဆိုပါ အခမ်းအနားတွင် လက်ထောက် မန်နေဂျာ ဦးအေးလင်းထွန်းမှ စက်ရုံ၏ ဖွဲ့စည်းပုံနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ လုပ်ဆောင်ထားမှုများကို ရှင်းလင်းတင်ပြခဲ့ပြီး ဒေါ်ဝင်းဇာနည်မောင်မောင်မှ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း (Initial Environmental Examination - IEE) အစီရင်ခံစာ နှင့်ပတ်သက်၍ တက်ရောက်လာသူများအား ရှင်းလင်းတင်ပြခဲ့ပါသည်။ ထို့နောက် တက်ရောက်လာသူများမှ ဝိုင်းဝန်း ဆွေးနွေးအကြံပြုခဲ့ကြပါသည်။ အဆိုပါအခမ်းအနားတွင် တက်ရောက်သူဦးရေ ၁၇ ဦး တက်ရောက်ဆွေးနွေးခဲ့ကြပါသည်။

နိဂုံးနှင့် အကြံပြုချက်

အကျဉ်းချုပ်အားဖြင့် ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်း စည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒ လမ်းညွှန် ချက်များအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာ ဆောင်ရွက်ကျင့်သုံးရန် တာဝန်များကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်တွင် ဖော်ပြရှင်းလင်း တင်ပြထား

ပါသည်။ စီမံကိန်းနှင့် သက်ဆိုင်သူများအား စီမံကိန်းဆိုင်ရာ အကြောင်းအရာများ ရှင်းလင်း တင်ပြခြင်း၊ အကြံပြုချက်များနှင့် ဆွေးနွေးတင်ပြလာသည့် သဘောထား အကြံဉာဏ်များကို ရယူပြီး အစီရင်ခံစာတွင် ဖော်ပြထားပါသည်။

အကြံပြုချက်များအရ-

- ❖ အစီရင်ခံစာတွင် ဖော်ပြထားသည့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် ကတိကဝတ်များကို စီမံကိန်း၏ သက်တမ်းတလျှောက်လုံးတွင် အကောင်အထည်ဖော် ဆောင်ရွက်ရမည်။
- ❖ အစိုင်အခဲနှင့် အရည် စွန့်ပစ်ပစ္စည်းများကို ပဲခူးမြို့နယ် စည်ပင်သာယာရေး၏ စည်းကမ်းများ အတိုင်း စွန့်ပစ်ရမည်။
- ❖ စက်ရုံသည် လေနှင့် ရေများမှတစ်ဆင့် ညစ်ညမ်းမှုအန္တရာယ် ပိုမိုဖြစ်ပေါ်စေနိုင်သော မြေကွက်အလွတ်ပေါ်သို့ ဘျိုလ်လာမှ စွန့်ပစ်ပြာများကို တိုက်ရိုက်စွန့်ပစ်ပုံခြင်းကို ရှောင်ရှားရမည်။
- ❖ အလုပ်သမားများအား သင့်တော်သော သင်တန်းများပေးခြင်း၊ လုပ်ငန်းခွင်အတွင်း တစ်ကိုယ်ရည် ကာကွယ်ရေး ပစ္စည်းများ အသုံးပြုစေခြင်းတို့ကို ဆောင်ရွက်ရမည်။
- ❖ ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်များကို နေ့စဉ်၊ လစဉ်နှင့် နှစ်စဉ် လုပ်ငန်းခွင်အတွင်း လုပ်ဆောင်ရမည်။
- ❖ ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ် မှတ်တမ်းများကို သေချာသိမ်းဆည်း၍ တတိယ အဖွဲ့အစည်းထံ တင်ပြရမည်။
- ❖ ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒ လမ်းညွှန်ချက်များအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာ ဆောင်ရွက်ရမည်။

အချုပ်အားဖြင့်ဆိုသော် စီမံကိန်းအဆိုပြုသူသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာနမှ ဤ ကနဦး ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာကို စိစစ်သုံးသပ်ပြီးနောက် ညွှန်ကြားလာသော အဆိုပြု ချက်များ၊ အကြံပြုချက်များကို လိုက်နာဆောင်ရွက်ရမည်။ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာနမှ ဤကနဦး ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာကို အတည်ပြုပြီးသည်နှင့် စီမံကိန်းအဆိုပြုသူသည် ပတ်ဝန်း ကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှုကို ထိထိရောက်ရောက် အကောင်အထည်ဖော် ဆောင်ရွက်ရမည်။ ပတ်ဝန်းကျင် ဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်တွင် ဖော်ပြထားသည့်အတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုခြင်း အစီရင်ခံစာ (Monitoring Report) ကို ကနဦးပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာ (IEE Report) အတည်ပြု

ပြီးနောက် (၆) လလျှင် တစ်ကြိမ် ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာနသို့ ရေးသားတင်ပြရမည်။ ပြည်ထောင်စု သမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်း စည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒ လမ်းညွှန်ချက်များအတိုင်း လိုက်နာဆောင်ရွက်ရမည်။

CHAPTER 1 EXECUTIVE SUMMARY

Introduction

The proposed factory is the 100% foreign investment by Melody Global Company Limited with an investment amount of US\$ 8.6 million. The proposed factory is located at Plot No. 26/27/28, Industrial Area, Bago Region and the total land area 13.92 Acres (56360.688 square meter). The factory aims to manufacture of Footwears and Outdoor Sports Products under CMP basis. This report describes the findings of the Initial Environmental Examination (IEE) for the Manufacturing of Footwears and Outdoor Sports Products under CMP Basis by Melody Global. Estimated commercial operation will be started in February 8, 2016. The main objective of this report is to identify the major environmental impacts due to implementation of the project along with the effective measures to mitigate the potential adverse impacts.

The term of the Lease shall be 50 years commencing from the date of signing Melody Global Company Limited for proposed project site for 20.05 Acres (16187.44 square meters) of land. The proposed project is initial 50 years and extension is two times of 10 years. The project construction will be carried out with two phases. Phase one was constructed in October 15th ,2013 and will be over in December 22nd , 2015. Total estimated construction period is two years.

Production work will be done with the estimated 431 employees (168 male+ 263 female) for manufacturing of footwears and outdoor sports products at Melody Global. Most people will be employed from local. Both skill and non-skill workers will be employed. It will use automatic machines for production and man powers are used for controlling of machines and quality inspection of the products. The estimated production rate for first year is 1,475,150 pcs of footwears and 1,181,890 pcs of outdoor sports products.

The project approved for the investment endorsement from the Myanmar Investment Commission (MIC) Permit No. 616/2013 on 9th September 2013. As per the recommendation of Environmental Conservation Department (ECD), the said project requires an Initial Environmental Examination (IEE) to meet the environmental assessment according to requirements of Notification No. Bago/SaSaYa (70(a)/2015) in 29th January, 2015. IEE for manufacturing of Footwears and Outdoor Sports Products to be implemented by Melody Global has been started by E Guard Environmental Services Co., Ltd.

Information of Melody Global Company Limited

Investor Name:	Mr. Chu, Sau-Lin
Citizenship:	Chinese
Company ID No.	107958614
Address of Registration office:	No.25, Lane 148, Fuxing South Road, Taipei, Taiwan

Salient feature of the project

Type of Proposed Business:	Manufacturing of Footwears and outdoor sports products under CMP Basis
Type of investment:	100% foreign Investment

Type of Share:	Ordinary Share
Type of land:	Factory Land
Total land area:	13.92 Acres (56360.688 square meter)
Coordinate	17°15'3.19"N and 96°27'34.71"E
Type of building	8 one-story buildings Factory – 32000 sq.meter Boiler – 800 sq.meter Office – 3600 sq.meter Warehouse – 10000 sq.meter Dormitory – 2500 sq.meter
Land lease year:	50 years
Construction period:	Two years
Address:	Plot No. 26/27/28, Industrial Area, Bago Region
Contact person:	U Aye Lin Htun (Assistant Manager)
Mobile:	09-43173478
Email	Adm.melodyglobal@gmail.com

Policy, Law and Institutional Framework

Melody Global Company Limited commits to follow policy, law, rules, procedure, and guidelines described in Chapter 2 (Policy, Legal and Institutional Framework) for environmental prevention and EMP.

Project Information

Melody Global Company Limited's factory is located at latitude 17°15'3.19" North and longitude 96°27'34.71" East, on land plots (26, 27, 28) in the industrial zone area of Bago Region, with a total land area of 13.92 acres. The (271) types of machines and equipment needed for the operation will be imported from China. The raw materials needed for the production of Melody Global Company Limited such as rubber, wool, polyester, zipper, brush, needle, hanger, tag, carton and seal tape will be imported from China and Taiwan. The chemicals required for the operation process are imported from China and Taiwan. The raw materials are well stored in factory warehouse.

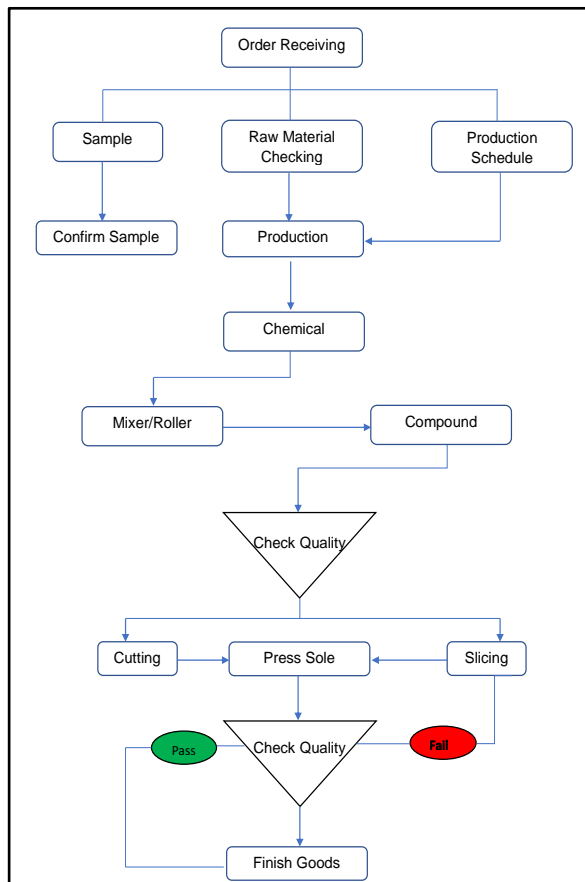


Raw Material Storage

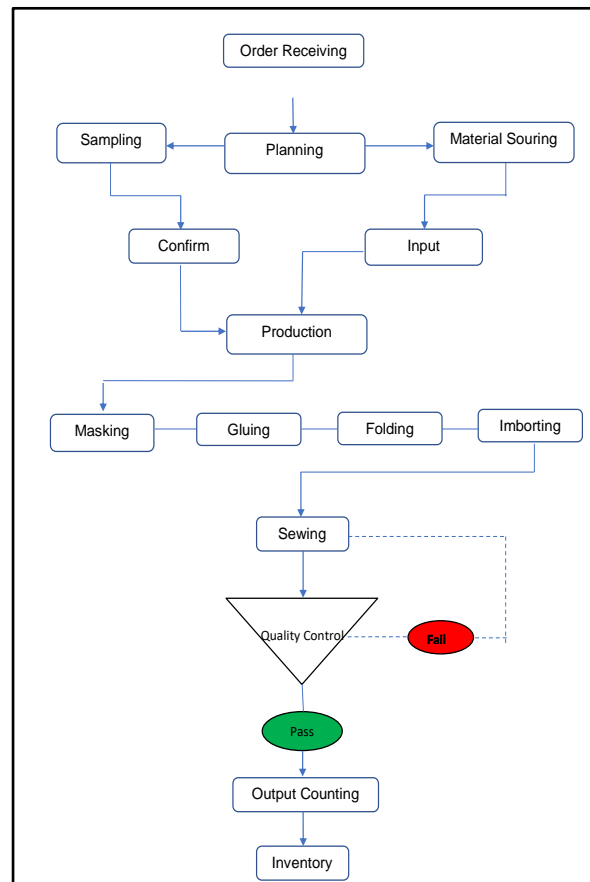
Location for the proposed business and facilities within the facility; restaurant, store room, maintenance room; kitchen etc. are listed separately. The Utilities for proposed factory include electrical power, fuel oil for emergency used generator and water for domestic use. The amount of energy and consumption required for the proposed project is also included. Commercial vehicles and office equipment are bought from local suppliers. Operation process is carried out by automatic machines and human power.

The production process is divided into two sections: the Eva Department and the stitching department. In the Eva Department, EVA (ethylene vinyl acetate resin) is blended with chemicals and fed into a roller machine to create rubber sheets. The resulting rubber sheets are inspected for quality and then cut using a cutting machine. Afterward, they are pressed using a hydraulic press to form the desired sole shape. The edges of the sole sheets are trimmed and adjusted to ensure uniformity, and the final products are obtained. The step-by-step process of sole sheet production is illustrated in the diagram below.

In the stitching department, the first step is to create marks. According to these marks, the parts are cut and molded. The parts are then joined together with glue and stitched. Afterward, labeling is performed. The final step is to assemble the parts together to complete the final product. The step-by-step process of the shoe assembly is illustrated in the diagram below.



Eva Department Process Flow Chart



Stitching Department Process Flow Chart

Production rate of Melody Global Company Limited is produced 1,475,150 pcs of footwears and 1,181,890 pcs of outdoor sports products for first year of operation. It's required of work force (10) foreign technicians and (431) local employees. There is no adverse impact on the environment due to the operation.



Snow Boots



Leather Shoes & Eva Sandal



Sports Shoes & Safety Shoes



Insole

Bounce Board & Tramp Ski

Solid color with sanded, brushed or laminated



EVA sheets with heat embossed and printing

EVA sheets with CNC grooving



EVA sheets with swirl effect



Eva Sheets



Traction Pad



Leash



Boardbags



Final Products

Brief Description of Surrounding Environment

The baseline environmental quality at the Project Site and its immediate surroundings was established by groundwater, wastewater, ambient air quality samples, noise and indoor temperature and humidity measurements at immediate surrounding areas on August 16, 2023. Socio-economic situation information, physical environment information, biological environment information, climate data is quoted from township information officially prescribed by Bago Region.

Item	Parameter
Air quality	(1) Sulfur dioxide (SO ₂), (2) Ozone (O ₃), (3) Nitrogen dioxide (NO ₂), (4) PM ₁₀ , (5) PM _{2.5}
Noise level	Indoor sound level (LAeq)
Ground Water	pH, Turbidity, Total solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese and Zinc



Item	Parameter
Domestic Water	pH, Turbidity, Total solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese
Light intensity	Illumination (lux)

Survey Result in Proposed Project

	Type	Result
Weather Condition	Temperature	36.3 °C
	Humidity	46.4 %
Noise	Sewing department	67.03 dBA
	Eva department	71.87 dBA
Outdoor Air Quality	PM ₁₀	25.45 µg/m ³
	PM _{2.5}	23.27 µg/m ³
	SO ₂	1.32 µg/m ³
	NO ₂	29.77 µg/m ³
	O ₃	6.08 µg/m ³
Light Intensity	Cutting Area	1022 Lux
	Warehouse	312 Lux
	Quality Control	1078 Lux
	Sewing Area	631 Lux
	Packaging	784 Lux
Ground Water Quality	pH	7.2 mg/L
	Turbidity	8 mg/L
	Total Solids	104 mg/L
	Hardness	27 mg/L
	Chloride	2.1 mg/L
	Free Cyanide	<0.01 mg/L
	Arsenic	0.005 mg/L
	Copper	0.02 mg/L
	Iron	0.3 mg/L
	Lead	ND mg/L
	Manganese	<0.2 mg/L
	Zinc	<0.02 mg/L

Wastewater Quality	pH	7.2
	Turbidity	14
	Total Solids	99 mg/L
	Hardness	1 mg/L
	Chloride	100 mg/L
	Free Cyanide	24 mg/L
	Arsenic	5 mg/L
	Copper	12 mg/L
	Iron	25 mg/L
	Lead	0.34 mg/L
	Manganese	<0.2 mg/L

The content of SO₂, O₃, NO₂, PM₁₀ and PM_{2.5} concentration level is within the limit of National Environmental Quality (Emission) Guideline. Noise level result of the Eva department is slightly higher than National Environmental Quality (Emission) Guideline while the Stitching department noise rate is within the NEQEGs. Project's groundwater and domestic water are within the permissible limits of WHO Drinking Water Quality Standard and NEQEGs. According to the drinking water and domestic wastewater analysis results, all parameters are within the limits. For the groundwater analysis, all parameters, except turbidity, are within the acceptable range outlined by the WHO standards. It is believed that the turbidity issue may have been influenced by the timing of the measurements, which were taken during the rainy season when lake algae levels were particularly high. After reviewing the results and consulting with the factory officials, it was determined that the water tank had been thoroughly cleaned, and the water was replaced to ensure continued compliance with quality standards. These corrective actions were taken promptly to maintain water safety.



Environmental Quality Monitoring Map

Potential Environmental Impact and Mitigation Measure

The following methodology have been applied to assess the environmental impacts of the factory mainly on air, water, land, biodiversity, including human beings. Each source of impact had assessed by four parameters, magnitude, duration, extent and probability and each assess point have five scales.

Impact assessment parameters and its scale

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

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

$$\text{Significant Point (SP)} = (\text{Magnitude} + \text{Duration} + \text{Extent}) * \text{Probability}$$

Impact Significance: Based on calculated significant point, impact significance is able to categorize as follows:

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

The project activities may cause impacts on environmental resources, ecological resources, human and waste disposal. The potential impacts will occur in operation and decommissioning phases. The summary of impacts with respect to project activities and mitigation measures are described as below:

Evaluation and Perdition of Significant Impacts and mitigation measure for Operation Phase

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Effect	Mitigation Measure
		M	D	E	P	SP			
Impact on Environmental Resource									
Air Quality	<ul style="list-style-type: none"> Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission from emergency diesel generator and boiler 	3	4	2	3	27	Low	<ul style="list-style-type: none"> Air pollution in atmosphere. Inhaling them can increase the chance you'll have health problems. People with heart or lung disease, older adults and children are at greater risk from air pollution. 	<ul style="list-style-type: none"> To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. The factory uses chimney for generator through which the flue gases are emitted for reducing the impact of stack emission on environment. The factory has planted trees to reduce carbon emission and minimize air pollution
Noise and Vibration	<ul style="list-style-type: none"> Generating noise from the respective production machines such as cutting, stitching/ finishing and packaging Generating noise from operating the boiler and generator 	3	4	2	4	36	Moderate	<ul style="list-style-type: none"> Repeated exposures to loud noise can lead to permanent tinnitus or hearing loss. Loud noise can create physical and psychological stress, reduce productivity, interfere with communication and concentration, and contribute to workplace accidents and injuries by 	<ul style="list-style-type: none"> Enclose and isolate the noise source To use Low noise tools and machinery Maintain and lubricate machinery and equipment To facilities PPE like earmuffs and earpieces for the employees



Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Effect	Mitigation Measure
		M	D	E	P	SP			
								making it difficult to hear warning signals.	
Water Quality	<ul style="list-style-type: none"> Domestic wastewater from sinks, kitchens, toilets and machines washing (The factory does not generate industrial wastewater) 	2	4	2	2	16	Low	<ul style="list-style-type: none"> Domestic wastewater can reach groundwater and surface water via infiltration, leakage or direct discharge. 	<ul style="list-style-type: none"> Ensure that drainage lines and sewage system of factory and the nearest public drainage are watertight and sufficient capacity Regular check and maintain sewerage facility. Clean the factory 's drainage to avoid odor emission and to avoid the block of water flow Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Soil	<ul style="list-style-type: none"> Engine oil leaks, spills at diesel storage and during fuel refueling. 	1	4	1	1	6	Very Low	<ul style="list-style-type: none"> Soil contamination affected by fuel spilling 	<ul style="list-style-type: none"> To handle the leakage and spillage of the diesel, an interception with sand is kept under the tank. The fuel storage area was paved with concrete and hence, contamination due to the oil spillage at this area is insignificant.
Impact on Ecological Resources									
Flora and fauna on terrestrial and aquatic life	<ul style="list-style-type: none"> Operation of the factory 	1	4	1	1	6	Very Low	<ul style="list-style-type: none"> Water, noise and soil contamination due to factory operation 	<ul style="list-style-type: none"> No Mitigation measures because the impact caused by factory operation is insignificant



Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Effect	Mitigation Measure
		M	D	E	P	SP			
Impact on Human									
Fire	<ul style="list-style-type: none"> Electrical installations Faulty equipment and machinery Waste disposed area, raw materials and chemical/fuel storage area 	3	4	2	4	36	Moderate	<ul style="list-style-type: none"> The effect of a fire in the workplace can be devastating in terms of lives lost, injuries, significant damage to property and the environment. 	<ul style="list-style-type: none"> To control all ignition sources To provide fire extinguishers, hose reels and hydrants and install the emergency fire alarms for alerting the workers on the walls of the factory for fire emergency cases To do the regular inspection for existing firefighting equipment and water storage tank for fire frightening To have the clear main entrances and route of the factory in order not to be blocked with materials or machines for fire emergency cases
Occupational health and Safety	<ul style="list-style-type: none"> Accidental cases during factory operation Unloading, mixing, cutting, pressing and packaging activities. 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> The effect of occupational accident can be devastating in terms of lives lost, injuries, significant damage to property and the environment. Change in demographic structure, new diseases form immigrant workers To cause a range of health problems 	<ul style="list-style-type: none"> To provide first aid training, safety training, firefighting training or other essential training for machinery handling for emergency cases of workers To provide Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Effect	Mitigation Measure
		M	D	E	P	SP			
								<p>ranging from stress, poor concentration, productivity losses in the workplace, and communication difficulties and fatigue from lack of sleep, to more serious issues</p> <ul style="list-style-type: none"> To report and address hazards immediately and educate the employees about potential hazards To avoid any direct skin contact with the diesel oil and chemicals To manage the drainage system, maximum allowable noise and light intensity values for safe working 	
Waste Generation Impact									
Solid Waste	<ul style="list-style-type: none"> Reusable waste like residual pieces of fabric scraps from the production lines and packaging materials Non-reusable waste from kitchen, dormitory and office. Fly and Bottom Ash 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> Surrounding environmental pollution and soil contamination 	<ul style="list-style-type: none"> All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area To sell the reusable waste to the local waste buyers To improve cutting efficiency and reduce cut fabric wastage by using automated cutting machines To reuse the scraps of rubber sheets as the raw material by milling to the thick liquid To dispose non-usable wastes by connecting with MJT Co., Ltd. (waste collection service)



Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Effect	Mitigation Measure
		M	D	E	P	SP			
Liquid Waste	<ul style="list-style-type: none"> Septic system and sewage. Domestic liquid waste disposal from office, kitchen sinks and dormitory. 	2	4	2	2	16	Low	<ul style="list-style-type: none"> Contamination of soil, surface water and ground water 	<ul style="list-style-type: none"> Regular inspection and cleaning oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Waste	<ul style="list-style-type: none"> Hazardous waste of chemical in production process Used oil and lubricant discharged from the maintenance of vehicles and machines. Small amounts of hazardous waste such as fluorescent tube lights, batteries, machine oil containers, etc. 	3	4	1	3	24	Low	<ul style="list-style-type: none"> Water pollution and soil contamination Physical injuries can be caused 	<ul style="list-style-type: none"> Proper inspection and maintenance in storage of hazardous waste. Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. The empty chemical containers will hand over to suppliers for recycle or appropriate disposal The hazardous wastes should be stored in a locked area and are disposed by connecting with waste collection service
Natural Disaster (Earthquakes, Floods, landsides and cyclone Explosions, Equipment malfunctioning,	<ul style="list-style-type: none"> Natural disaster due to heavy raining, flooding from river Accidental cases cause by operating machines. 	4	4	3	3	33	Moderate	<ul style="list-style-type: none"> Accident in workplace (physical injuries or even death) can occur during operation. 	<ul style="list-style-type: none"> Preserve relevant records and equipment for the subsequent inquiry into the cause and circumstances of the emergency

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Effect	Mitigation Measure
		M	D	E	P	SP			
mechanical and structural failures)									

Evaluation and Perdition of Significant Impacts and mitigation measure for Decommissioning Phase

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	S			
Air	<ul style="list-style-type: none"> Demolish of buildings and related materials Transportation of demolished materials 	3	1	2	3	18	Low	Emissions of particulate matters and carbon dioxide gases into the air	<ul style="list-style-type: none"> Spray water twice a day Cover mesh trap around the decommission area Install shading net about 2 meters above temporary fence of decommission area Carry broken material with cover by canvas.
Water pollution	<ul style="list-style-type: none"> Sewage form decommissioning workers Demolition machinery equipment 	2	1	1	3	12	Very Low	Contamination of surface water and ground water	<ul style="list-style-type: none"> Ensure careful management of construction debris and materials to prevent contamination of runoff. Install sediment barriers and silt fences around the decommissioned area to control water flow and reduce sedimentation into nearby water bodies. Monitor water used for dust control or cleaning to ensure it does not discharge contaminants into the environment.

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	S			
									<ul style="list-style-type: none"> • Properly store and dispose of chemicals and hazardous materials to prevent spills or leaks that could impact water quality. • Carefully demolish septic tanks in a controlled manner to prevent any release of contaminants into the environment. • Empty and clean septic tanks prior to demolition to prevent contamination during the process.
Noise and Vibration	<ul style="list-style-type: none"> • Decommission activities • Transportation of demolished materials 	3	1	2	3	18	Low	Noise pollution to the surrounding	<ul style="list-style-type: none"> • Carry out the activities during day time. • Maintain the machines and vehicles to reduce noise pollution. • Provide the ear plugs to the workers.
Solid Waste	Demolished debris such as bricks, concrete materials	3	1	2	4	24	Low	Dumping to the surrounding environment	Recyclable materials and dispose to the define areas.
Hazardous waste	Chemical/ Fuel Containers	3	1	2	3	18	Low	Spillage of lubricant	Recyclable the diesel containers and manage the disposal way of hazardous waste by connecting with waste collection service
Occupational Health and Safety	<ul style="list-style-type: none"> • Decommissioning activities • Transportation of demolished materials 	3	1	1	3	15	Low	Injuries and accidents	<ul style="list-style-type: none"> • Provide protective fencing or demarcation with tape at the boundaries of dangerous / hazardous zone and the appropriate warning signs, marking and safety signs and installation of the lost time injury notice board. • Clean up excessive waste debris and liquid spills regularly.

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	S			
									<ul style="list-style-type: none"> Use the third-party expert assisted by trained personnel to identify and remove hazardous materials.

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

Environmental Management Action & Monitoring Plan

The proposed project of environmental management plan, which need to made the Environmental Management System (EMS). In that plan, it includes not only reducing to the environmental and social-economic impact but also includes the environmental management plan and the monitoring plan. In this EMP to implement the health, safety and occupational for the industry, they need to create a team and to must be implemented that. The EMP for Melody Global Company Limited has been prepared to address potential issues based upon discussion with factory management, workers, local community's view, stakeholder consultation and from the site visit of experts. The EMP is additional to and compliments the factory's safety management system. The following environmental issues that require environmental management plans based upon the potential impacts of activities by for Melody Global Company Limited are as follows:

1. Air pollution/Dust Management Plan
 - The Factory has planted Trees to reduce the carbon and minimize the air pollution
 - Workers are provided mask during working in any dusty area and handling the hazardous materials
 - 1,600,000 kyat per year
2. Noise Management
 - Building noise insulated generator room
 - Provide sufficient personal protective equipment (PPE) at the work place
 - All the related personal will be provided proper training about the relevant issues and ensure PPE wear during working in noisy area.
 - 800,000 kyats per year
3. Solid waste Management Plan
 - The solid wastes are stored properly and separately in a certain in proper manner
 - The daily domestic waste of workers hands over to YCDC waste collector to collect every day
 - All related personal is provided proper training about the relevant issues.
 - 50,000 kyats per month
4. Wastewater Management Plan
 - Ensure that drainage lines and sewage system of factory and the nearest public drainage are watertight and sufficient capacity
 - Regular check and maintain sewerage facility
 - Clean the Factory's drainage to avoid odor emission and to avoid the block of water flow
 - 600,000 kyats per year
5. Energy Consumption Management Plan
 - Used of energy saving devices must be installed
 - Ensure that good housekeeping measures such as turning off equipment and lights when not in use



- 1,000,000 kyats per year
6. Water Consumption Management Plan
- Install water meter for internal control of water consumption
 - All staff trains and makes aware conservation practices and proper methods of water use must be place in toilets and other areas of water consumption
 - Trees plantation surrounding the factory
 - 500,000 kyats per year
7. Emergency Response Plan
- Provision and inspection of firefighting equipment and fire hydrant system in all the sections
 - A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers
 - Workers are informed about what to do in earthquake and physics hazards. A medical team has been prepared for primary treatment (First Aid)
 - Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management
 - 1,500,000 Kyats per year
8. Fire Management Plan
- Must be provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases.
 - Must be indicated the emergency exit and assembly point in public area.
 - Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for firefighting.
 - The emergency fire alarms are installed at the factory for alerting the workers in case of fire.
 - The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
 - 1,200,000 Kyats per year
9. Occupational Safety and Health Management Plan
- First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers.
 - Personal Protective Equipment (PPE) are provided for each department.
 - Manage the drainage systems of the factory to prevent health risk of the workers.
 - 1,200,000 Kyats per year
10. Hazardous Waste Management Plan
- Proper inspection and maintenance in storage of hazardous waste.

- Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements.
- The hazardous wastes are transported by specially licensed carriers and disposed in a licensed service
- 1,000,000 Kyats per year

11. Chemical Storage, Handling and Disposal Management Plan

- Chemicals are stored in well-ventilated designated areas, with hazard signs and directional signage displayed.
- Chemicals are stored according to their type to prevent reactions or accidents.
- Employees handling chemicals are required to wear personal protective equipment (PPE) such as gloves and masks to ensure safety.
- Chemical waste is separated and disposed of according to their properties and in compliance with relevant regulations, using licensed disposal organizations.
- Handling and disposal of chemicals are carried out in accordance with environmental safety standards, with regular inspections to ensure compliance.
- 1,500,000 Kyats per year

The Environmental Management Plan (EMP) formulated with the anticipated impacts, mitigation measures, management and monitoring plans during all phases are implemented. Melody Global Company Limited has organized Environmental Management Team to accomplish these plans and to review EMP regularly for improvements and modifications. Ambient air quality, noise, water quality, sewage and solid waste disposal are monitored by Team Leaders of Committee. The EMoP cell members responsible may conduct daily, weekly or monthly general inspections of the project area and facilities. The factory submits monitoring report to the Ministry not less frequently than every (6) months.

No	Item	Frequency/Times	Cost (MMK)
Management and Monitoring Plan			
1	Air Quality	biannually	1,600,000 per year
2	Water Quality (Ground Water)	biannually	600,000 per year
3	Noise level	biannually	800,000 per year
4	Odor Intensity	biannually	1,000,000 per year
5	Light Intensity	biannually	400,000 per year
6	Solid Waste (Recycle and Non-recycle)	weekly	600,000 per year
7	Solid Waste (Fly and Bottom Ash)	biannually	1,000,000 per year
8	Liquid Waste (Domestic Wastewater)	biannually	600,000 per year

No	Item	Frequency/Times	Cost (MMK)
9	Hazardous Waste	monthly	1,000,000 per year
10	Occupational Health and Safety	weekly	1,200,000 per year
11	Fire Hazardous	monthly	1,200,000 per year
12	Energy Management	annually	1,000,000 per year
13	Water Consumption Management	Daily	500,000 per year
14	Emergency Response and Management	weekly	1,500,000 per year
15	Chemical Storage, Handling and Disposal Management	weekly	1,500,000 per year

CSR plan of Melody Global Company Limited

The project proponent has performed Corporate Social Responsibility (CSR) plan and Emergency Preparedness for the benefits of residents and local community. Melody Global Company Limited will contribute 2% of our Net Profit to social welfare activities that will help society and country of Myanmar.

No	Particle	Contribution
1	Public school	0.5%
2	Non-profit training	1
3	Employee healthcare	0.5%

The environmental management action for the factory has been prepared to address potential issues based upon discussion with factory management, workers, local community's view, stakeholder consultation and from the site visit of experts. The EMP is additional to and compliments the factory's safety management system.

Public Consultation

Public consultation during preparation of IEE report was conducted on September 17, 2024, following the EIA procedure. The project's stakeholders in this category are key officials or representatives of the regional and local authorities who have direct responsibilities for the administration of the IEE process for environmental and social clearance and issuing operation permits for proposed development projects. Public consultation carried out after the presentation on the project, followed by questions, answers and discussion.

Conclusion

In Conclusion, the environmental management practices, procedures and responsibilities are defined here in to get full compliance with the existing environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar. All the feed backs, desired and needs of local public recorded in public consultation meetings are well addressed and incorporated in formulation of EMP. It has been figured out that, the proposed shoes factory is going to generate local employment opportunities and enhance capabilities and working skills of employees. Consequently, their socio-economic standard is expected to be

improved and undertaking corporate social responsibilities (CSR) as recommended. The study further concluded that positive impacts will be of immense benefit to the local community and national development as well.

This is recommended that;

- All appropriate environmental management measures detailed in this report, along with any other environmental management commitments, have to be implemented throughout the entire life of the factory.
- Solid waste, liquid waste, and hazardous waste have to be disposed of in accordance with the Bago Municipal rules and regulations.
- The factory has to avoid the practice of dumping fly ash or bottom ash directly onto open land, as this increases the risk of contamination through wind and water runoff.
- Workers have to be provided with proper training, and it should be ensured that workers use PPE in the factory operation areas.
- Daily, monthly, and annual action plans have to be formulated based on this IEE and implemented at the operational level.
- Full records of environmental management activities have to be kept and presented for annual independent third-party environmental audits.
- The factory has to abide by the environmental policies, laws, rules, and regulations of the Republic of the Union of Myanmar.

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

CHAPTER 2 **PROJECT DESCRIPTION**

2.1. **LOCATION OF PROPOSED PROJECT**

The proposed project factory is located at Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar. The proposed factory locates at the coordinates of North Latitude 17°15'3.19"N and East Longitude 96°27' 34.71"E. Location of the proposed project area were shown i.



Figure 2-2 1km Adjacent Location Map of the project

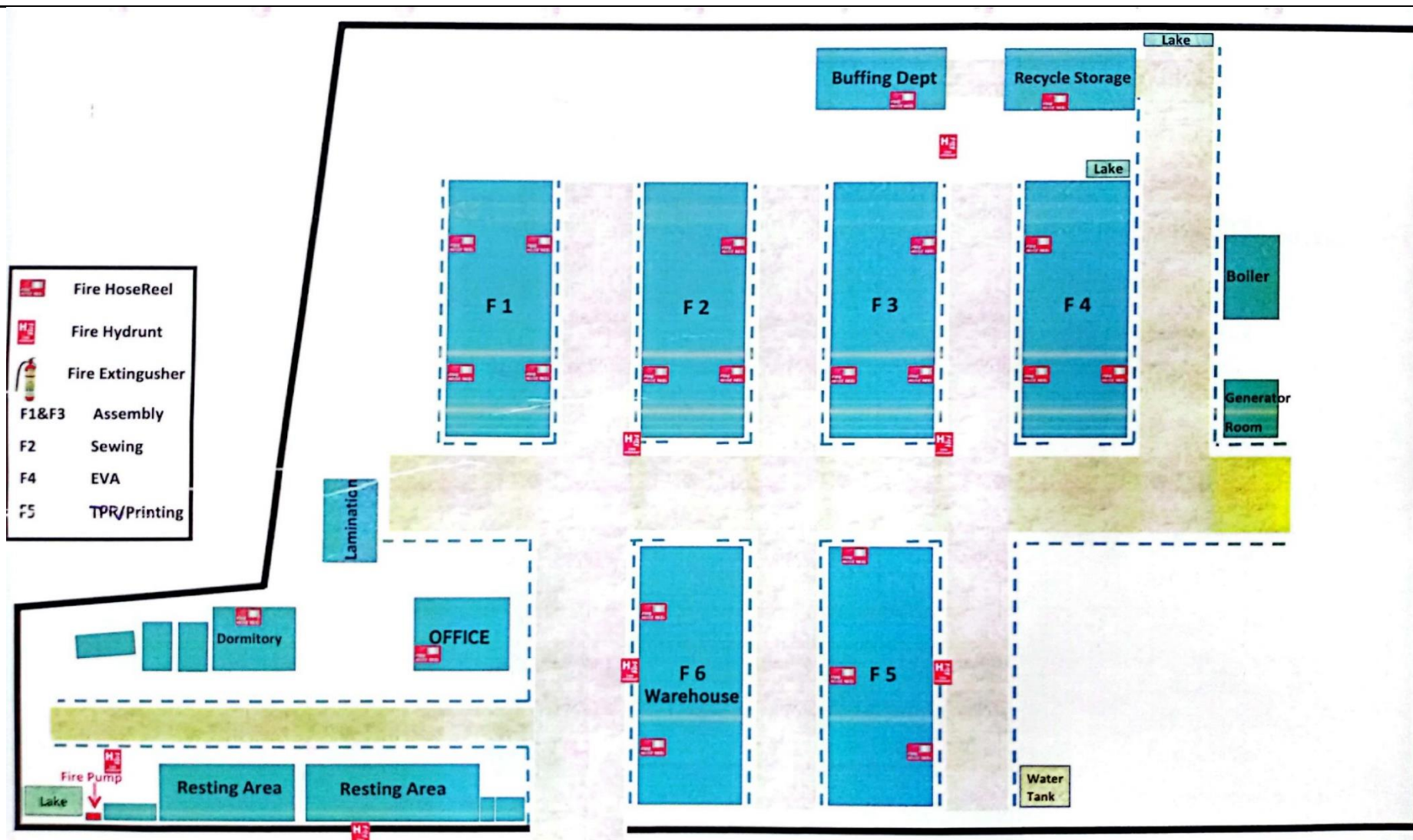


Figure 2-3 Factory Layout Plan

2.2. PROJECT DEVELOPMENT AND IMPLEMENTATION TIME SCHEDULES

The proposed factory is the 100% foreign investment by Melody Global with an investment amount of US\$ 8.6 million. The proposed factory is located at Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar. There are eight one-story buildings in the factory compound. The factory aims to manufacture Footwears and Outdoor Sports Products under CMP Basis.

Table 2-1 Details of Melody Global Company Limited

Type of land	Bago Industrial Zone
Total land area	13.92 acres
Investment period	50 years + extension: two times of 10 years
Construction start date	October 15, 2013
Construction end date	December 22, 2015
Commercial operation start date	8 February 2018

2.3. CONSTRUCTION PHASE

The Engineering and Procurement phase for the construction of the Melody Global factory was established on October 15, 2013, and ended on December 22, 2015. The construction and civil works included land filling, piling, and foundation work. A total of eight one-story buildings were constructed. The total estimated construction period was two years. During a site survey on August 16, 2023, it was observed that the factory buildings were already completed.

2.4. OPERATION PHASE

The Commencement date of commercial operation is February 8th, 2016. The production will be worked in the eight workshop buildings. Production work will be done with the estimated 431 employees for manufacturing of Footwears and Outdoor Sports Products under CMP Basis at Melody Global Company Limited. Most people will be employed from local. Both skill and non-skill workers will be employed. The estimated annual production rate for year one is 1,475,150 footwear pairs and 1,181,890 sportswear products. In operation phase, major utilizes for proposed factory include power supply, fuel oil for emergency used generators, and water supply for domestic use and emergency response. The factory has a boiler installed. In operation phase, water is not necessary for entire processes. Electric power will be used for production machines and lightning.

2.4.1. Utilities

2.4.1.1. Raw Material

The primary materials used in manufacturing of footwears and outdoor sports accessories consist of 158 items, as per the order, and are imported from the People's Republic of China and Taiwan. These raw materials are selected with a focus on sustainability, ensuring that they have no adverse environmental impact. Additionally, the safety and well-being of workers are prioritized, with appropriate Personal Protective Equipment (PPE) provided to all personnel involved in the production process. Annual raw

material requires for production process and raw material requirement from year one to 30 year is expressed in **Appendix D**.





Figure 2-4 Raw Material storage Photos

2.4.1.2. Machinery and equipment

Automation systems for fully automatic and semiautomatic systems control of each process machine or complete processing line will be implemented. Lists of machinery and equipment required for the proposed factory are listed in **Appendix D**.

2.4.1.3. Chemicals List

The chemicals for the factory operation process are imported from China and Taiwan. According to the MIC proposal, list of chemicals required for the proposed factory are described in Table 2-2. At the present time, during the field study, only the chemicals with yellow stripes are being used in the factory's Eva Department. The company ensures that chemicals are stored in the separate room based on their type and quantity, with secure storage areas in Figure 2-5. Material Safety Data Sheets (MSDS) (**Appendix E**) are made available for all chemicals to provide essential information about their hazards and safe handling procedures.

Table 2-2 Chemicals lists

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5
			Qty	Qty	Qty	Qty	Qty
1	EVA	kg	160,000	170,000	187,000	205,700	226,270
2	PE	kg	140,000	150,000	165,000	181,500	199,650
3	EPDM Rubber	kg	6,000	6,500	7,150	7,865	8,652
4	Stearic Acid	kg	3,000	3,500	3,850	4,235	4,659
5	69 Titanium Dioxide	kg	1,000	1,500	1,650	1,815	1,997
6	Rubber Color Masterbatch	kg	100	150	165	182	200
7	EVA Color Masterbatch	kg	10,000	15,000	16,500	18,150	19,965
8	Disperse Dyes	kg	100	150	165	182	200

9	BR/SBR	kg	30,000	35,000	38,500	42,350	46,585
10	Natural Rubber	kg	6,000	7,000	7,700	8,470	9,317
11	High Temperature Foaming Agent	kg	24,000	25,000	27,500	30,250	33,275
12	Cryogenic Foaming Agent	kg	600	700	770	847	932
13	Auxiliary	kg	600	700	770	847	932
14	Rubber Zinc Oxide	kg	600	700	770	847	932
15	EVA Zinc Oxide	kg	8,000	9,000	9,900	10,890	11,979
16	Bridging Agent	kg	6,000	6,500	7,150	7,865	8,652
17	White Carbon	kg	20,000	25,000	27,500	30,250	33,275
18	Calcium Carbonate	kg	80,000	90,000	99,000	108,900	119,790
19	Barium Sulfate	kg	80,000	90,000	99,000	108,900	119,790
20	Dispersing Agent	kg	100	150	165	182	200
21	Rubber Powder	kg	15,000	16,000	17,600	19,360	21,296
22	Rubber Accelerator	kg	600	700	770	847	932
23	Mold Release Agent	tub	100	200	220	242	266
24	Surface Treating Agent	kg	3,600	3,700	4,070	4,477	4,925
25	Cleaning Naphtha	kg	1,900	2,000	2,200	2,420	2,662
26	Quick- Acting Binder	kg	2,750	2,850	3,135	3,449	3,793
27	Super Glue	kg	450	550	605	666	732
28	Foam Glue	kg	500	600	660	726	799
29	Viscosity Increaser	kg	250	350	385	424	466
30	Mould Proof Agent	kg	260	360	396	436	479
31	Stiffening Agent	jar	500	600	660	726	799
32	Natural Latex	ton	5	10	11	12	13
33	Anti Water-Sprinkling	kg	3,000	4,000	4,400	4,840	5,324
34	Glue	kg	50,000	60,000	66,000	72,600	79,860
35	Dry Water Ink	kg	3,000	3,500	3,850	4,235	4,659
36	PVC Material	kg	100,000	120,000	132,000	145,200	159,720
37	TPR Material	kg	100,000	120,000	132,000	145,200	159,720
38	PVC Glue	kg	100,000	120,000	132,000	145,200	159,720
39	PVC Treating Agent	kg	500	600	660	726	799
40	TPU Material	kg	50,000	55,000	60,500	66,550	73,205
41	Polypropylene Rubber	kg	8,000	8,500	9,350	10,285	11,314
42	TPE Rubber	kg	8,000	8,500	9,350	10,285	11,314

Sr.	Specification	No of Employee		
		Year 4	Year 5-10	Year 10-20
4.	QC staff	7	8	8
5.	Driver	3	3	3
6.	Security	5	5	5
7.	Mechanic	3	3	3
8.	Electric	3	3	3
9.	Unskilled worker	1800	2000	2000
Indirect Labour				
1.	Warehouse supervisor	2	2	2
2.	Planning supervisor	6	6	6
3.	Planning staff	6	6	6
4.	Production supervisor	6	6	6
Sub Total		1853	2054	2054

2.4.1.5. Water Supply System and Water Usage

The project was using groundwater for drinking water, domestic use and firefighting. The factory has three tube wells 400ft deep: one of which for firefighting and two of which for drinking and domestic purposes. The groundwater stores in the 7 storage tanks. One ground tank is for drinking and six overhead tanks for production process. One ground tank with capacity of 17,441 gallons (20ft×20ft×7ft) and six overhead tanks with capacity of 4,665 gallons (8ft×4ft×3.9ft×6) for domestic use. Firefighting water storage tank is with capacity of 79,096 gallons (20m×10m×1.3m/2.3m) for extinguishing fires. (See in Figure 2-6).

Currently 431 employees are at day shift workers (7:30 am to 4:30 pm). Based on world average, the average daily domestic demands in commercial/industrial settings range between 20 gallons per day per employee. Since the factory has a maximum of 431 workers, factory water needs ranged from 30,900 gallons per day.

The factory has two separated water distribution systems comprising domestic use system and fire water system. Fire water distribute via main type to distribute water for fire-fighting equipment such as, sprinkler system, fire hose within the factory by firewater pump with capacity of 5.0 m³ per hour. On-site water treatment plant will be constructed to treat groundwater to ensure the water quality guideline values. Treated water pumps to be stored in the overhead tanks with 6,000 gallons on the water tower then water distribute to the factory operation area via pipes by gravity.





Figure 2-6 Water source and usage photo

2.4.1.6. Electricity and Fuel Requirement

Melody Global Company Limited will be proposed the zone power committee to utilize 11/0.4KV with one-unit of 1000 KVA transformer. If normal electricity supply could not provide for the proposed project, 2 units of 437 kVA generators are kept as the emergency generator.

Required petrol and diesel for vehicles and generator are stored in fuel storage area and it holds about 2500 gallons. Fuel requirement is about 300 gallons per week. Fuel consumption depends on the availability of electricity. To handle the leakage and spillage of the diesel, an interception with sand is kept under the tank.

Table 2-4 Electricity Usage for 2022-2023

	Unit for 2022	Unit for 2023
Jan	471	37620
Feb	345	42240
Mar	171	54450
Apr	211	29700
May	350	62700
Jun	292	58080
Jul	299	48840
Aug	320	52470
Sep	162	35310
Oct	179	43230
Nov	100	-
Dec	144	-
Total	2057	330330



Figure 2-7 Transformer and Generator Photos



Figure 2-8 Fuel storage area

2.4.1.7. Steam Boiler

The Steamed boiler (4 ton per hour of steam capacity) is used in ironing process for daily and used of coal fuel for steam boiler. According to the Coal Carriage Permit of Magway Region Government in **Appendix**, coal was brought from ThanPuYarGaing, MinBu(SaGu) township, Magway’s MinBu district. Along the road, the coal is covered with rain clothes to prevent spillage. These are stored properly in boiler room area. The steam boiler has fly ash filter and boiler chimney high is about 80 ft. The factory has the fly ash collecting system to prevent the fly ash dispersion. The ash from the boiler will be collected separately in the compound and spray water lightly not to spread the ash. General information of proposed boiler information is mentioned in below Table 2-5.

Table 2-5 Utilities of steam boiler

Description	Process
Coal usage per day	700 kg (0.7 ton)
Water consumption per hour	0.47 m ³ /hr
Ash release per day	75 kg/day
Chimney Height	80 ft

Emission Gas	NO _x , CO ₂ , SO ₂
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Steam Boiler **Emission Gas Area**



Coal Fuel



Bottom Ash **Fly Ash**

Figure 2-9 Steam boiler Usage of Melody Global Co., Ltd.

2.4.2. Production Process

2.4.2.1. Production Process for Stitching department

The first stage in the stitching process is the cutting and for that, pattern making is the base. Once the marker is made, pattern pieces must be cut out of the specified fabric. The process of sewing involves fastening of fabrics, leather, button or similar other flexible materials with the help of needle and threads. Stitching is the process of passing threaded needle in and out of a material to make a specific design pattern.

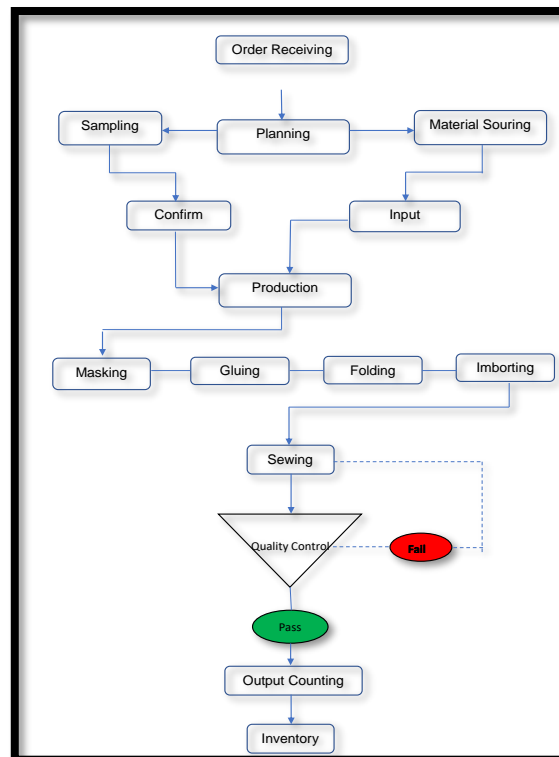


Figure 2-10 **Stitching Department Process Flow Chart**



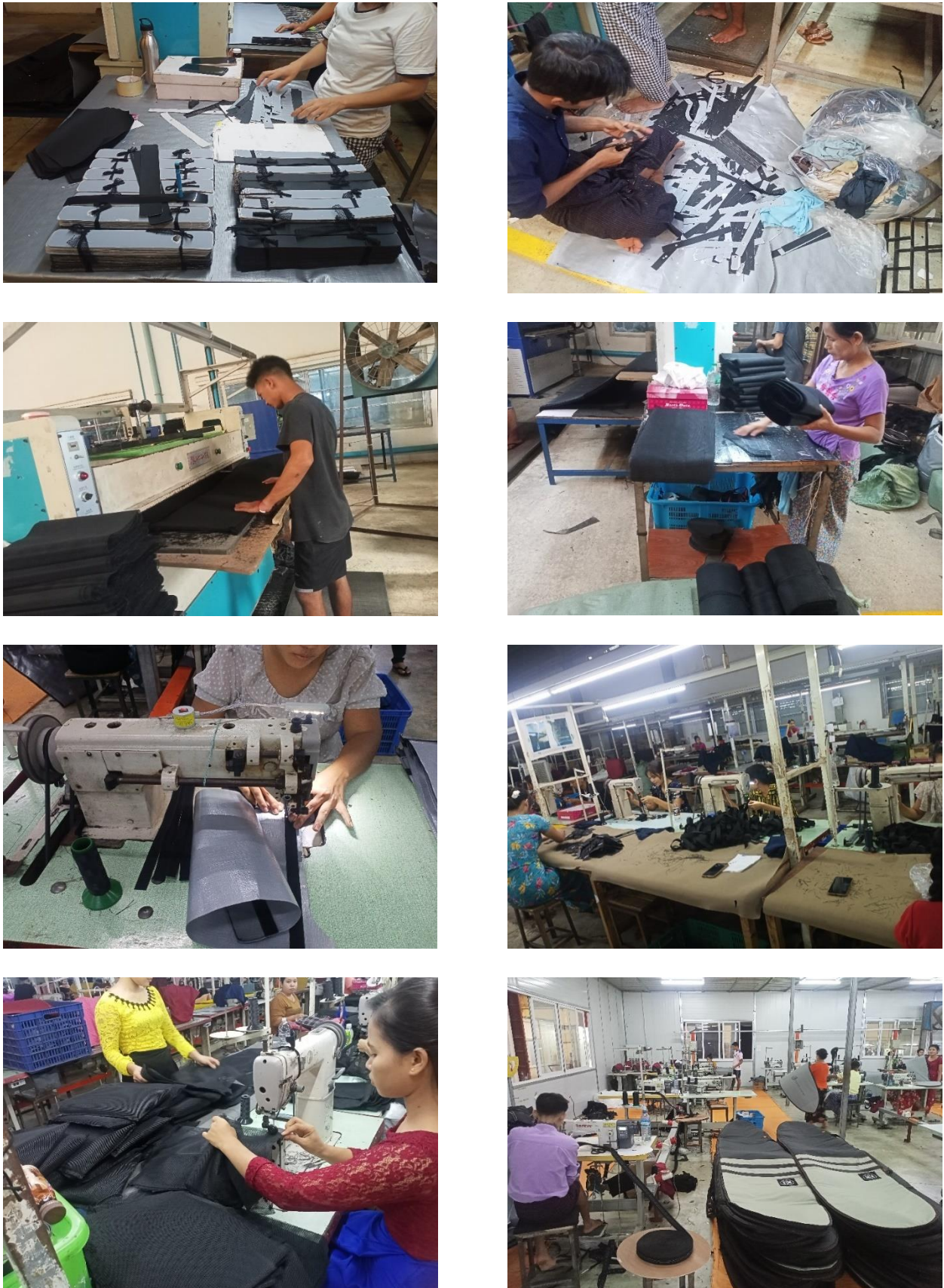


Figure 2-11 Production Process of Stitching Department

2.4.2.2. Production Process for EVA department

In an EVA sole manufacturing process, an EVA is mixed with a foaming agent, and the mixture is then squeezed into strips. The EVA material strips are then placed in a hot press and subjected to a foaming process. After foaming, the foamed EVA strips are placed in a water-cooling trough for cooling. After cooling, the foamed EVA strips are cut and trimmed, or sometimes, some pieces of trimmed EVA pieces are adhered together. After passing through a grinding process, the EVA strips thus obtained are placed in a hydraulic machine for form setting.

The insole is stitched to the sides of the upper. Stiffening agents are then added to the heel region and toe box, and an insole board is inserted. The completed upper is heated and fitted around a last, a plastic mold that forms the final shape of the shoe. An automatic lasting machine then pulls the upper down over the last. Finally, a cement nozzle applies cement between the upper and insole board, and the machine presses the two pieces together to bond them. The upper now has the exact shape of the finished shoe.

Pre-stamped and cutout forms of the midsole and outsole or wedge are layered and cemented to the upper. First, the outsole and midsole are aligned and bonded together. The outsole and midsole are aligned with the upper and placed over a heater to reactivate the cement. As the cement cools, the upper and bottom are joined. (Note: Glues and cement used in operation process will not harm to environment and workers. PPE are provided for workers in sole processing sections to prevent the smell of glues.)

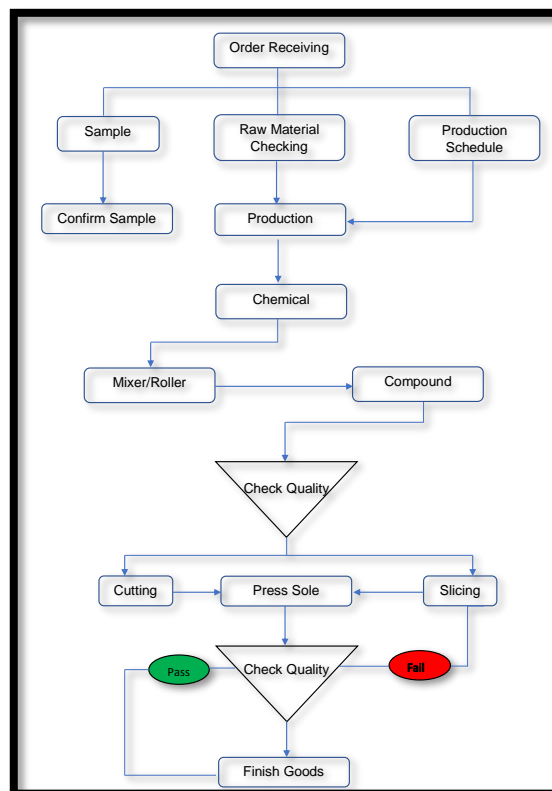


Figure 2-12 Eva Department Process Flow Chart



Figure 2-13 Production Process of Eva Department

2.4.2.3. Final Products Quality Checking and Packaging

The product is complete, an inspector at the factory checks for defects such as poor lasting, incomplete cement bonding, and stitching errors. Quality Control (QC) checks for any error. Quality control was done by manually. The QC passed units are sent to packing as a final production process. Labeling, tag attaching, folding, primary packaging, secondary packaging, final packaging, metal detecting and final inspection are done as per buyer requirement. After inspection by buyers' representatives/inspectors the cartons containing manufactured shoes are delivered and export to buyer. Packing process was done manually by manpower.



Quality inspection



Packing process



Final Products Storage

Figure 2-14 Final QC and Packing photos of Melody Global factory

2.4.3. Products

The products will produce by footwears and outdoor sport products and will be exported to USA and Japan. Estimated annual production rates are expressed in Table 2-6.

Table 2-6 Annual Production Rate

No	Particular	Unit	Year- 1	Year- 2	Year- 3	Year- 4	Year- 5	Year- 6
Shoes Production								
1.	Boots	Pair	575000	632500	664125	796950	860706	903741
2.	Sandals	Pair	448500	493350	542685	651222	703320	738486
3.	Men's shoes	Pair	224250	246675	271343	325611	351660	369243
4.	Ladies Shoes	Pair	179400	197340	217074	260489	281328	295394
5.	Insole	Pair	40000	44000	48400	58080	62726	65863
6.	Semi Products	Pair	8000	8800	9680	11616	12545	13173
Sub Total			1,475,150	1,622,665	1,753,307	2,103,968	2,272,285	2,385,899
Outdoor Sports Production								
1.	Traction Pad	Piece	420469	420469	525586	604424	652778	678889
2.	SUP Pad	Piece	7763	7763	9703	11158	12051	12533
3.	EVA sheets	Piece	13455	13455	16819	19342	20889	21725
4.	Leashes	Piece	336375	336375	420469	483539	522222	543111
5.	Stomp pad	Piece	134550	134550	168188	193416	208889	217245
6.	Snowboarding Accessory	Piece	33638	33638	42047	48354	52222	54311
7.	Roof Surf Rack	Piece	8407	8407	10508	12084	13051	13573
8.	Board Bag	Piece	5175	5175	6469	7439	8034	8356

No	Particular	Unit	Year- 1	Year- 2	Year- 3	Year- 4	Year- 5	Year- 6
9.	Board	Piece	138	138	173	199	215	223
10.	Knee Pad	pair	100913	100913	126141	145062	156667	162934
11.	Elbow Pad	pair	3364	3364	4205	4836	5223	5432
12.	Bounce Board	Piece	8395	8395	10494	12068	13034	13555
13.	Gloves	pair	46000	46000	57500	66125	71415	74272
14.	Socks	pair	57500	57500	71875	82656	89269	92840
15.	Semi Products	Piece	5750	5750	7188	8266	8927	9285
Sub Total			1,181,890	1,181,890	1,477,365	1,698,970	1,834,887	1,908,283



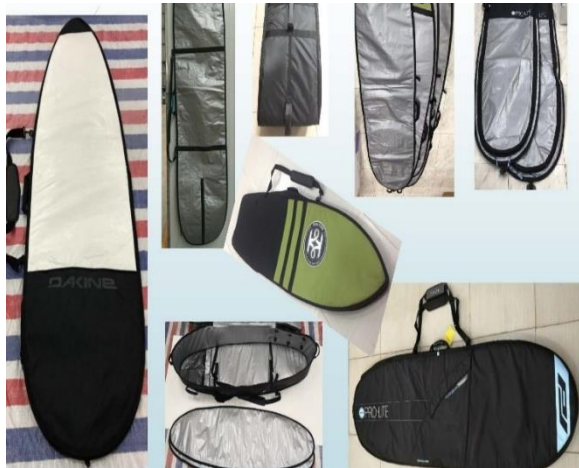
Snow Boots



Leather Shoes & Eva Sandal



Traction Pad **Leash**



Boardbags

Figure 2-15 Product Photos

2.4.4. Facilities

2.4.4.1. Fire hazards protect facility

450 Fire extinguishers (3 kg), 25 fire hose reels and 7 fire hydrants will be installed in the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. The fire extinguishers will be placed according to the instructions of Myanmar Fire Services Department. In case of fire emergency, water storage tank for firefighting is also constructed with the capacity of 79,000 gallons at the proposed area. The emergency contact numbers of township and district fire services department must be printed and tagged at easily visible places for fire emergency cases. The emergency fire alarms will be installed at the factory for alerting the workers in case of fire. The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases. In addition, the project proponent will plan to provide trainings on firefighting for the workers by a professional or otherwise by sending to training courses. The electric lines will be checked by the specialist to prevent fire and electric shocks.

2.4.4.1.1 Fire fighting

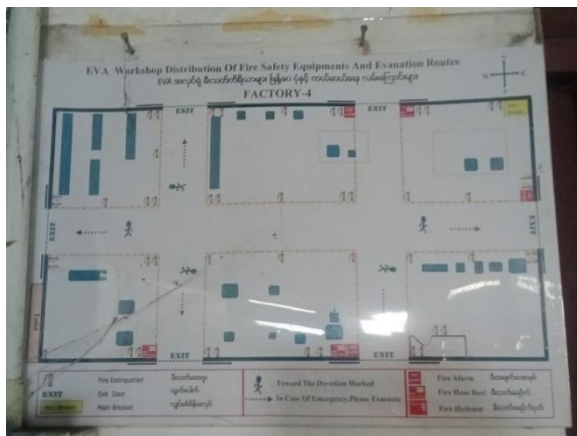
This project buildings apply the refractory materials and its wall, glider, pole, roof is all inflammable. The connection of the electricity complies with the requirements and regulations of the departments concerned of government. The specific measures as follow

- a) Firefighting spacing: among the buildings, reserve enough space as the fireproof isolation belt and fire engine access.
- b) Water supply: design the branch water supply system along the fire engine access, connect the firefighting water supply water supply net with the factory's, the fire hydrants out of buildings and structures, the water flow should fulfill water supply requirements.

2.4.4.1.2 Firefighting electricity supply

Fire power equipment according to level 2 load power supply and using a separate power supply circuit of, have clearly marked, fire protection tube wear measures to ensure that the fire electricity, fire accident lighting and the evacuation of indication for power supply time not less than 40 minutes. Important parts such as control enter room set automatic fire alarm device. Water storage tank from Figure 2-16 is used only for extinguishing fires and its capacity is 79,096 gallons.





EVA Workshop Distribution of Fire Safety Equipment Assembly Workshop Distribution of Fire Safety Equipment

Figure 2-16 Fire prevention system

2.4.4.2. Liquid waste control facility

The factory plan has kitchen, canteen and toilet facilities attached in various buildings of the factory. In the kitchen, separated drainage lines are provided to flow wastewater from the activities washing and cooking, etc. And around the compound area of the project area, drainages are also provided and maintain to flow storm water (rain water, snow and surface water). The compound area of the factory will pave with concrete and holes are there to flow the storm water. The factory plans to use separate wastewater channels, septic type toilet system. Liquid waste from the dining room, canteens and toilet facilities are collected in septic tanks which are attached with sewer treatment plant and the proponent will connect and cooperate with township development committee to be carried out for disposing of these septic tank wastes. The wastewater discharge from domestic usage is estimated about 154.4m³ per day, 3,860m³ per month and 40,916m³ per year. Drainages are located on the side of factory buildings, canteen and office building. To mitigate the impact on water, the drainages around the compound area of the factory had to maintain and clean regularly by human power. Spillage and leakages of oil and grease should also be minimized.



Figure 2-17 Drainage photos

2.4.4.3. Solid waste management facility

The factory will provide separate garbage bins at each building. 15 large garbage bins are placed in operation area and this amount is enough for operation process. All of the solid wastes will be collected separately in garbage based on their types as reusable and non-reusable waste and stored in relevant separated concrete storage area. About 3-ton of final wastes will be disposed by using MJT Co., Ltd. (waste collection service) two-times per month. The reusable waste from production process is milled and reused as raw material.

Bottom ash and fly ash from boiler (75 kg/day) will be collected separately in garbage. The empty site beside the production factory, with an area of 63,000 ft², is intended for the disposal of boiler’s fly ash and bottom ash. Over the 50-year project lifespan, the total ash production is 1,368,750 kg, which corresponds to a volume of 72,562.5 ft³, based on an ash density of 1.5 kg/L (or 0.053 ft³/kg). Given the site area, the required depth for disposing of this ash over the 50 years is approximately 1.15 feet. This means that the available land area will be sufficient to accommodate the ash disposal, with a shallow accumulation depth of about 1.15 feet over the entire project duration. Therefore, the site is adequately sized to handle the ash disposal requirements.





Figure 2-18 Waste collecting photo

2.4.4.4. Ventilation System

The factory ventilation systems consist of natural ventilation system and mechanical ventilation system. The mechanical ventilation system is provided in office room, production area, canteen and warehouse area. The mechanical ventilation system is provided about 20 to 30 pcs and 10fans in production area, warehouse and drinking water storage room, canteen and office room.



Figure 2-19 Ventilation Supply Photo

2.4.4.5. Medical and Health facility for employments

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

- a) Medicine and first aids are placed at factory
- b) One who gets injury shall be sent to social welfare hospital as a care
- c) We will provide employees to learn in training concern with health care for one time in three months. The factory will pay the cost of medicine to employees who are working in long term at factory as a plan for health.



Figure 2-20 First Aid Box

2.4.4.6. Other Facilities for Employees

Foreign experts and technicians stay at dormitory of the factory and the meals for such experts are also provided. Housing will provide for all staffs in the form of separated dormitory for male and female. Dormitories are adequate for staffs who live in factory. Working hour starts from 7:30 am to 4:30 pm. The lunch time is from 12:00 am to 1:00 pm. Adequate dustbins are provided in the dormitories. The ventilation systems consist of natural ventilation system and mechanical ventilation system. The mechanical ventilation system will be provided in office room, production area, toilet, kitchen and dormitory. Landscaping, green area and sporting area will provide in project boundary area. Detail presentation plan in follow.

2.4.4.6.1 Toilets for Employees

The number of toilets should meet industry standards, which will not only improve employee comfort and productivity but also ensure compliance with health and safety regulations. The factory currently has 47 toilets. According to common guidelines for toilet requirements, which suggest 1 toilet per 25-30 people, the factory would need approximately 40 toilets for a workforce of about 2,000 people. Since the factory has 47 toilets, it meets the required number of toilets according to the common standard.

		Raw material cutting wastes	3000 kg/ month	cutting line
		Disposed packaging materials, paper or plastic wrapping	1000 kg/ month	Materials store and supply packaging
	Non re-usable	Food residues, domestic waste	602.55 kg / day*	Canteen, Kitchens, dormitory
		Bottom Ash, Fly Ash	75 kg / day	Boiler
Liquid waste		Sanitary discharge water	154.5 m ³ /day*	Toilet facility, kitchen and canteen
Hazardous waste		Residual chemicals, use chemical container	-	Chemical usage and store area
		Oil leakage and spills	-	Operation of generator and movements of vehicles

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

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

2.5. DECOMMISSIONING PHASE

The proposed project investment duration is 50 years and extension is two times of 10 years. In the decommissioning phase, the factory will uninstall and remove of the machinery and equipment is properly and carefully perform to prevent injury and accident, and will follow the relevant law, rules and regulations to reduce the impacts on the environment. After reaching the end of the investment period, it can be renewed and continue, and if the period is not extended, the landowner will be responsible.

CHAPTER 3 IDENTIFICATION OF THE PROJECT PROPONENT

3.1. PROJECT PROPONENT PROFILE

The project approved for the investment endorsement from the Myanmar Investment Committee (MIC) Endorsement No. 616/2013 on 9 September 2013 in Annual Production Rate. Myanmar Investment Commission announce for the environmental approval and comments of the Ministry of the Natural Resources and Environmental Conservation (MONREC) on the proposed project and had approved the proposal for investment in manufacturing of Footweares and outdoor sports products under CMP basis under the name of Melody Global Company Limited as a solely owned foreign investment from China. This is the information of project proponent from the registration of MIC, which is described in below Table 3-1.

Table 3-1 Information of Investor

Investor Name:	Mr. Chu, Sau-Lin
Citizenship:	Chinese
Company ID No.	107958614
Address of Registration office:	No.25, Lane 148, Fuxing South Road, Taipei, Taiwan

Table 3-2 List of Directors

Name of Shareholder	Citizenship & Passport No	Address	Designation
Mr. Chu, Sau-Lin	Chinese 212956268	No.25, Lane 148, Fuxing South Road, Taipei, Taiwan	MD
Ms. Kan, Yu-Chuan	Chinese 306157467	No.25, Lane 148, Fuxing South Road, Taipei, Taiwan	President
Mr. Chu, Chien-Wei	Chinese 213499955	No.25, Lane 148, Fuxing South Road, Taipei, Taiwan	Manager
Mr. Chu, Chien-Kang	Chinese 215231748	No.25, Lane 148, Fuxing South Road, Taipei, Taiwan	Assistant of MD

Table 3-3 Salient features of the project

Type of Proposed Business:	Manufacturing of Footweares and Outdoor Sports Accessories under the CMP Basis
Type of investment:	100% foreign Investment
Type of Share:	Ordinary Share
Type of land:	(Factory Land)
Total land area:	13.92 Acres

Type of building	8 one-story buildings Factory – 32000 sq.meter Boiler – 800 sq.meter Office – 3600 sq.meter Warehouse – 10000 sq.meter Dormitory – 2500 sq.meter
Land lease year:	50 years (+2 times of 10-year extension)
Construction period:	Two years
Address:	Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar
Contact person:	U Aye Lin Htun (Assistant Manager)
Mobile:	09-43173478
Email	adm.melodyglobal@gmail.com

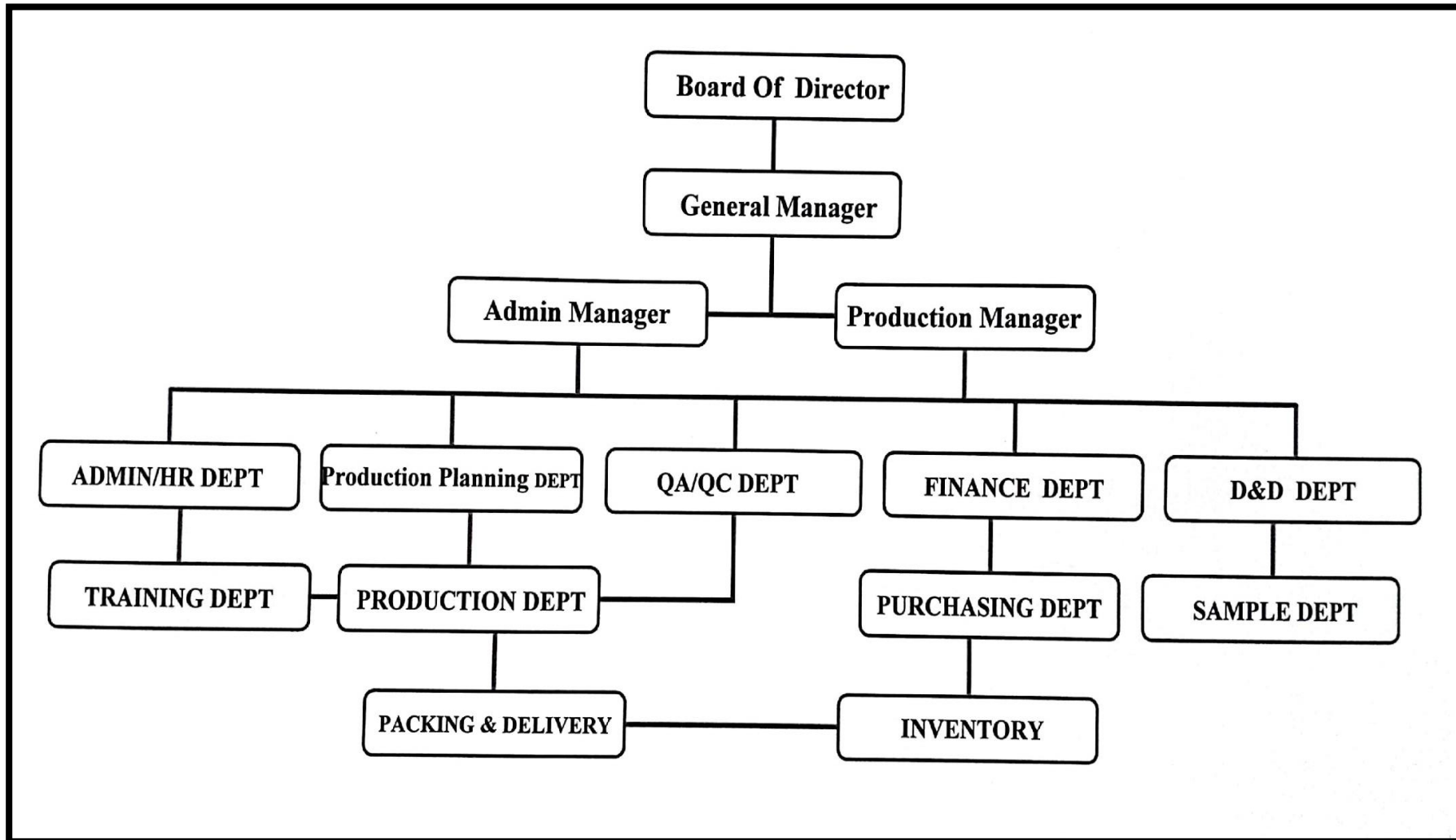


Figure 3-1 Organization Chart of Melody Global Company Limited

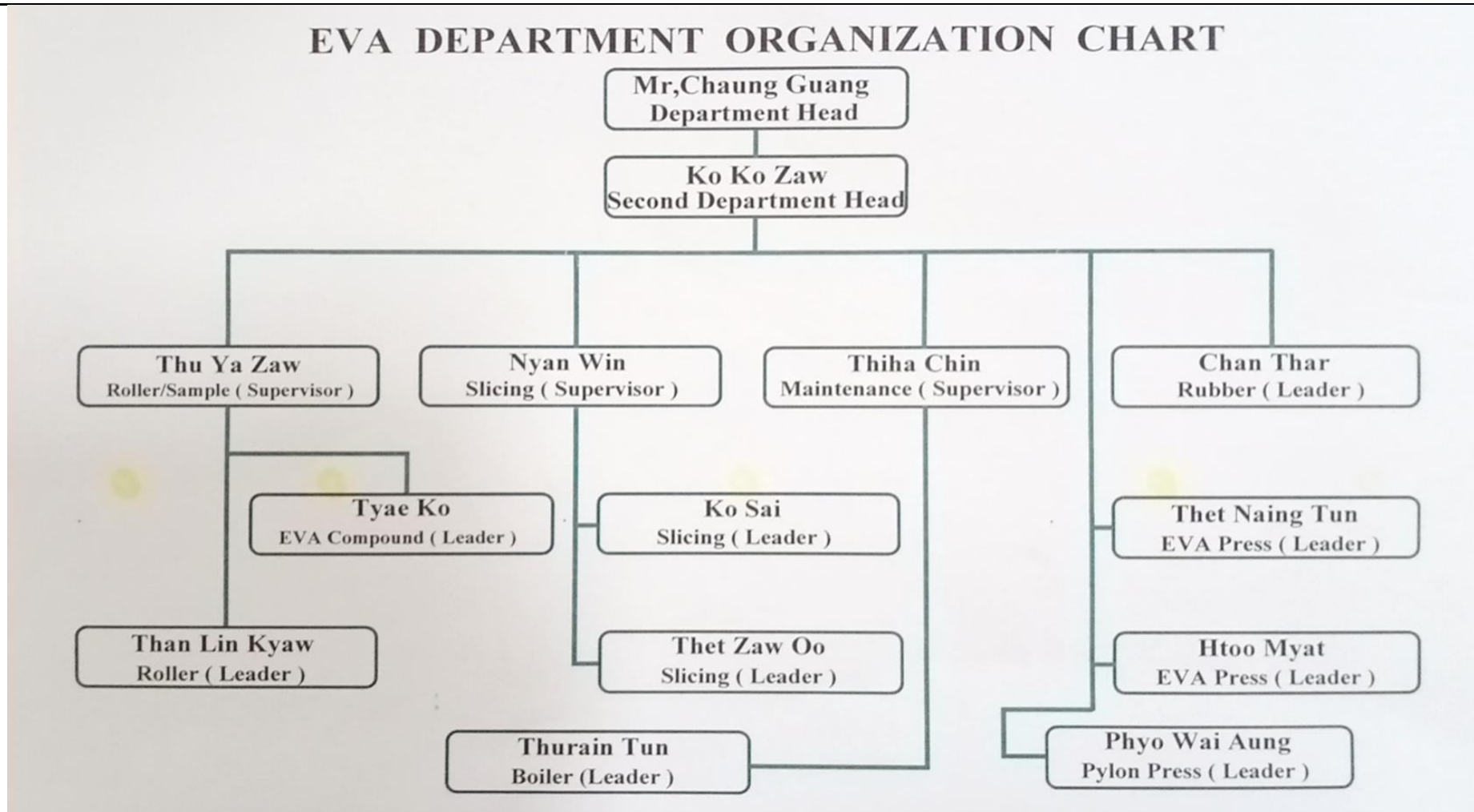


Figure 3-2 EVA Department Organization Chart of Melody Global Company Limited

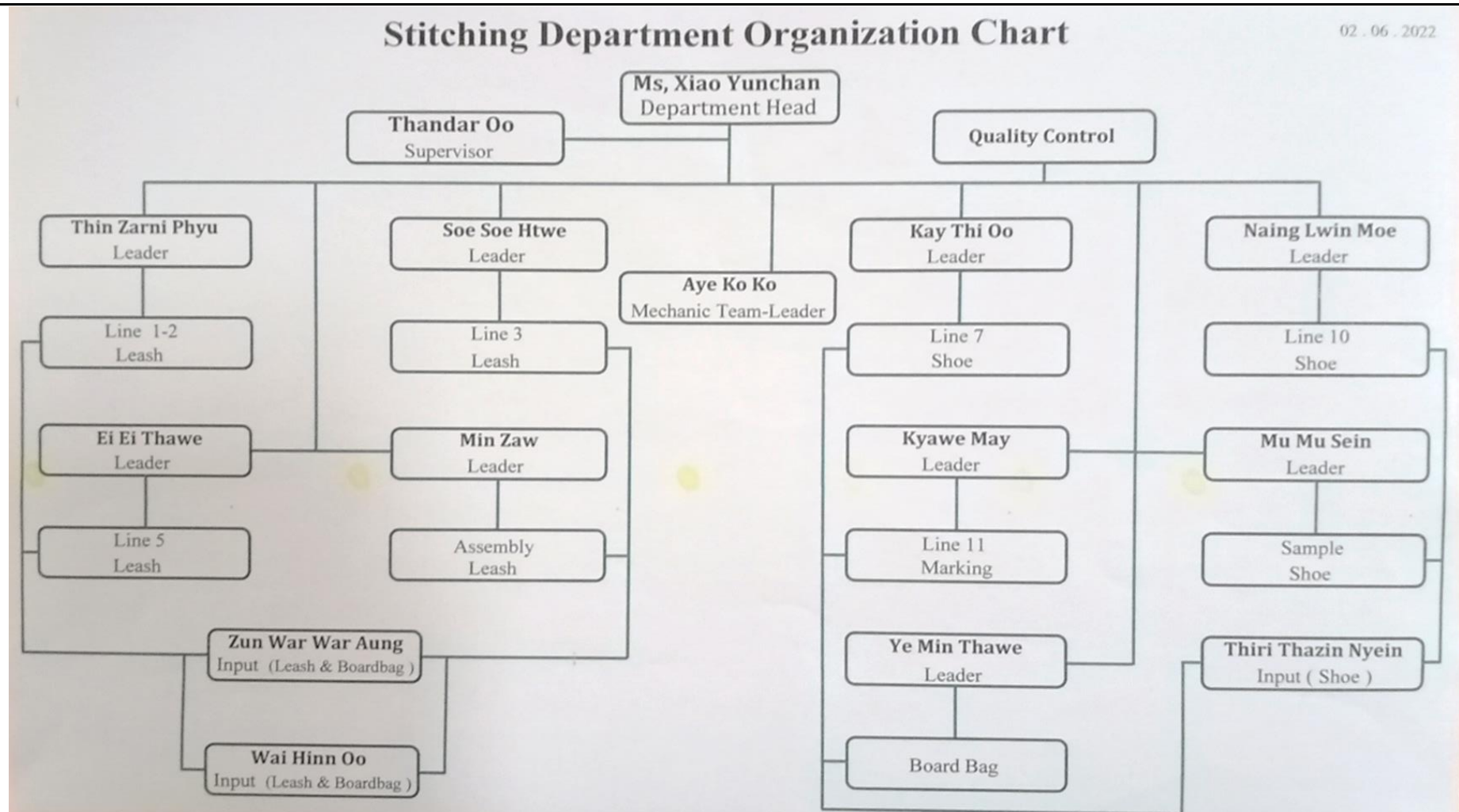


Figure 3-3 Stitching Department Organization Chart of Melody Global Company Limited

CHAPTER 4 IDENTIFICATION OF THE IEE EXPERTS

4.1. SCOPE OF IEE STUDY

This report describes the findings of the Initial Environmental Examination (IEE) for the Manufacturing of Footwears and Outdoor Sports Products under CMP Basis by Melody Global Company Limited. The main objective of this report is to identify the major environmental impacts due to implementation of the project along with the effective measures to mitigate the potential adverse impacts. According to the Myanmar Environmental Conservation Law (2012), it requires that the proponents of every development project in the country submit either an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA) to Ministry of Natural Resources and Environmental Conservation (MONREC). As per the comments of Environmental Conservation Department (ECD), the said project requires an Initial Environmental Examination (IEE) to meet the environmental assessment according to requirements of Notification No. Bago/SaSaYa (70(a)/2015) in 29 January, 2015. Therefore, Melody Global commissioned E Guard Environmental Services Co., Ltd. for IEE report study.

The IEE study firstly established baseline environmental setting within 1km of the project area, including existing conditions of air quality, water quality, noise, weather and local climate, waste, landscape and social assessment. The field studies were carried out by E Guard Environmental Services conducted field survey, assessment activities, and prepared the report. A reconnaissance study was performed on the proposed project site and baseline environmental data were also collected from possible sources using the appropriate measuring devices. Data interpretation and analysis were made based on those collected data for the present and potential future conditions. Suitable measures were proposed for the impacts to be mitigated to reduce to acceptable ones.

The specific objectives of the IEE study are as follows:

- To conduct preliminary examination of the environmental consequences of the project
- To describe the existing environmental condition of the proposed project site
- To collect detailed information about used of process, technology, equipment and machinery for proposed project
- To assess the potential environmental impacts of the proposed project
- To develop environmental management plan (EMP) with site specific environmental mitigation measures and monitoring standards guidelines for the proposed project
- To carry our public consultants to address any issues in concern with implementation of this project

4.2. Identification Of IEE Study Team

E Guard Environmental Services prepares the Initial Environmental Examination (IEE) with the Environmental Management Plan (EMP) for the proposed project. The environmental study was carried out by the study team and the following is a summary of team member's responsibilities during the study period. Member of IEE study teams are shown in Table 4-1.

Table 4-1 Members of IEE Study Team

No.	Name	Expert Field	License No.	Note
1	U Aung Moe Oo	1. Air Pollution Monitoring 2. Solid Waste and hazardous Waste Management	EIA - AC 010/2023	Team Leader
2	U Aung Myint Myat	1. Noise and Vibration 2. Ecology and Biodiversity	EIA - C 008/2023	Member
3	U Soe Min	1. Hydrology, Surface Water and Water Conservation 2. Water Pollution Prevention, Control, Monitoring and Prediction of Impacts 3. Air Pollution Prevention and Control	EIA - C 031/2023	Member
4	Daw May Pwint Phoo	1. Risk Assessment and Hazard Management	EIA - AC 007/2023	Member
5	U Saw Yan Naung	Social Study and Analysis	EIA - AC 054/2023	Member
6	Daw Su Myat Hlaing	Air Pollution Monitoring	EIA - AC 101/2024	Member
Supporting Team				
No.	Name	Supporting Field		
1	Daw Pyae Phyo Win	Air Pollution Prevention and Control		
2	U Aung Ye Thaw	Solid Waste and hazardous Waste Management		

CHAPTER 5 OVERVIEW OF THE POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

This chapter of the report mainly entailed stating and recommending a legal and regulatory framework for existing legal rights of national laws and regulations relating to natural resource conservation, labor rights, land use rights, and laws relating to implementing a plantation within Myanmar, whilst sub-chapters include the international laws, international treaties, and conventions. It is essential for Melody Global Company Limited to identify and implement appropriate legal arrangements which were required for performing foundry processes. At present, the existing legal framework in Myanmar is not yet fully developed to support environmental conservation, while some laws set out only basic principles and therefore require implementing regulations in order to be effective. Melody Global Company Limited itself is addressed only in disparate, vague, and related pieces of legislation.

This chapter will be the regulations and legal framework for the proposed project and recommendations to regulatory frameworks that fit with the Myanmar context and requirements will be covered. The project proponent is committed to the existing relevant Myanmar Laws, rules, and regulations. In addition, the project proponent is committed the international rules, regulations and guidelines related to the project.

5.1. MYANMAR REGULATORY FRAMEWORK

Myanmar has 31 ministries under the Office of the President as of 2021. The leading ministries in-charge of environmental and social considerations is the Environmental Conservation Department (ECD) of the MONREC, that was reorganized Ministry of Environmental Conservation and Forestry (MOECAF) in April 2016.

5.1.1. Laws and Regulations Related to Environmental and Social Considerations

The Project Proponent commits to follow these laws relating to environmental and social issues and their relevance to the IEE study for the proposed project are as the following Table 5-1.

Table 5-1 List of Myanmar’s Law relating to environmental management

Law and Regulation	Description
Constitution of the Republic of the Union of Myanmar (2008)	
Sec.45	The Union shall protect and conserve natural environment.
Sec.390 (b)	Every citizen has the duty to assist the Union carrying out the environmental conservation
Environmental Conservation Law, 30 March 2012	
The project proponent commits to comply with the section 3 sub-sections (c), (d) and (e), section 7 sub-sections (a), (b), (c), (j), (m) and (o), section 10 sub-sections (a), (b), (c), (d), (e), (f), (g), (h) and (i), section 14, 15, 16, 24 and 29.	

Section 3	<p>(c) to enable to emerge a healthy and clean environment and to enable to conserve natural and cultural heritage for the benefit of present and future generations;</p> <p>(d) to reclaim ecosystems as may be possible which are starting to degenerate and disappear;</p> <p>(e) to enable to manage and implement for decrease and loss of natural resources and for enabling the sustainable use beneficially;</p>
Provisions of Duties and Powers relating to the Environmental Conservation of the Ministry: Section 7	<p>(a) To specify categories and classes of hazardous wastes generated from the production and use of chemicals or other hazardous substances in carrying out industry, agriculture, mineral production, sanitation and other activities;</p> <p>(b) To prescribe categories of hazardous substances that may affect significantly at present or in the long run on the environment;</p> <p>(c) To promote and carry out the establishment of necessary factories and stations for the treatment of solid wastes, effluents and emissions which contain toxic and hazardous substances;</p> <p>(j) To prescribe the terms and conditions relating to effluent treatment in industrial estates and other necessary places and buildings and emissions of machines, vehicles and mechanisms;</p> <p>(m) To lay down and carry out a system of EIA and SIA as to whether or not a project or activity to be undertaken by any Government department, organization or person may cause a significant impact on the environment;</p> <p>(o) To manage to cause the polluter to compensate for environmental impact, cause to contribute fund by the organizations which obtain benefit from the natural environmental service system, cause to contribute a part of the benefit from the businesses which explore, trade and use the natural resources in environmental conservation works.</p>
Chapter VI Environmental Quality Standards: Section 10	<p>The Ministry may, with the approval of the Union Government and the Committee, stipulate the following environmental quality standards:</p> <p>(a) suitable surface water quality standards in the usage in rivers, streams, canals, springs, marshes, swamps, lakes, reservoirs and other inland water sources of the public;</p> <p>(b) water quality standards for coastal and estuarine areas;</p> <p>(c) underground water quality standards;</p> <p>(d) atmospheric quality standards;</p> <p>(e) noise and vibration standards;</p> <p>(f) emissions standards;</p> <p>(g) effluent standards;</p> <p>(h) solid wastes standards;</p> <p>(i) other environmental quality standards stipulated by the Union Government.</p>
Section 14	<p>A person causing a point source of pollution shall treat, emit, discharge and deposit the substances which cause pollution in the environment in accord with stipulated environmental quality standards.</p>

	<p>a) shall grant to the Ministry and/or its representatives, at any time during normal working hours, access to the Project's offices and to the Project site and any other location at which the Project activities or activities related to the Project are performed; and</p> <p>b) from time to time as and when the Ministry may reasonably require, shall grant the Ministry access to the Project's offices and to the Project site and any other location at which the Project activities or activities related to the Project are performed.</p>
Article 115	In the event of an emergency, or where, in the opinion of the Ministry, there is or may exist a violation or risk of violation of the compliance by the Project with all applicable environmental and social requirements, the Project shall grant full and immediate access to the Ministry at any time as may be required by the Ministry.
Article 117	The Project Proponent shall further ensure that the Ministry's rights of access hereunder shall extend to access by the Ministry to the Project's contractors and sub-contractors.
Myanmar Investment Law, 2016	
The project proponent commits to comply with the section 50 sub-section (d), section 51 sub-section (a), (b), (c), (d), (e) and (f), section 65 sub-sections (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n), (o), (p) and (q), and section 73.	
Chapter XII Rights to be used land Section 50	(d)The investor shall register the land lease contract at the Office of Registry of Deeds in accordance with the Registration Act.
Chapter XIII Employment of Staff and Workers Section 51	<p>The investor:</p> <p>(a) may appoint of any citizen who is a qualified person as senior manager, technical and operational expert, and advisor in his investment within the Union in accordance with the Laws;</p> <p>(b) shall appoint them to replace, after providing for capacity building programs in order to be able to appoint citizens to different level positions of management, technical and operational experts, and advisors;</p> <p>(c) shall appoint only citizens for works which does not require skill;</p> <p>(d) shall appoint skilled citizen and foreign workers, technicians, and staff by signing an employment contract between employer and employee in accordance with the labor laws and rules;</p> <p>(e) shall ensure to obtain the entitlements and rights in the labor laws and rules, including minimum wages and salary, leave, holiday, overtime fee, damages, compensation of the workman, social welfare, and other insurance relating to workers in stipulating the rights and duties of employers and employees and occupational terms and conditions in the employment contract;</p> <p>(f) shall settle disputes arising among employers, among workers, between employers and workers, and technicians or staff in the investment in accordance with the applicable laws.</p>
Chapter XVI Responsibilities of Investors Section 65	<p>The Investor:</p> <p>(a) shall respect and comply with the customs, traditions and traditional culture of the ethnic groups in the Union;</p> <p>(b) shall establish and register a company or sole proprietorship or legal entities or branches of such entities under the laws in order to invest;</p> <p>(c) shall abide by the terms and conditions, stipulations of</p>

	<p>special licenses, permits, and business operation certificates issued to them, including the rules, notifications, orders, and directives and procedures issued by this Law and the applicable laws, terms and conditions of contract and tax obligations;</p> <p>(d) shall carry out in accordance with the stipulations of the relevant department if it is, by the nature of business or by other need, required to obtain any license or permit from the relevant Union Ministries, government departments and governmental organizations, or to carry out registration;</p> <p>(e) shall immediately inform the Commission if it is found that natural mineral resources or antique objects and treasure trove not related to the investment permitted above and under the land on which the investor is entitled to lease or use and not included in the original contracts. If the Commission allows, the investor shall continue to carry out the investment in such land, and if not allowed, the investor shall transfer and carry out, by obtaining the permission, at the substituted place which is selected and submitted by him;</p> <p>(f) shall not make any significant alteration of topography or elevation of the land on which he is entitled to lease or to use, without the approval of the Commission;</p> <p>(g) shall abide by the applicable laws, rules, procedures and best standards practiced internationally for this investment so as not to cause damage, pollution, and loss to the natural and social environment and not to cause damage to cultural heritage;</p> <p>(h) shall list and keep proper records in books of accounting and annual financial statements, and necessary financial matters relating to the investments performed by a Permit or an Endorsement in accordance with internationally and locally recognized accounting standards;</p> <p>(i) shall close and discontinue the investment only after payment of compensation to employees in accordance with applicable laws for any breach of employment contracts, closure of investment, sale and transfer of investment, discontinuation of investment, or reduction of workforce;</p> <p>(j) shall pay wages and salaries to employees in accordance with applicable laws, rules, procedures, directives and so forth during the period of suspension of investment for a credible reason;</p> <p>(k) shall pay compensation and indemnification in accordance with applicable laws to the relevant employee or his successor for injury, disability, disease and death due to the work;</p> <p>(l) shall supervise foreign experts, supervisors and their families, who employ in its investment, to abide by the applicable laws, rules, orders and directives, and the culture and traditions of Myanmar;</p> <p>(m) shall respect and comply with the labor laws;</p> <p>(n) shall have the right to sue and to be sued in accordance with the laws;</p> <p>(o) shall pay effective compensation for loss incurred to the victim, if there is damage to the natural environment and socioeconomic losses caused by logging or extraction of natural resources which are not related to the scope of the permissible investment, except from carrying out the activities required to conduct investment in a Permit or an Endorsement.</p> <p>(p) shall allow the Commission to inspect in any places, when the Commission informs the prior notice to inspect the investment;</p> <p>(q) shall take in advance a Permit or an Endorsement of the Commission for the investments which need to obtain prior approval under the Environmental Conservation Law and the procedures of environmental impact assessment, before undertaking the assessment. Such investments</p>
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	shall be submitted the situation of environmental and social impact assessment to the Commission during the permitted investment period.
Chapter XVII Insurance Section 73	The investor shall ensure the types of insurance stipulated in the provision of the rules at any insurance enterprise which is entitled to carry out insurance businesses within the Union.
Myanmar Investment Rules, 2017	
The project proponent commits to comply with the rule 202, 203, 206 and 212 (a), (b), (c), (d), (e) and (f).	
Rule 202	The project proponent has to comply with the conditions of the permit issued by the MIC and applicable laws when making the investment
Rule 203	The project proponent has to fully assist while negotiating with the authority for settling the grievance of the local community which has been affected due to investment
Rule 206	The project proponent has to submit the passport, expert evidence or document of degree and profile to the MIC office for approval if decide to appoint a foreigner as senior management, technician expert or consultant according to subsection (a) of section 51 of Myanmar Investment Law
Rule 212	Every Investor that holds the permit or tax exemption or relief shall insure the relevant insurance out of the following types of the insurance at any insurance business entitled to carry out insurance business within the Union based on the nature of the business: (a) Property and Business Interruption Insurance; (b) Engineering Insurance; (c) Professional Liability Insurance; (d) Bodily Injury Insurance; (e) Marine Insurance; and (f) Workmen Compensation Insurance.
Myanmar Insurance Law (1993)	
The project proponent commits to comply with the section 15 and 16.	
Chapter VI Effecting Insurance and Granting of Benefits Section 15	Owners of motor vehicles shall affect compulsory Third Party Liability Insurance with the Myanmar Insurance.
Section 16	An entrepreneur or an organization operating an enterprise which may cause loss to State-owned property or which may cause damage to the life and property of the public or which may cause pollution to the environment shall affect compulsory General Liability Insurance with the Myanmar Insurance.
Payment of Wages Law (2016)	
The project proponent commits to comply with the section 3 sub-sections (a), (b) and (c), section 4 sub-sections (a), (b), (c), (d), (e), (f) and (g), section 5, section 13 sub-sections (a), (b), (c) and (d), and section 14.	
Chapter II Methods and Time of Payment of Wages	The employer: (a) shall pay wages to the workers employing in his business in local currency or foreign currencies stipulated by the Central Bank of Myanmar. Such payment may

<p>Section 3</p>	<p>be paid in cash or cheque or deposit into the bank account of the worker with the agreement between the employer and the worker.</p> <p>(b) In paying such wages:</p> <p>(i) if it is necessary to pay particular benefit, profits and opportunities for workers working in commerce, production and service businesses, it may be paid in cash or some in cash and some in things set up by local price on own volition of workers in accordance with the stipulations.</p> <p>(ii) For workers employing in agriculture and livestock breeding business, it may be paid some wage in cash and something set up by local price according to custom, or on the volition of majority of worker or by collective agreement. In paying so, it shall be for personal use and the interest of his family, and shall be appropriate and equitable.</p> <p>(c) If any worker is conscripted under the Public Military Service Law, the (60) days of wages shall be paid as a special right</p>
<p>Section 4</p>	<p>The employer:</p> <p>(a) shall pay wages at the end of the work or at the time agreed to pay to the worker for hourly, daily, weekly or other part time work, or temporary or piece work;</p> <p>(b) shall not exceed one month than the period agreed with the worker under sub-section (a) to pay wages;</p> <p>(c) shall pay the wages for the permanent work monthly. In making such payment:</p> <p>(i) if workers are not more than 100, wages shall be paid at the end of the period for payment of wage;</p> <p>(ii) If workers are more than 100, it shall be paid no later than five days after the end of the period for payment of wage;</p> <p>(d) shall pay the due wages within two working days from the date of termination, if a worker is terminated;</p> <p>(e) shall pay the wages at the end of the period for payment of wages, if a worker resigns on his own volition by sending prior written notice of resignation;</p> <p>(f) shall pay the due wages to a legal heir within two working days after the decease, if a worker is deceased;</p> <p>(g) shall pay all wages on a working day</p>
<p>Section 5</p>	<p>If an employer encounters difficulty to make payment under sub-section(c) of the Section 4 due to any unexpected condition, including natural disaster, the employer shall submit that which date has been altered for the payment of wages with the consent of the workers to the Department on reasonable ground.</p>
<p>Chapter III Deduction from Wages Section 13</p>	<p>The employer:</p> <p>(a) may deduct from wages, except leaves which are entitled wages under the relevant law and public holidays, for the absent period from work;</p> <p>(b) may deduct expenses which are allowance accommodation and ferry service are arranged by the employer, meal allowance, electricity charges, water service charges and income taxes liable to be paid by worker and cash paid in excess under a mistake, which are not included in the expression of wages under this Law;</p> <p>(c) may deduct advance payment or reimburse or savings for the worker or any contribution under any law demanded by a worker from wages;</p> <p>(d) may deduct from the wages of the worker under a decision of a Court or Arbitration Council or Arbitration Body.</p>
<p>Chapter IV Overtime Wages Section 14</p>	<p>The worker has the right to enjoy overtime wages stipulated by the law if he works over time.</p>

The Amended Law for Factories Act, 1951 (Amended in 2016)	
The project proponent commits to comply with the sections 3 and 4.	
Hygiene in Working Environment: Section 3	Mentions responsibilities of employer and manager regarding waste disposal, ventilation, extreme temperature, dust and gas generation, minimum space for each worker, lighting, portable drinking water and toilets for employees.
Safety in Working Environment: Section 4	States responsibilities of employer and manager concerning with machine guarding, personal protective equipment, housekeeping, aisles and exits, chemical storage and fire protection system to avoid accident.
The Private Industrial Enterprise Law, 1990	
The project proponent commits to comply with the section 4 sub-sections (a) and (b), 13 sub-sections (a), (b), (c), (d), (e), (f), (g) and (h), and 15 sub-sections (a) and (b).	
Chapter III Registration of Private Industrial Enterprises Section 4	(a) Any person desirous of conducting any private industrial enterprise; (b) Any person conducting any private industrial enterprise on the day this Law is enacted; by using any type of power which is three horsepower and above or manpower of ten wage-earning workers and above shall register under this Law.
Chapter VI Duties and Rights of the Entrepreneur Section 13	The duties of the entrepreneur are as follows: - (a) shall pay the registration fees, fees for the renewal of registration and other payable duties and taxes prescribed by the Directorate; (b) shall abide by the terms and conditions of the registration certificate; (c) shall conduct the enterprise by opening an account with the relevant bank in the name of its registered enterprise; (d) shall maintain systematically and fully as prescribed by the Directorate, the statement of accounts relating to the registered private industrial enterprise and shall submit the same to the relevant Government department, organization or Supervisory Body when required to do so; (e) shall submit to the inspection of the person or inspection body assigned by the Directorate or Supervisory Body; (f) shall shift the place of enterprise, change the nature of enterprise, amalgamate enterprises and split up enterprises only with the approval of the Directorate; (g) shall abide by the orders and directives issued from time to time by the Ministry and the Directorate; (h) shall also abide by the existing laws.
Chapter VI Duties and Rights of the Entrepreneur Section 15	The entrepreneur has the right to carry out the followings: - (a) appointing foreign experts and technicians with the approval of the Ministry; (b) carrying out change of the name of enterprise, transfer of ownership, temporary suspension or permanent closing down of the enterprise in the manner prescribed and with the approval of the Directorate.
The Social Security Law (2012)	

<p>The project proponent commits to comply with the section 11 sub-sections (a) and (b), section 13 sub-section (b), section 15 sub-section (b), section 18 sub-section (b), section 45 sub-sections (a) and (b), section 48 sub-sections (a), (b) and (c), section 49 sub-sections (a) and (b), section 53 sub-sections (a) and section 75 sub-sections (a), (b) and (c).</p>	
<p>Chapter V Social Security System and Benefits Section 11</p>	<p>(a) The following establishments shall be applied with the provisions for compulsory registration for social security system and benefits contained in this Law if they employ minimum number of workers and above determined by the Ministry of Labour in co-ordination with the Social Security Board:</p> <ul style="list-style-type: none"> (i) production industries doing business whether or not they utilize mechanical power or a certain kind of power, works of production, repairing or services, or engineering works, mills, warehouses, establishments; (ix) works carried out with foreign investment or citizen investment or joint ventured businesses; <p>(b) Any establishment which is applied with the provisions of compulsory registration under sub-section (a) shall continue to be applied by this Law even though any of the following situations occurs if it continues to carry out such work:</p> <ul style="list-style-type: none"> (i) carrying out work by employing under stipulated minimum number of workers but more than one worker; (ii) changing the employer or changing the type of business.
<p>Social Security System Section 13</p>	<p>The Social Security Board shall manage and keep the following social security systems in accord with the stipulations that insured persons may enjoy social security benefits:</p> <p>(b) Family Assistance Insurance System:</p> <ul style="list-style-type: none"> i) education allowance benefit for the children of insured persons who earn below the specified amount of income; ii) health care and aid benefit in time of natural disaster; iii) suitable benefit for dependent family members.
<p>Section 15</p>	<p>(a) The following funds are included in the Social Security Fund:</p> <ul style="list-style-type: none"> (i) health and social care fund; (ii) family assistance fund; (iii) invalidity benefit, superannuation pension benefit, and survivors' benefit fund; (iv) unemployment benefit fund; (v) other social security fund for social security system of compulsory registration and contribution specified by the Ministry of Labour, in co-ordination with the Social Security Board, according to clause (2) of subsection (e) of section 13; (vi) other social security fund specified as to which contribution may be paid after voluntary according to clause (2) of sub-section (e) of section 13; (vii) fund for Social Security Housing Plan;
<p>Section 18</p>	<p>(b) The employer shall deduct contributions to be paid by worker from his remuneration and pay to the social security fund together with contribution to be paid by him. The employer shall also bear the expenses for such contribution.</p>
<p>Chapter VI Application to Employment Injury Benefit System, Insurance</p>	<p>The provisions contained in this Law relating to the employment injury benefit insurance system shall apply to the following workers:</p> <p>(a) workers at establishments which are applied to social security system who have registered compulsorily in accord with sub-section (a) of section 16 and contributed to the social security funds contained in clauses (1), (3), (4) and (5) of sub-section (a) of section 15;</p>

The Vehicle Safety and Motor Vehicle Management Law (2020)	
The project proponent commits to comply with the section 9 sub-section (a), section 12 sub-section (c), section 14 sub-section (r), section 18 sub-section (a) and section 81 sub-section (g).	
Chapter IV Powers and Functions of the Ministry Section 9	The ministry shall, with the approval of the Union Government: (a)Specify the accessible and restricted places for motor vehicles for local use
Section 12	The ministry (c)shall approve and specify conditions, standards and formulate specifications relating to safety and environmental conservation for initial motor vehicle registration.
Section 14	The powers and functions of the Department are as follows: (r)Prescribing the speed limits of motor vehicles on public roads
Section 18	An owner of a motor vehicle shall: (a)repair and maintain his or her motor vehicle to meet the standards specified by the Department in order to drive safely
Section 81	In a public place, no person shall: (g) load or transport dangerous goods in a motor vehicle in inconformity with the stipulations
The Vehicle Safety and Motor Vehicle Management Rules (2022)	
The project proponent commits to comply with the rule 252, 253, 254, 255, 256, 261, 262, 269 and 271.	
အခန်း (၉) စီးပွားရေးလုပ်ငန်းသုံး မော်တော်ယာဉ်စည်းကမ်းများ Rule (252)	မည်သည့်မော်တော်ယာဉ်ကိုမဆို အငှားယာဉ်အဖြစ် မှတ်ပုံတင်ထားခြင်း မရှိသည့်အပြင် ကုန်းလမ်းသယ်ယူပို့ဆောင်ရေးလုပ်ငန်းများ ဥပဒေအရ ထုတ်ပေးသော သက်ဆိုင်ရာ လုပ်ငန်းလိုင်စင်ရယူထားခြင်း မရှိလျှင် စီးပွားရေးလုပ်ငန်းသုံးမော်တော်ယာဉ်အဖြစ် အသုံးမပြုရ။
Rule (253)	စီးပွားရေးလုပ်ငန်းသုံးမော်တော်ယာဉ်များသည် ဦးစီးဌာနက သတ်မှတ်သည့် တင်ဆောင်နိုင်သော ခရီးသည်အရေအတွက် သို့မဟုတ် ကုန်အလေးချိန်ထက်ပို၍ တင်ဆောင်ခြင်းမပြုရ။
Rule (254)	စီးပွားရေးလုပ်ငန်းသုံးမော်တော်ယာဉ်များသည် အောက်ပါအချက်များကို လိုက် နာရမည်- (က)ကုန်းလမ်းသယ်ယူပို့ဆောင်ရေးလုပ်ငန်းများ ဥပဒေအရ ထုတ်ပေးသော သက်ဆိုင်ရာ လုပ်ငန်းလိုင်စင်တွင်ပါရှိသည့် သတ်မှတ်ချက်များအတိုင်းသာ လုပ်ကိုင်ရမည်။ (ခ)ခရီးသည်တင်ယာဉ်အတွက် ခရီးသည်တက်၊ ဆင်းရန်နေရာနှင့် ရပ်နားရန် နေရာတို့ကိုလည်းကောင်း၊ ကုန်တင်ယာဉ်အတွက် ကုန်တင်ကုန်ချရန်နေရာ နှင့် ရပ်နားရန်နေရာတို့ကိုလည်းကောင်း၊ တက္ကစီယာဉ်များအတွက် အငှားလိုက်ရန် စောင့်ဆိုင်းသည့် နေရာနှင့် ရပ်နားရန်နေရာတို့ကိုလည်းကောင်း သက်ဆိုင်ရာ နေပြည်တော်ကောင်စီ၊ တိုင်းဒေသကြီး သို့မဟုတ် ပြည်နယ် အစိုးရအဖွဲ့များ၊ အစိုးရဌာနနှင့် အစိုးရအဖွဲ့အစည်းများက သတ်မှတ်ထားသည့် အတိုင်း အသုံးပြုရမည်။

Rule (255)	မည်သည့်အငှားယာဉ်ပိုင်ရှင်၊ ယာဉ်မောင်းနှင်သူ သို့မဟုတ် ယာဉ်အကူမဆို သတ်မှတ်ထားသော ယာဉ်ငှားရမ်းခ သို့မဟုတ် လူစီးခ သို့မဟုတ် ကုန်တင်ခထက် ပိုမို၍ တောင်းယူခြင်းမပြုရ။
Rule (256)	ကုန်တင်ယာဉ် (ဝန်လေး)၊ ခရီးသည်တင်ယာဉ်နှင့် တက္ကစီယာဉ်တို့တွင် ယာဉ်မောင်းနှင်သူ သို့မဟုတ် ယာဉ်မောင်းနှင်သူနှင့် ယာဉ်အကူနှစ်ဦးစလုံး၏ အမည်များနှင့် လိုင်စင်အမှတ်များကို ယာဉ်မောင်းနှင်သူအခန်းတွင် မြင်သာထင်ရှားစွာ ဖော်ပြထားရမည်။
Rule (261)	(က)ကုန်တင်ယာဉ်တွင် ကုန်ပစ္စည်းများကို မော်တော်ယာဉ်အတွင်း၌ တင်ဆောင်ရမည်။ မော်တော်ယာဉ်၏ ပြင်ပ ရှေ့ နောက်နှင့် ဘေးနှစ်ဘက်တွင် ပစ္စည်းများ တင်ဆောင်ချိတ်ဆွဲခြင်းမပြုရ။ (ခ)ကုန်တင်ယာဉ်တွင် သယ်ဆောင်လာသော ကုန်ပစ္စည်းများ အများပြည်သူဆိုင်ရာ လမ်းပေါ်သို့ ဖိတ်စဉ်ခြင်း မရှိစေရ။
Rule (262)	ဘေးအန္တရာယ်ရှိသော ကုန်ပစ္စည်းများကို သယ်ယူပို့ဆောင်မည့် မော်တော်ယာဉ် သည်- (က) ဓာတုပစ္စည်းနှင့် ဆက်စပ်ပစ္စည်းများ အန္တရာယ်မှ တားဆီးကာကွယ်ရေး ဥပဒေ၊ နည်းဥပဒေများ ပြဋ္ဌာန်းချက်များနှင့်အညီ လိုက်နာဆောင်ရွက်ပြီး ဖြစ်ရမည်။ (ခ) သက်တမ်းရှိ အငှားမော်တော်ယာဉ် မှတ်ပုံတင်ဆိုင်ရာ အထောက်အထားများနှင့် ကုန်းလမ်း သယ်ယူပို့ဆောင်ရေးဥပဒေအရ ထုတ်ပေးသော သက်ဆိုင်ရာ လုပ်ငန်းလိုင်စင်အပြင် ဘေးအန္တရာယ် ရှိသော ကုန်ပစ္စည်းများ သယ်ယူပို့ဆောင်ခွင့် အတွက် သက်ဆိုင်ရာအစိုးရဌာန၊ အစိုးရအဖွဲ့အစည်းက ထုတ်ပေးသည့် ထောက်ခံချက်များ ပြည့်စုံစွာပါရှိရမည်။ (ဂ) ဘေးအန္တရာယ်ရှိသော ကုန်ပစ္စည်းများ တင်ဆောင်လာသည့် မော်တော်ယာဉ်ဖြစ်ကြောင်း သိသာ ထင်ရှားစေရန် မော်တော်ယာဉ်အမှတ်အသား (Vehicle Marking)၊ ကွန်တိန်နာ အမှတ်အသား (Container Marking) နှင့် တိုင်ကီ အမှတ်အသား (Tank Marking) များ၊ ကုန်ပစ္စည်း အမျိုးအစား အလိုက် အန္တရာယ် ကင်းရှင်းစေရန် ထုပ်ပိုးခြင်း (Packaging)၊ တံဆိပ်ကပ်ခြင်း (Labelling)၊ ကုန်တင်ခြင်း (Loading) နှင့် ကုန်ချခြင်း (Unloading) များကို ဦးစီးဌာနက သတ်မှတ်ထားသည့်အတိုင်း တပ်ဆင်ထားရှိရမည်။ (ဃ)ဘေးအန္တရာယ်ရှိသော ကုန်ပစ္စည်းများ တင်ဆောင်လာစဉ် မတော်တဆမှု ဖြစ်ပွားပါက ဆောင်ရွက်ရမည့်အစီအမံများ၊ အန္တရာယ်ကင်းရှင်းစေရေး လိုအပ်သည့် ပစ္စည်းကိရိယာများ (Safety Equipment) ကို ဦးစီးဌာနက သတ်မှတ်ထားသည့် အတိုင်း ပြည့်စုံစွာ ကြိုတင်ပြင်ဆင်ထားရမည်။
Rule (269)	စီးပွားရေးလုပ်ငန်းသုံးမော်တော်ယာဉ်တွင် အသင့်အသုံးပြုနိုင်သည့် အရန်ဘီး၊ စက်ကိရိယာပြုပြင်ရန် တန်ဆာပလာ ပါရှိသည့်သေတ္တာ၊ မီးသတ်ဆေးဘူး၊ အရေးပေါ် ထွက်ပေါက်မှန်ခွဲရန် တူ သို့မဟုတ် ပုဆိန်၊ ကြမ်းတုံး၊ ရပ်နားကြိတ်နှင့် ရှေးဦးသူနာပြု ဆေးသေတ္တာတို့ ပါရှိရမည်။
Rule (271)	စီးပွားရေးလုပ်ငန်းသုံးမော်တော်ယာဉ် မှတ်ပုံတင်ထားသူအမည် သို့မဟုတ် နေရပ်လိပ်စာ ပြောင်းလဲလိုပါက မော်တော်ယာဉ်ပိုင်ရှင်သည် သက်ဆိုင်သည့် ဒေသဆိုင်ရာ မှတ်ပုံတင်အရာရှိနှင့် ကုန်းလမ်း သယ်ယူ ပို့ဆောင်ရေး လုပ်ငန်းများ ဥပဒေအရ လုပ်ငန်းလိုင်စင် ထုတ်ပေးသည့် တိုင်းဒေသကြီး သို့မဟုတ် ပြည်နယ် သို့မဟုတ် ပြည်ထောင်စုနယ်မြေ သို့မဟုတ် ခရိုင် သို့မဟုတ် မြို့နယ်ဦးစီးဌာနသို့ လျှောက်ထား ဆောင်ရွက်ရမည်။
The Conservation of Water Resources and River Law (2016)	

The project proponent commits to comply with the section 8 sub-sections (a) and (b), section 11 sub-section (a), section 19, 22 and 29.	
Chapter V Prohibitions Section 8	No person shall: (a) carry out any act or channel shifting with the aim to ruin the water resources and rivers and creeks. (b) cause the wastage of water resources wilfully.
Section 11	No person shall: (a) dispose of engine oil, chemical, poisonous material and other materials which may cause environmental damage, or dispose of explosives from the bank or from a vessel which is plying, vessel which has berthed, anchored, stranded or sunk.
Section 19	No one shall dispose of any substance into the river-creek that may cause damage to waterway or change of watercourse from the bank or vessel which is plying, vessel which has berthed, anchored, stranded or sunk.
Section 22	No one shall, without the permission of the directorate, pile sand, shingle and other heavy materials for business purposes in the bank area and waterfront area.
Chapter VI Penalties Section 29	Whoever attempts or conspires or abets in the commission of an offence under this Law shall be punished with the punishment provided for such offence in this Law.
Public Health Law (1972)	
The project proponent commits to comply with the section 3 sub-sections (1), (2), (3), (4), (5) and (6) and section 5.	
Section 3	Notwithstanding any other existing laws, the government shall further improve the health of the working people. To prevent the health of workers from being affected, and advising on the health issues described below; checking supervision; and repair Works such as prohibition shall be carried out. (1) Environmental health activities: (a) Garbage in the residential environment; Storage and disposal of waste. (b) Establishing and protecting public drinking water to international standards. (c) Smoke that will cause danger to people in the surrounding atmosphere where people live; width age powder, Protection from contamination by noise and radiation. (d) City and village municipalities; Buildings used by housing construction and workers to travel and live. Or for the health and hygiene of places. (2) Matters related to food produced and sold by workers: (a) food manufacturing and selling workshop; factory Registration of business units; Cancellation and re-registration of registration. (b) Making the food sold to the workers healthy and clean. (c) adulteration of food sold to the working public; mixed with other inferior materials; Protection from the extraction of addictive substances in food. (d) Workshops that produce and sell food; factory Keeping business departments healthy and clean.

	<p>(d) assess and record the amount of impact and time on the workplace environment, due to noise, illumination, temperature, dust, fume and hazardous materials, with the assistance of an expert on the respective subjects, if necessary;</p> <p>(e) inquire any person working at the workplace during working hours about contracting occupational diseases or potential situations with the assistance of a certified doctor;</p> <p>ask the responsible person from hospitals and medical clinics to confidentially send the medical report of a worker who is receiving medical treatment for injuring in a workplace accident or suffering from an occupational disease or information about death or the autopsy report requested with the form prescribed by the Department.</p>
Section-18	<p>The inspectors shall issue a temporary order to the employer for work stoppage partially or wholly with the approval of the chief inspector and inform the relevant departments, if necessary, if any occupational accident, disease, dangerous occurrence or major accident happens or is likely to happen due to any of the following facts:</p> <p>(a) impropriety to work continuously due to the unsafe workplace conditions, unsafe acts of workers, the existence of hazardous material and machinery at the workplace, or parts of machinery or laying out of machinery at the workplace, and working practices;</p> <p>(b) impropriety to work continuously due to violation of or failure to comply with any provision of this Law;</p> <p>(c) assumption to be harmful to workers at the workplace due to any act of negligence and carelessness or omission by any person;</p> <p>necessity to evacuate workers for safety due to the imminent danger situation of the occupational injury;</p>
Section-26	<p>Any employer shall:</p> <p>(a) arrange to assess the risk severity of material and machinery used in the workplace and process, if necessary;</p> <p>(b) arrange to assess the risk of occupational factors, if necessary;</p> <p>(c) arrange to conduct medical examination for workers by the certified doctor in accordance with the specifications whether occupational diseases are contracted;</p> <p>(d) arrange to be safe and healthy workplace based on the findings of subsections (a), (b) and (c);</p> <p>(e) provide the suitable personal protective equipment, things and facilities adequately prescribed and allowed by the Department to the workers with free of charge, and make sure them to wear at the workplace;</p> <p>(f) take the preventive measures and emergency response preparedness;</p> <p>(g) establish dispensary, appoint registered doctors and nurses, and provide necessary medicines and facilities at the workplace where the workers are not less than the number of workers prescribed by the Ministry;</p> <p>(h) cause to attend the training on occupational safety and health prescribed by the Ministry to the managers and workers from the respective type of</p>

	<p>work or branch including himself and members of the Occupational Safety and Health Committee;</p> <ul style="list-style-type: none"> (i) arrange to give information immediately to the person in-charge for occupational safety and health or managers if any worker faces the situation which is likely to happen occupational injury or harm his life and health; (j) arrange to be safe and healthy for persons at the work place due to material and machinery used in the workplace or process, or wastes; (k) arrange to stop the process immediately, remove the workers from the workplace, and perform necessary evacuation and rescue procedures in case of imminent danger. If possible, workers are transferred to and worked at other suitable safety workplaces; (l) have instructions, warning signs, notices, posters and signage regarding occupational safety and health in accordance with the specifications; (m) arrange to follow the precautions in accessing to the restricted workplaces where may be harmful; (n) arrange to distribute or disseminate the manual and guidance regarding the occupational safety and health issued by respective Ministries to workers and persons related to the workplace for acquiring knowledge, technology and skills; (o) design the fire security plan and organize the fire-drills, and train to use systematically fire extinguishers and devices; (p) allow the chief inspector and inspectors to inspect the workplace, inquire, ask for documents or seize exhibits; (q) employ workers within the prescribed working hours at hazardous work and workplaces; <p>bear any expenditure regarding occupational safety and health measures.</p>
Section-27	<p>No employer shall dismiss or suspend any worker due to one of the following reasons:</p> <ul style="list-style-type: none"> (a) before obtaining the medical report of a registered doctor for being injury in the workplace or the medical report of a certified doctor for contracting occupational disease; (b) complaint about a matter of unsafe or health risk; (c) undertaking the functions and duties of the Occupational Safety and Health Committee; <p>no longer working at the imminent danger situation or situation to be contracted the occupational disease.</p>
Section-34	<p>An employer, in accordance with the specifications, is liable to:</p> <ul style="list-style-type: none"> (a) inform the Department in case of an occupational accident, dangerous occurrence and major accident; <p>submit a report with the medical report of the certified doctor to the Department, in case of any worker contracted any of the prescribed occupational diseases or being or likely to be occupational poisoning due to any material or process.</p>

Section-36	<p>Inspectors shall investigate the occupational accident, dangerous occurrence, occupational disease, and occupational poisoning if they become aware of.</p> <p>(b) No person shall, without the permission of the chief inspector, remove, destroy, add or alter the whole or part of material, machinery, equipment, layouts, and documents related to the occupational accidents, dangerous occurrences, occupational diseases and occupational poisoning.</p> <p>(c) The prohibition of subsection (b) shall not be applicable to the activities necessarily for the safety of life and property, and rescue operations.</p> <p>(d) The chief inspector may allow to remove, detach, add and alter the material, machinery, equipment and layouts in case of causing adverse consequences due to the prohibition under subsection (b).</p>
The Export and Import Law (2012)	
The project proponent commits to comply with the section 5, 6 and 7.	
Prohibitions: Section 5	No persons shall export or import restricted, prohibited and banned goods.
Prohibitions: Section 6	Without obtaining license, no person shall export or import the specified goods which are to obtain permission.
Prohibitions: Section 7	A person who obtained any license shall not violate the conditions contained in the license.
The Prevention of Hazard from Chemical and Related Substances Law, 2013	
The project proponent commits to comply with the section 15 sub-sections (a) and (b), section 16 sub-sections (a), (b), (c), (d), (e), (f), (g), (h), (i), (j) and (k), section 17, 22, 27 sub-sections (a), (b), (c) and (d).	
Section 15	<p>A person who has obtained a licence, before starting the respective chemical and related substances business: -</p> <p>(a) shall be inspected for the safety and the power of resistance of the machinery and equipment by the respective Supervisory Board and Board of Inspection;</p> <p>(b) shall be attended the person who serve in the work to the respective foreign trainings or the trainings and the expert trainings on prevention of hazard from the chemical and related substances opened by the government department and the government organizations.</p>
Section 16	<p>A person who has obtained a licence: -</p> <p>(a) shall abide the licence regulations;</p> <p>(b) shall perform to abide strictly the instructions for being safety in using the chemical and related substances by himself and also the persons who serve the work;</p> <p>(c) shall keep the required safety equipment enough in the chemical and related substances businesses, furthermore shall grant the personal protection equipment and dresses free of charge to the working persons;</p> <p>(d) shall make the course of training and study and instruction if necessary to the working persons for using the occupational safety equipment, the personal protection equipment and the dresses systematically in the chemical and related substances business;</p>

	<p>(e) shall be inspected by the respective Supervisory Board and Boards of Inspection in respect of whether or not the hazard may impact on the Human Being and Animals' health and the environment;</p> <p>(f) shall make medical checkup the working persons who will work in the chemical and related substances business and shall permit to serve in that work after obtaining the recommendation that his health is suitable for that work. This medical checkup records shall be kept systematically;</p> <p>(g) shall send the copy of informative letter of the permission to the respective Department of Township Administration, if the hazardous chemical or related substances are permitted to store;</p> <p>(h) shall acquire in advance the guidance and agreement of the respective Department of Fire Brigade, if the business that is worried to fire hazard is operated by using the fire hazard substances or the explosive substances;</p> <p>(i) shall transport only the permitted amount of the chemical and related substances in accordance with the prescriptive stipulations, if they are transported in local;</p> <p>(j) shall take the permission from the Central Supervisory Board if the chemical and related substance is altered and transferred from one place to any other place which contained in the license;</p> <p>(k) shall abide and perform in accordance with the related environmental laws not to impact and damage to the environment in operating the chemical and related substances business.</p>
Section 17	A person who has obtained a licence, shall put the insurance in accordance with the prescriptive stipulations to be able to pay the compensation, if the impact and damage is occurred on the Human Being and Animals or the environment in respect of the chemical and related substances businesses.
Section 22	A person who has obtained the registration certificate shall abide the regulations consisted in the registration certificate furthermore shall also abide the order and instructions issued occasionally by the Central Supervisory Board.
Chapter IX Hazard Control and Decrease Section 27	<p>A person who has obtained the licence to be complied the following matters to control and decrease the hazard of the chemical and related substances: -</p> <p>(a) classifying the hazard level to protect in advance the hazard according to the properties of the chemical and related substances;</p> <p>(b) expressing the Material Safety Data Sheet and Pictogram;</p> <p>(c) providing the safety equipment, the personal protection equipment to protect and decrease the accident and attending to the training to be used systematically;</p> <p>(d) performing in accordance with the stipulations in respect of transporting, possessing, storing, using, discharging the chemical and related substances;</p>
The Underground Water Act (1930)	
The project proponent commits to comply with the sections 3 and 5.	
Section 3	<p>No person shall sink a tube for the purpose of obtaining underground water except under and in accordance with the terms of a licence granted by the water officer.</p> <p>Every person owning a tube which was in existence before the extension of this Act to the local area concerned shall apply to the water officer for a licence for the said tube, and such licence shall be granted free of charge.</p>
Section 5	Every person obtaining or attempting to obtain underground water shall supply the water officer with such information as the Government may by rule prescribe.
The Myanmar Fire Brigade Law (2015)	

The project proponent commits to comply with the section 25.	
Section 25	The project proponent has to institute the specific fire services. The project owner has to provide materials and apparatuses for fire precaution and prevention.
The Electricity Law (2014)	
The project proponent commits to comply with the section 44, 45, 46, 47, and 48.	
Section 44	No person shall operate the electrical business without permit.
Section 45	No permit holder shall operate any other electrical business except the business contained in the permit.
Section 46	No person shall operate the electrical installation and repair without obtaining the electrical professional certificate.
Section 47	No person shall operate the generation, transmission, connection of electric power without obtaining the electrical safety certificate.
Section 48	No person shall operate the importing, manufacturing in the country, exporting, distributing and selling of the electrical equipment which are not consistent with the prescribed norm and standard.
Boiler Law (2015)	
The project proponent commits to comply with the chapter (3) sub-section (a) and (b), chapter (4) section 5, 6, 7, 8, 9 and 10, chapter (13) section 59, 60, 61, 62 and 63.	
Chapter (3) 4. With the permission of the Ministry, the inspector general can:	(a) Notify the inspection methods and instructions according to the national or international standards for safe operations of boilers in line with this law, procedures and instructions (b) Only the results obtained from the prescribed boiler standards and inspection methods will be approved.
Chapter (4). Boiler Registration	5. Anybody who would like to use a boiler in any kind of business should be registered. 6. Boiler should be manufactured according to Myanmar Standards or International Standards. 7. Those who would like to apply for boiler registration according to Section 5 should apply to the inspector with the application, documents and vouchers related to boiler 8. If the application regarding registration of boiler according to Section 7, the Registration Officer should conduct necessary inspection and submit results of the findings to the Inspector General. 9. The Inspector General should assess and inspect the submission of the Registration Officer according to Section 8 and could allow or reject for registration of the boiler. 10. The Inspector General shall define boiler size according to heated surface area in accordance with adopted procedures.
Chapter (13) Prohibitions	59. According to Section 21, nobody must alter, change, deface, deform or make embossed registration unnoticeable illegitimately.

Section 14	with the requirements of the enterprise and the policy of the Skills Development Agency.
Chapter (8) Establishing and Utilizing Workers' Skills Development Fund Section 30	(a) The employers of Industrial and Service Enterprises shall pay contribution to the fund every month without fail amounting to not less than below 0.5% of the payroll of his workers up to the level of supervisors of the workers. (b) The employer shall not deduct the contribution paid under sub-section (a) to the fund from the wages of the workers.
The Workmen Compensation Act 1923 (Amendment 2005)	
The project proponent commits to comply with the section 13.	
Section 13	Where a workman has recovered compensation in respect of any injury caused under circumstances creating a legal liability of some person other than the person by whom the compensation was paid to pay damages in respect thereof, the person by whom the compensation was paid and any person who has been called on to pay an indemnity under section 12 shall be entitled to be indemnified by the person so liable to pay damages as aforesaid.
The Payment of Wages Act, 1936	
The project proponent commits to comply with the section 3 sub-sections (a), (b) and (c), section 4 sub-sections (a), (b), (c), (d), (e), (f) and (g), section 5, section 13 sub-sections (a), (b), (c) and (d), and section 14.	
Chapter II Methods and Time of Payment of Wages Section 3	The employer: (a) shall pay wages to the workers employing in his business in local currency or foreign currencies stipulated by the Central Bank of Myanmar. Such payment may be paid in cash or cheque or deposit into the bank account of the worker with the agreement between the employer and the worker. (b) In paying such wages: (i) if it is necessary to pay particular benefit, profits and opportunities for workers working in commerce, production and service businesses, it may be paid in cash or some in cash and some in things set up by local price on own volition of workers in accordance with the stipulations. (ii) For workers employing in agriculture and livestock breeding business, it may be paid some wage in cash and something set up by local price according to custom, or on the volition of majority of worker or by collective agreement. In paying so, it shall be for personal use and the interest of his family, and shall be appropriate and equitable. (c) If any worker is conscripted under the Public Military Service Law, the (60) days of wages shall be paid as a special right
Section 4	The employer: (a) shall pay wages at the end of the work or at the time agreed to pay to the worker for hourly, daily, weekly or other part time work, or temporary or piece work; (b) shall not exceed one month than the period agreed with the worker under sub-section (a) to pay wages; (c) shall pay the wages for the permanent work monthly. In making such payment: (i) if workers are not more than 100, wages shall be paid at the end of the period for payment of wage; (ii) If workers are more than 100, it shall be paid no later than five days after the end of the period for payment of wage; (d) shall pay the due wages within two working days from the date of termination, if a worker is terminated;

	<p>(e) shall pay the wages at the end of the period for payment of wages, if a worker resigns on his own volition by sending prior written notice of resignation;</p> <p>(f) shall pay the due wages to a legal heir within two working days after the decease, if a worker is deceased;</p> <p>(g) shall pay all wages on a working day</p>
Section 5	If an employer encounters difficulty to make payment under sub-section(c) of the Section 4 due to any unexpected condition, including natural disaster, the employer shall submit that which date has been altered for the payment of wages with the consent of the workers to the Department on reasonable ground.
Chapter III Deduction from Wages Section 13	<p>The employer:</p> <p>(a) may deduct from wages, except leaves which are entitled wages under the relevant law and public holidays, for the absent period from work;</p> <p>(b) may deduct expenses which are allowance accommodation and ferry service are arranged by the employer, meal allowance, electricity charges, water service charges and income taxes liable to be paid by worker and cash paid in excess under a mistake, which are not included in the expression of wages under this Law;</p> <p>(c) may deduct advance payment or reimburse or savings for the worker or any contribution under any law demanded by a worker from wages;</p> <p>(d) may deduct from the wages of the worker under a decision of a Court or Arbitration Council or Arbitration Body.</p>
Chapter IV Overtime Wages Section 14	The worker has the right to enjoy overtime wages stipulated by the law if he works over time.
The Leave and Holidays Act (1951, partially revised in 2014)	
The project proponent commits to comply with the sections 23, 24, 25, 26, 27, 49 (a), (b) and (c), 50 (a), (b), (c), (d), (e), (f), (g), (h), (i) and (j).	
Chapter (3) Leave Section 23	A worker has the right to take leave with respective wages or with respective salary according to the type of leave and designated period set-up by the law. However, workers are entitled to take earned leave with respective average wages or average salary.
Section 24	Workers have the right to take casual leave, medical leave or maternity leave within the probation period.
Section 25	For days in which a worker is not in the workplace after the end of a period of leave, such days shall not be counted as leave.
Section 26	If there are holidays just before or right after one's leave commences, these days cannot be counted as part of the leave period.
Section 27	Subjecting a worker to relocation, suspension of duty, reduction of salary or termination within their leave period is not allowed.
Chapter (4) Duties and Responsibilities of Worker Section 49	<p>The worker</p> <p>(a) must ask for leave from the employer or the manager or from an authorized person with Form</p> <p>(1) within the normal working hours.</p> <p>(b) must report to the employer or to the manager or to an authorized person when the worker is back in the workplace after taking leave.</p>

	<p>(c) must inform employer or manager or authorized person, by phone or any other method, if the worker is unable to return to the workplace from their current location by the end of leave due to natural disaster or unforeseen happenings or accident occurring within the leave period.</p>
<p>Chapter (5) Duties and Responsibilities of an Employer Section 50</p>	<p>The employer</p> <p>(a) must provide the worker casual leave, medical leave and maternity leave with respective wages or salary. Moreover, must allow the worker earned leave with respective average wages or average salary. If the employer normally pays the cost of living, then the cost of living must also be included.</p> <p>(b) must provide the worker with earned leave starting from the day of entitlement within 12 months, with respective average wages or with average salary, and also must advance the entitled wage prior to the worker taking leave.</p> <p>(c) must announce the number of entitled earned leave calculations within three months starting from the last day of the 12-month period or entitled earned leave. In this way, workers can take leave by turns (alternatively). Moreover, to fix the eligibility period within which workers can take earned leave.</p> <p>(d) if the worker resigns or is terminated or in case of death, has to pay the respective wages/salary within two business/working days starting from the date of incidence.</p> <p>(e) has to pay the eligible wage/salary for earned leave to his/her official representative (if the worker is deceased).</p> <p>(f) has to pay for the respective earned leave period if there is a temporary or permanent shutdown.</p> <p>has to allow eligible earned leave if the nature of work is less than twelve months.</p> <p>(g) is not allowed to suspend, to reduce the salary, to relocate or to terminate a worker due to the worker taking maternity leave or medical leave.</p> <p>(h) has to fill up Form (1), (2), (3), (4), (5) and (6) according to the law. These forms shall be easily accessible from the Inspector. The employer must maintain these documents for up to twelve months' period.</p> <p>(i) has to record the leave taken in Form (7) and submit to the Inspector not later than every seventh day of each month.</p> <p>(j) wants the worker to work on a gazette holiday, the employer must receive consent from the worker. The employer must submit Form (8) to the Inspector for approval.</p>
<p>The Minimum Wage Law (2013)</p>	
<p>The project proponent commits to comply with the section 12 sub-sections (a), (b), (c), (d) and (e), section 13 sub-sections (a), (b), (c), (d), (e) (f) and (g), section 18 sub-sections (a), (b), (c), (d) and (e).</p>	
<p>Chapter VII The Duties of the Employee Section 12</p>	<p>The employer:</p> <p>(a) shall not pay wage to the worker less than the minimum wage stipulated under this Law</p> <p>(b) may pay more than the minimum wage stipulated under this Law;</p> <p>(c) shall not have the right to deduct any other wage except the wage for which it has the right to deduct as stipulated in the notification issued under this Law;</p> <p>(d) Shall pay the minimum wage to the workers working in the commercial, production and service business in cash. Moreover, if the specific, benefits, interests or opportunities are to be paid, it may be paid in cash and partly in property, with prevailing regional price, jointly according to the desire of the worker;</p> <p>(e) In paying minimum wage to the workers working in the agricultural and livestock business, some cash and some property at prevailing regional price may</p>

	be paid jointly according to local customer desire of the majority of workers or collective agreement. Such payment shall be for any personal use and benefit to the worker and his family and the value shall also be considerable and fair.
Section 13	<p>The employer:</p> <p>(a) shall inform the workers the rates of minimum wage relating to the business among the rates of minimum wage stipulated under this Law and advertise it at the workplace to enable to be seen by the relevant workers;</p> <p>(b) shall prepare and maintain the lists, schedules, documents and wages of the workers correctly;</p> <p>(c) shall report the lists, schedules and documents prepared and maintained under subsection (b) to the relevant department in accord with the stipulations;</p> <p>(d) Shall accept the inspection when summoned by the inspection officer. Moreover, he shall produce the said lists and documents upon asking to submit;</p> <p>(e) shall allow the entry and inspection of the inspection officer to the commercial, production and service businesses, agricultural and livestock breeding workplaces and give necessary assistances;</p> <p>(f) if the workers cannot work due to sickness, shall give them holiday for medical treatment in accord with the stipulations;</p> <p>(g) if the funeral matter of the member of the family of worker or his parent occurs, shall give holiday without deducting from the minimum wage, in accord with the stipulations.</p>
<p>Chapter I X</p> <p>Assigning Duty to the Inspection Officer, Inspection and Taking Action</p> <p>Section 18</p>	<p>The inspection officer:</p> <p>(a) has the right to enter and inspect the relevant commercial, production and service work places, agricultural and livestock breeding workplaces and inspect whether or not they comply with and carryout in accord with the rules, notifications, orders, directives and procedures under this Law, whether or not the lists, schedules and documents, wages relating to the workers are prepared correctly, and whether or not such lists, schedules and documents are reported to the Department in accord with the stipulations;</p> <p>(b) May summon, inspect the relevant persons under the assignment of duty by the Department, asking and copying for the relevant lists, schedules and documents.</p> <p>(c) if there are outside workers at employer, has the right to inspect information relating to such outside workers, their names and addresses and the right to ask for and copy their lists and documents and lists relating to minimum wage;</p> <p>(d) in carrying out under sub-section (a), (b) and (c) relating to inspection, if required by the employer to produce the document, shall show the civil service identify car disused by the relevant department;</p> <p>(e) report to the Department in accord with the stipulations relating to the finding under sub-sections (a), (b) and (c), and documents and papers called for.</p>
Occupational Safety and Health Law (2019)	
The project proponent commits to comply with the section 12 sub-sections (a) and (b), section 14, 16, section 17 sub-sections (a), (b), (c), (d), (e) and (f), section 18 sub-sections (a), (b), (c) and (d), section 26 sub-sections (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n), (o), (p), (q) and (r), section 27 sub-sections (a), (b), (c) and (d), section 34 sub-sections (a) and (b) and section 36 sub-sections (a), (b), (c) and (d).	
Section-12	<p>The employer shall:</p> <p>(b) appoint a person in-charge for occupational safety and health according to the type of industries to closely supervise the safety and health of the workers in accordance with the specifications of the Ministry;</p>

Section-27	<p>No employer shall dismiss or suspend any worker due to one of the following reasons:</p> <ul style="list-style-type: none"> (d) before obtaining the medical report of a registered doctor for being injury in the workplace or the medical report of a certified doctor for contracting occupational disease; (e) complaint about a matter of unsafe or health risk; (f) undertaking the functions and duties of the Occupational Safety and Health Committee; <p>no longer working at the imminent danger situation or situation to be contracted the occupational disease.</p>
Section-34	<p>An employer, in accordance with the specifications, is liable to:</p> <ul style="list-style-type: none"> (b) inform the Department in case of an occupational accident, dangerous occurrence and major accident; <p>submit a report with the medical report of the certified doctor to the Department, in case of any worker contracted any of the prescribed occupational diseases or being or likely to be occupational poisoning due to any material or process.</p>
Section-36	<p>Inspectors shall investigate the occupational accident, dangerous occurrence, occupational disease, and occupational poisoning if they become aware of.</p> <ul style="list-style-type: none"> (b) No person shall, without the permission of the chief inspector, remove, destroy, add or alter the whole or part of material, machinery, equipment, layouts, and documents related to the occupational accidents, dangerous occurrences, occupational diseases and occupational poisoning. (c) The prohibition of subsection (b) shall not be applicable to the activities necessarily for the safety of life and property, and rescue operations. (d) The chief inspector may allow to remove, detach, add and alter the material, machinery, equipment and layouts in case of causing adverse consequences due to the prohibition under subsection (b).
The law on Standardization (2014)	
<p>Chapter 7 Taking Action by Committee No. 19</p>	<p>The committee may, if it is found out that holder of certificate of certification violates any term or condition contained in the relevant recommendation, pass any of the following administrative order:</p> <ul style="list-style-type: none"> warning suspending the certificate of certification for limited period cancelling the certificate of certification
Myanmar Insurance Law (1993)	
<p>Chapter VI Effecting Insurance and Granting of Benefits Section 15</p>	<p>Owners of motor vehicles shall affect compulsory Third-Party Liability Insurance with the Myanmar Insurance.</p>

Section 16	An entrepreneur or an organization operating an enterprise which may cause loss to State-owned property or which may cause damage to the life and property of the public or which may cause pollution to the environment shall affect compulsory General Liability Insurance with the Myanmar insurance.
The Conservation of Water Resources and River Law (2006)	
Aims	The aims of this Law are as follow: To conserve and protect the water resources and rivers system for beneficial utilization by the public; To smooth and safety waterways navigation along rivers and creeks; To contribute to the development of State economy through improving water resources and river system; To protect environmental impact
Chapter V Prohibition Section 9	No person shall destroy, cause damage or cause collision of vessel with the river training structure either wholly or partly.
Section 11	No person shall; Dispose of engine oil, chemical, poisonous material and other materials which may cause environmental damage, or dispose of explosives from the bank or from a vessel which is plying vessel which has berthed, anchored, stranded or sunk. Catch aquatic creatures within river-creek boundary, bank boundary or waterfront boundary with poisonous materials or explosives. Dispose of disposal soil and other materials from panning for gold, gold mineral dredging or resource production in the river and creek, into the water outlet gully which can flow into the river and creek.
Section 15	No person shall carry out the construction of switchback, dockyard, wet dockyard, water-tight dockyard, building of jetty, pier, landing stage or vessel landing by drainage in the river-creek boundary, bank boundary and waterfront boundary without the permission of the Directorate.

5.2. NATIONAL GUIDELINES AND STANDARDS

5.2.1. National Environmental Quality (Emission) Guidelines (NEQEGs)

According to the Environmental Conservation Law, MOECAAF shall set standards of environmental qualities as agreed by the Union Government and the Environmental Conservation Committee to provide the basis for regulation and control of noise and vibration, air emissions and liquid discharges from various sources in order to prevent pollution for purposes of protection of human and ecosystem health. In section 13 of NEQEGs, Air emissions, noise, odor, and liquid/effluent discharges will be sampled and measured at points of compliance as specified in the project EMP and ECC.

5.2.2. General Guidelines

General guidelines of related environmental impact guideline for proposed project are-

5.2.2.1. Air Emission

Projects with significant sources of air emissions, and potential for significant impacts to ambient air quality, should prevent or minimize impacts by ensuring that: (i) emissions do not result in concentrations that reach or exceed national ambient quality guidelines and standards, or in their absence current World Health Organization (WHO) Air Quality Guidelines¹ for the most common pollutants as summarized below; and (ii) emissions do not contribute a significant portion to the attainment of relevant ambient air quality guidelines or standards (i.e. not exceeding 25 percent of the applicable air quality standards) to allow additional, future sustainable development in the same air shed. Industry-specific guidelines summarized hereinafter shall be applied by all projects to ensure that air emissions conform to good industry practice. Reference should be made to WHO's Air Quality Guidelines for Europe² for air pollutants not included in the following Table 5-2.

Table 5-2 NEQEGs's air quality guideline

Parameter	Averaging Period	Guideline Value
Nitrogen Dioxide	1-year	40
	1-hour	200
Ozone	8-hour	100
Particulate Matter PM ₁₀ ^a	1-year	20
	24-hour	50
Particulate Matter PM _{2.5} ^b	1-year	10
	24-hour	25
Sulfur dioxide	24-hour	20
	10-minute	500

^a Particulate matter 10 micrometers or less in diameter

^b Particulate matter 2.5 micrometers or less in diameter

5.2.2.2. Wastewater

Industry-specific guidelines apply during the operations phase of projects and cover direct or indirect discharge of wastewater to the environment. They are also applicable to industrial discharges to sanitary (domestic) sewers that discharge to the environment without any treatment. Wastewater generated from project operations includes process wastewater, wastewater from utility operations, runoff from process and storage areas, and miscellaneous activities including wastewater from laboratories, and equipment maintenance shops. Projects with the potential to generate process wastewater, sanitary sewage, or storm water should incorporate the necessary precautions to avoid, minimize, and control adverse impacts to

Phenols	mg/l	0.001
Mercury	mg/l	0.001
Cadmium	mg/l	0.01
Selenium	mg/l	0.01
Arsenic	mg/l	0.05
Cyanide	mg/l	0.05
Lead	mg/l	0.1
Zinc	mg/l	5.0
Chromium	mg/l	0.05

5.4. COMMITMENT OF MELODY GLOBAL COMPANY LIMITED

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

- ✓ To set up welfare plan such as staff medical checkup, training program and public talk for getting knowledge, risk prevention, bonus and social security services.
- ✓ To promote Corporate Social Responsibility - (CSR) with 2% of the net profit for development of safe, economic and social environment
- ✓ To carry out fire safety assessment and ensure adequate and appropriate fire safety measures for employees

To carry out disposing wastes according to Bago Municipal's regulations, protect, and preserve the project environment from pollution of air, water and land by following laws and guidelines lay down by MONREC.



Mr. Chu, Chien-Kang
 Assistant of
 Managing Director
 Melody Global Co., Ltd.

CHAPTER 6 DESCRIPTION OF THE SURROUNDING ENVIRONMENT AND SOCIAL CONDITIONS

The purpose of this Chapter is to predict how environmental and socio-economic conditions will affect because of the implementation of the proposed Project. This requires a sound understanding of the baseline conditions at the Project Site, which established through desk research, site surveys, primary data collection and projections for future developments. Findings provide the current and future characteristics of the Project Site and the value and vulnerability of the key environmental and socio-economic resources and receptors. The following sections provide a description of the environmental and socio-economic aspects of the Project.

6.1. SETTING OF THE STUDY AREA LIMIT

The IEE study area for this project is roughly defined to be the area within a 1 km radius of the center of the project site. Being situated within an industrial zone, this area includes adjacent industries located within this radius of the study site. The environmental and social impact study will be confined to this boundary. The area within 1 km radius of the project is studied through ground surveys and desk research. The environmental and socio-economic settings of the study area based on available information collected during field survey and secondary data from Bago Township General Administration Department and Census Data of Bago Sub-Township.

6.2. METHODOLOGY AND OBJECTIVES

The followings are methodologies used for this Initial Environmental Examination (IEE) report preparation;

- Onsite Measurements and Analysis – Baseline parameters such as air quality and noise quality of the existing project site during the operation phase were measured onsite. For water quality parameters was also measured on site and sample raw water and waste were sent to respective laboratories for analysis.
- Secondary data collection of proposed project site area – Socio economic condition, physical/biological environment, and weather data are collected from official township data of Bago Township, Bago Region.

The assessment in this chapter aims to divide direct and indirect impacts of the proposed project. Direct impacts generated by operational activities will include dust and noise generation, as well as wastewater discharge in the project area. Indirect impacts, such as dust generation from construction vehicle movements, are expected to affect nearby areas. The details of air and noise monitoring, light intensity monitoring, water quality sampling (ground water, drinking water, waste water) and socio-economic survey are mentioned in this chapter.

6.3. PHYSICAL COMPONENT

6.3.1. Topography

The proposed project area is situated at U Paing No. (2+42), Kyay Tite Pyin Kwin, Mae Kone Village, Bago Township, Bago Region, and its topographic condition is flat.

6.3.2. Geology

The Bago area is mainly composed of bluish gray silts and clay of younger alluvium (recent). The alluvial soil occurred in the eastern part of the study area. Younger alluvium consists of stream deposits, gravel deposits, silty clay and light color sandy soils. Younger alluvium overlies the older alluvium of Quaternary, followed by Irrawaddy Formation of Pliocene age. Older alluvium is composed of silty clay, silty sand, sand and lateritic clay. Irrawaddy Formation is mainly exposed at the north western part of the project area. This Formation is characterized by alteration of mudstone and sandstone, sandy mudstone. The sandstone is underlying the mudstone and medium to coarse grain, highly loose and friable, grit and conglomerate with the subordinate bluish grey shale. Mudstone is of bluish grey color, moderately jointed, stiff and compact. Geological map of Yangon-Bago Regional area is shown in Figure 6-1.

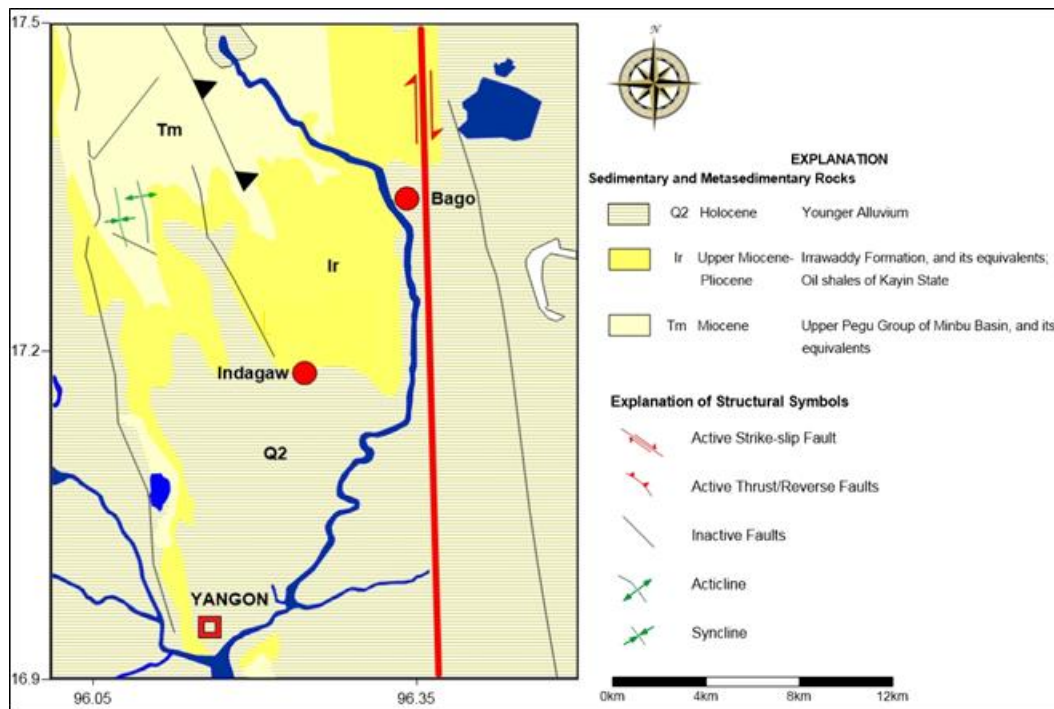


Figure 6-1 Geological Map of the project area

6.3.3. Soil

Soil is classified into categories in order to understand relationships between different soils and to determine the suitability of a soil for a particular use. It was based on the idea that soils have a particular morphology based on the materials and factors. A different classification system began to emerge which focused on soil morphology instead of parental materials and soil-forming factors. Since then, it has undergone further modifications. The World Reference

Base for soil resources (WRB) aims to establish an international reference base for soil classification. The study area is covered by Gleysol soil (GL) and Nitisol soil (NT).

(1) Gleysol occurs on wide range of unconsolidated materials, mainly fluvial, marine and lacustrine sediments of Pleistocene of Holocene age, with basic to acidic mineralogy. They are found in depression areas and low landscape positions with shallow groundwater. Wetness is the main limitation of virgin Gleysols; these are covered with natural swamp vegetation and lie idle or are used for extensive grazing. Artificially drained Gleysols are used for arable cropping, dairy farming and horticulture. Gleysols in the tropics and subtropics are widely planted to rice. They exhibit a greenish-blue-grey soil color due to anoxic wetland conditions. On exposure, as the iron in the soil oxidizes colors are transformed to a mottled pattern of reddish, yellow or orange patches. During soil formation (gleying), the oxygen supply in the soil profile is restricted due to soil moisture at saturation.

(2) Nitisol is a deep, red, well-drained soil with clay content of more than 30% and a blocky structure. These soils are found in the tropics and subtropics. Nitisols form from fine-textured material weathered from intermediate to basic parent rock and kaolinite, halloysite and iron oxides dominate their clay mineralogy. The natural vegetation on nitisols includes tropical rain forest and savannah. Limitations frequently include low phosphorus availability and low base status, but once ameliorated; these deep, stable soils have high agricultural potential, and are often planted to crops.

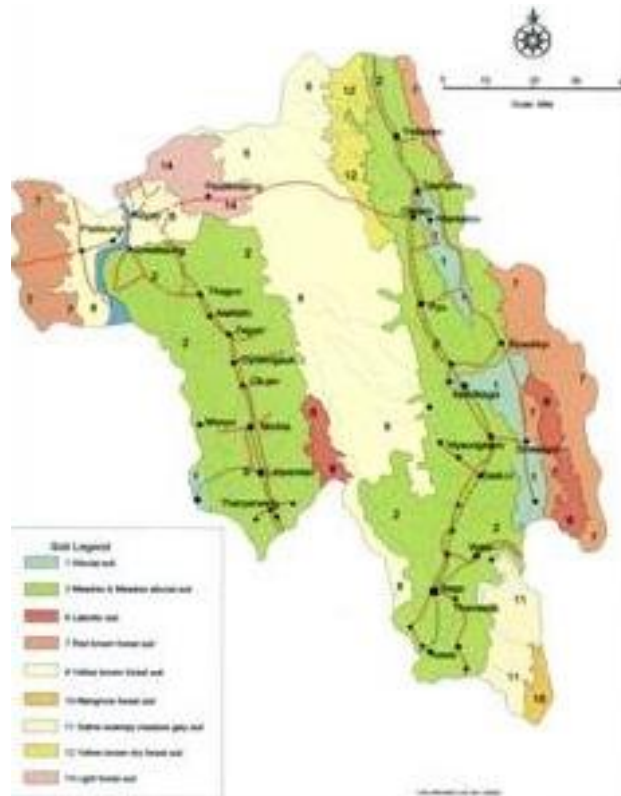


Figure 6-2 Soil Map of Bago Division

Figure 6-3 Land use map of Bago Township

6.3.5. Hydrology

The main river of Bago is organized from Bago Mountain range. It flows within the north-south direction, through Bago-Yangon. There are several tributaries of this river, and generated other water source in the area. Kolukwal Chaung, Latpan Chaung, Aungmya Chaung, Shwelaung Chaung and Salu Chaung are organized from North of Bogo Yoma range. There is tributaries flow in the Bago River.

6.3.6. Environmental Quality

The field observation for determining the environmental baseline of the proposed project area was undertaken during operation period. The survey team consists of the senior consultants and environmental quality team. The baseline data collected regarding the environmental condition of the project area was conducted in the following section. The environmental setting around the project site and monitoring location point is shown in Table 6-2.

Table 6-2 Environmental Setting around the Proposed Project Site

Particulars	Detail
Coordinate Point	17°15'3.19"N, 96°27'34.71"E
Climate Conditions (Department of Meteorology and Hydrology - DMH)	Annual Mean Maximum Temperature: (42°C) Annual Mean Minimum Temperature: (27°C) Annual Rainfall: 55.696 inches
Present land use at the proposed site	Industrial Land Use Type
Nearest Road	Bago Myo Shaung Road
Nearest Water bodies	Bago River
Forest Area	No Exist
Wetlands	No Exist
Protective Area	No Exist

6.3.6.1. Site Survey and Environmental Monitoring

The baseline environmental quality at the Project Site and its immediate surroundings was established by groundwater, wastewater, ambient air quality samples, noise and indoor temperature and humidity measurements at immediate surrounding areas to determine the existing baseline environmental quality within the project site on 16 August 2023. The overall conditions of air quality, water quality, soil quality, and noise levels are quoted from the project. The summary of the field survey for overall conditions is shown in Table 6-3.

Table 6-3 Summary of Environmental Survey

Type of Survey	Parameter	Description of Survey point
Outdoor Air Quality Monitoring Point	(1) Sulfur dioxide (SO ₂) (2) Carbon dioxide (CO ₂) (3) Nitrogen dioxide (NO ₂) (4) Ozone (O ₃) (5) Volatile Organic Compound (VOC), (6) Particulate Matter (PM ₁₀ and PM _{2.5}) (7) Temperature and Humidity	In front of the Office building (17°15'1.02"N, 96°27'35.28"E)
Noise Level	Indoor sound level (LAeq dB)	Stitching department (17°15'3.68"N, 96°27'33.29"E) Eva department (17°15'5.97"N, 96°27'36.09"E)
Light Intensity	(Lux)	Cutting Area, Warehouse, Quality Control, Stitching Area, Packing Area
Temperature and Humidity	Temperature (°C) and Humidity (%)	Eva department, Chemical storage area, Cutting Area, Stitching department
Stack Emission	(1) Sulfur dioxide (SO ₂), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO ₂), (4) Carbon dioxide (CO ₂)	Generator (17°15'6.73"N, 96°27'37.28"E)
Ground Water	pH, Turbidity, Total Solid, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese, Zinc	At Ground Tank (17°15'3.03"N, 96°27'38.11"E)
Domestic Wastewater	pH, Turbidity, TDS, TSS, Total Solids, Hardness, Chloride, BOD, COD, Iron, Manganese	At Factory Drainage (17°15'2.25"N, 96°27'31.82"E)



Figure 6-4 Environmental Quality Monitoring Map

6.3.6.2. Indoor Temperature and Humidity

Generally, office temperature and humidity are matters of human comfort. According to the Occupational Safety and Health Act of 1970_ Section III, Chapter 2, Subsection V of the OSHA Technical Manual, "Recommendations for the Employer", OSHA recommends temperature control in the 68-76 °F (20-25 °C) range and humidity control in the range of 20%-60%. The indoor temperature and humidity condition of the production area were measured during 16th August, 2023. As stated in the Table (4-3), the survey results are above the limitation of the OSHA Guidelines. The country weather situation may result in being over the limit on the factory's temperature and humidity.



Temperature and Humidity measure at Eva department



Temperature and Humidity measure at Chemical storage area



Temperature and Humidity measure at Cutting area



Temperature and Humidity measure at Sewing department

Figure 6-5 Temperature and Humidity Measurement Activities



Figure 6-6 Air Quality Monitoring (AQM – 09)

Table 6-5 Technical Feature of AQM-09

Items	Description	Specification
Particle monitor	Working principle	Light scattering technique
	Measurement data	PM _{2.5} , PM ₁₀ , TSP
	Measuring range	0~1000 µg/m ³
	Dehumidification	With the automatic dehumidification function module
Gas Module	Working principle	High precision Electrochemical sensor
	Gas monitor	SO ₂ , CO, NO ₂ , O ₃ , NO, VOC
	Sulfur Dioxide SO ₂	Measuring range: 0~1000ppb Resolution: 1 ppb Response time: <45 s
	Nitrogen Dioxide NO ₂	Measuring range: 0~1000ppb Resolution: 1 ppb Response time: <45 s
	Ozone O ₃	Measuring range: 0~1000ppb Resolution: 5 ppb Response time: <45 s
Carbon Monoxide CO	Measuring range: 0~200ppm Resolution: 0.1 ppm Response time: <45 s	

Table 6-6 Observed Outdoor Air Quality Results

Parameters	Survey Point	Observed value	Guideline value	Unit	Organization	Guideline Period
PM ₁₀	17°15'1.02"N, 96°27'35.28"E	25.45	50	µg/m ³	NEQEGs	24 hrs
PM _{2.5}	17°15'1.02"N, 96°27'35.28"E	23.27	25	µg/m ³	NEQEGs	24 hrs
NO ₂	17°15'1.02"N, 96°27'35.28"E	29.77	200	µg/m ³	NEQEGs	1 hr
SO ₂	17°15'1.02"N, 96°27'35.28"E	1.32	20	µg/m ³	NEQEGs	24 hrs
O ₃	17°15'1.02"N, 96°27'35.28"E	6.08	100	µg/m ³	NEQEGs	8 hrs

NEQEGs = National Environmental Quality (Emission) Guideline



Figure 6-7 Air Quality Measurement Photos

6.3.6.3.2 Computing the Air Quality Index

The United States Environmental Protection Agency (EPA) has developed an Air Quality Index that is used to report air quality. This AQI is divided into six categories indicating increasing levels of health concern. An AQI value over 300 represents hazardous air quality and below 50 the air quality is good.

AQI Values	Level of Health Concern	Colour
0 to 50	Good	Green
51 to 100	Moderate	Yellow
101 to 150	Unhealthy for sensitive group	Orange
151 to 200	Unhealthy	Red
2001 to 300	Very Unhealthy	Purple

301 to 500	Hazardous	Maroon
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The air quality index is a piecewise linear function of the pollutant concentration. At the boundary between AQI categories, there is a discontinuous jump of one AQI unit. To convert from concentration to AQI this equation is used;

$$I = \frac{I_{high} - I_{low}}{C_{high} - C_{low}}(C - C_{low}) + I_{low}$$

Where;

- I = the (Air Quality) Index
- C = the pollutant concentration
- C_{high} = the concentration breakpoint that is ≥ C
- C_{low} = the concentration breakpoint that is ≤ C
- I_{high} = the Index breakpoint corresponding to C_{high}
- I_{low} = the index breakpoint corresponding to C_{low}

Items	O ₃ (ppb)	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	SO ₂ (ppb)	NO ₂ (ppb)	AQI value	Level of health concern
	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	I _{low} - I _{high}	
Monitoring Result (Hour)	5.4-8 (8-hr)	8-57 (24-hr)	11-57 (24-hr)	1- 3 (24-hr)	23- 43 (1hr)	0-50	
Air Quality Index	13.08	15.58	15.75	8	16.93	8-16.93	Good

6.3.6.3.3 AQI and Health Implications

Measurement Stations	AQI Value (Good)	Health Implications	Recommended Precautions
Outdoor Air Quality	8-16.93	No health implications	Everyone can continue their outdoor activities normally.

6.3.6.3.4 Energy Consumption and Related CO₂ (GNG) emission

The proposed project will use 300 gallons per week of diesel for vehicles such as transportation vehicle and emergency use of a generator in the construction phase.

Both diesel and coal combustion are significant sources of greenhouse gases and pollutants, with impacts that extend beyond local air quality, contributing to global climate change and environmental degradation. Diesel generators, for instance, produce carbon dioxide (CO₂), nitrogen oxides (NO_x), and particulate matter (PM), which are released into the atmosphere and can significantly reduce air quality in surrounding areas. Every liter of diesel

generator considered for the study. Occupational Safety and Health Administration (OSHA) standard are used as references for assessing stack emission.

6.3.6.4.1 Methodology and Approach

On 16th August 2023, the concentrations of Carbon Dioxide, Carbon Monoxide, Sulfur Dioxide, and Nitrogen Dioxide in the emissions released by the project's generators were measured using the Oceanus OC - 1000 Portable Multi Gas Detector at 17°15'6.73"N, 96°27'37.28"E.

In this measurement, the sampling probe of the instrument is placed close to the generator exhaust to capture representative gas emissions. The instrument analyzes the gas sample using its sensor array, and the sampling rate is six times per minute automatically. It will detect and quantify the concentrations of specific gases present in the sample, such as carbon dioxide (CO₂), Sulphur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO).



Figure 6-8 OCEANUS (OC-1000 Gas and Dust Particle Detector)

Table 6-9 Technical Parameter of OCEANUS (OC-1000 Gas and Dust Particle Detector)

Product	Multi gas and dust particle detector
Measuring Range	Referring to the gas list
Resolution	Referring to the gas list
Gas type	At most for 5 sensors, the gas type will be according to your requirements.
Particle counter	Particle size of 0.3 μm, 10 μm (optional)
Measuring range	Temperature: -4~120C, Humidity: 0-100%RH

Testing mode	Pump-suction, inner pump, adjustable flow range (500-1000mL L/min), workable for the vacuum environment.		
Accuracy	≤±3% F.S	Linearity:	≤±1% F.S
Response time:	≤20s (T90)	Zero drift:	≤±1% (F.S/year)
Recovery time:	≤20s	Repeatability:	≤±1% F.S
Testing mode:	Real-time detecting or Timing detecting is adjustable.		
Data storage:	Automatic storage or manual storage is adjustable; About 100000 group of data capacity.		
Explosion-Proof grade:	Ex is IIC T4	Case Material	ABS+PC
Protection grade:	IP66	Working temperature:	-30~60°C
Working power:	4000 mA rechargeable lithium battery	Working humidity:	≤95%RH (non-condensing)
Size and weight:	220*85*55 mm (L×W×H) 0.5 Kg (Net weight)	Working pressure:	-30Kpa~100Kpa
Accessory:	Dust filter, box, instruction, USB charger, data line, calibration cap		

Table 6-10 Generator stack emission measurement

Location	Parameter	Observed Value	OSHA Guideline	Unit	Averaging Period
Generator Chimney (17°15'6.73"N, 96°27'37.28"E)	CO ₂	372	5000	ppm	8 Hours
	SO ₂	0	5	ppm	8 Hours
	NO ₂	0	5	ppm	8 Hours
	CO	0.69	50	ppm	8 Hours



Figure 6-9 Generator Stack Emission Measurement Activity

6.3.6.4.2 Summary of Stack Emission Measurement result

The detail of stack emission measurement result is shown in Table 6-10. It was observed that NO₂, SO₂, CO₂ and CO are within Occupational Safety and Health Administration (OSHA) standard. The generator stack emission monitoring result is presented in **Appendix D**.

6.3.6.5. Noise

There is no existing data for noise level in and around the project site. The Project is located in industrial zone and the dominant source of noise is probably from human and industrial activities. The primary sources of noise are mainly traffic conditions from the nearby main road. The purpose of this assessment is to reveal not only the existing baseline noise level but also to ascertain the noise quality being produced by the current project site and other factories located around the project site area. So, to know the noise level in the surrounding area due to the construction and operation activities from the project site.

6.3.6.5.1 Methodology and Approach

The Noise level was measured by using Digital Sound Level Meter for working hours on 16th August 2023 in Figure 6-11. The Noise level was measured by using Digital Sound Level Meter (Bentech, GM 1356) for parameter of A-weighted loudness equivalent (LAeq).



Figure 6-10 Digital Sound Level Meter (BENTECH, GM-1356)

Table 6-11 Technical Features of GM-1356

Sound Level Meter	GM - 1356
Measurement range	30~130dBA、 35~130dBC
Accuracy	±1.5dB (reference sound pressure standard, 94dB@1KHz)
Frequency response	31.5Hz~8.5KHz
Resolution	0.1dB
Measuring level	30 to 80, 50 to 100, 60 to 110, 80 to 130, 30 to 130
Dynamic range	50dB/100dB
Overload indication	OVER / UNDER
Frequency weighting characteristic	A and C
Digital display	4 digits
Analogy bar graph	1dB/1 bar graph
Sampling rate	FAST:8times/second; SLOW:2times/second
AC signal output	4Vrms/ full bar graph, output impedance is about 600 ohms
PWM signal output	Duty cycle =0.01X db value/3.3 x 100%
Dyna mic characteristic	FAST (high speed)/SLOW (low speed)
Calendar accuracy	±30seconds/day

noise level of the stitching department is within the allowable limit because factory operates the large machines simultaneously in Eva department. Therefore, obvious influence can be caused occupational health and safety of employees during operation. Moreover, Personal Protective Equipment (PPE) to decrease adverse impact of noise will be provided for employees when necessary. Noise measurement result and graph are presented in **Appendix D**.

6.3.6.6. Light

Activities of the workers in the shoe's factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in the shoe's factory is presented in Table 6-14. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in shoes factory is provided in Table 6-13.

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

Table 6-13 IESNA Lighting Handbook

Department	Type of Light	Wattage of Light	Lux Level
Fabric store	Fluorescent tube light	40 W	300
Sewing floor	LED tube light	20 W (T8)	400
Cutting floor	LED tube light	22 W (T8)	1000
Finishing	LED tube light	28 W (T8)	600
Inspection points	LED tube light	28 W (T8)	900 (except 1500 at audit tables)
Sampling	LED tube light	22 W (T8)	500
Office areas	Fluorescent tube light	36 W (T)	300



Figure 6-12 Light quality measurement

Table 6-14 Light measurement Result of Melody Global Company Limited

No	Location	Measure value (Lux)	Standard
1	Warehouse	312	300
2	Cutting Area	1022	1000
3	Quality Control	1078	900
4	Stitching Area	631	400
5	Packing Area	784	600

According to the monitoring results, the lighting levels at the Melody Global Factory are generally within the normal range. However, some areas require a reduction in light intensity to prevent excess brightness and minimize light pollution. In contrast, certain high areas would benefit from the installation of additional bulbs to ensure proper illumination. Additionally, some lower-light areas need more powerful bulbs to meet the required brightness levels for optimal visibility and safety. By strategically adjusting the lighting across the factory, both the overall efficiency and lighting quality can be improved. These changes will help in better managing energy use and significantly reducing light pollution in and around the facility.

6.3.6.7.2 Ground Water Quality Testing

The baseline data on groundwater quality was taken from the ground tank (17°15'3.03"N and 96°27'38.11"E) on 16th August, 2023, and tested in laboratory with respect to WHO Guidelines for Drinking Water Standard. Laboratory analysis results for ground water can be seen in **Appendix D**. The water quality of the nearest water features which are likely to be affected by the project was studied with the aim of understanding, preventing and minimizing water pollutions in the public water sources so as to ensure human health and biodiversity. Water quality is one of the key factors affecting the environment and health. Analyzed results of groundwater result compare with WHO Drinking Water Quality Standard, groundwater results of the whole factory. The collected samples factory groundwater result was tested at Ecological laboratory. According to the groundwater analysis results, all of the parameters except turbidity are normal, and within the limit of WHO Drinking Water Quality Standard.

Table 6-16 Groundwater Laboratory Analysis Result

No.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1.	pH	7.2	S.U	6.5-8.5	Normal
2.	Turbidity	8	FAU	≤5	Turbid
3.	Total Solids	104	mg/L	-	-
4.	Hardness	27	mg/L	≤500	Normal
5.	Chloride	2.1	mg/L	≤250	Normal
6.	Free Cyanide	<0.01	mg/L	-	-
7.	Arsenic	0.005	mg/L	≤ 0.05	Normal
8.	Copper	0.02	mg/L	≤2	Normal
9.	Iron	0.3	mg/L	≤1	Normal
10.	Lead	ND	mg/L	≤0.01	LOD=0.1 mg/L
11.	Manganese	<0.2	mg/L	≤0.4	Normal
12.	Zinc	<0.02	mg/L	≤3	Normal

“ND” = Not Detected

“LOD” = Lower limit of detection

“-“ = No Reference Standard



Figure 6-14 Domestic Waste Water Sample Collection

6.3.6.7.4 Summary of Water Testing Result

According to the drinking water and domestic wastewater analysis results, all parameters are within the limits. For the groundwater analysis, all parameters, except turbidity, are within the acceptable range outlined by the WHO standards. It is believed that the turbidity issue may have been influenced by the timing of the measurements, which were taken during the rainy season when lake algae levels were particularly high. After reviewing the results and consulting with the factory officials, it was determined that the water tank had been thoroughly cleaned, and the water was replaced to ensure continued compliance with quality standards. These corrective actions were taken promptly to maintain water safety. The detailed water quality monitoring results are provided in **Appendix D**.

6.3.1. Climate and Meteorology

The proposed project is located at Bago Township, Bago Region. The climate condition of Bago Township is the dry season of area in which the project lies starts in December and ends in March. The raining season starts in June and ends in September and the cold season follow with the cooler, drier months of October to January. The highest temperature ranging 39.8°C and low range 16.4°C reference from Township Meteorology data, Regional Data of Bago Township. 2016-2019 data of rainfall and temperature from Bago Administrative Department is presented in Table 6-18. According to the Department of Meteorology and Hydrology, monthly total rainfall data from 1995 to 2024 is shown in Table 6-19.

Table 6-18 Annual Rainfall and Temperature

No	Year	Rainfall		Temperature	
		Raining day	Rainfall value	Summer Season Max (°C)	Winter season Min (°C)
1	2016	136	126.38	41.5	14
2	2017	140	148.62	39.3	13
3	2018	131	123.47	40.2	13
4	2019	111	101.1	42.2	14.7

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

Table 6-19 Monthly Total Rainfall (mm)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	0	0	Trace	Trace	9.1	23.1	23.9	13.8	20.4	10.3	3.5	0
1996	0	2.3	0.2	1.8	11.6	21.8	18.1	24.7	22.3	8	5	0.3
1997	0	0	0	1.5	12.8	17.1	25.3	29.7	18.2	7.8	2	0
1998	0	0	0	0.4	11.9	16.7	12.9	18.4	6.4	7.8	0.4	0
1999	0	0	1.4	10.9	16.7	15.7	18.6	21.2	13.4	13.6	2.6	0
2000	0	Trace	0	3.9	10.1	21.9	13.9	13	16.2	6.5	0.1	0
2001	0	Trace	1.4	0	15	20.4	21.4	16.9	7.3	12.5	1.3	0.3
2002	0	0	0	0	6	3	23	0	0	0	29	0
2003	0	0	0	0	1	77	0	2	Trace	0	0	0
2004	0	0	0	0	25	2	0	2	Trace	0	0	0
2005	0	0	0	0	2	71	70	0	12	2	0	0
2006	0	0	Trace	12	12	25	63	11	Trace	0	0	0
2007	0	0	0	0	27	3	34	2	23	0	0	0
2008	0	0	17	85	9	7	18	0	0	0	0	0
2009	0	0	0	Trace	20	11	47	17	70	0	0	0
2010	0	0	0	0	35	Trace	10	5	4	0	0	0
2011	Trace	0	0	8	0	13	Trace	30	1	0	0	0
2012	0	0	0	Trace	9	1	24	10	Trace	0	23	0
2013	3	0	0	0	5	7	49	2	Trace	0	0	0
2014	0	0	0	0	4	1	34	0	3	4	0	0
2015	0	0	0	0	15	24	37	20	0	0	0	0
2016	0	0	0	0	70	0	19	15	29	0	0	0
2017	0	0	0	1	51	9	2	0	0	0	0	0
2018	0	0	0	0	29	39	6	3	7	0	0	0
2019	0	0	0	0	5	12	3	10	0	0	0	0
2020	0	0	0	46	24	Trace	2	3	21	1	0	0
2021	0	0	0	Trace	21	41	6	3				
2022	0	0.1	1.5	0.4	13.8	11.7	14.3	24.4	9.6	5.9	2.6	0.7
2023	0	0.8	0.2	0	4.1	25.7	17.6	14.1	17.7	13.6	0.9	1.4
2024	0	0	0	1.7	13.1	15.7						

“Trace” The amount of rainfall which cannot be measured

6.4. BIOLOGICAL COMPONENT

The project area is situated at U Paing No. (2+42), Kyay Tite Pyin Kwin, Mae Kone Village, Bago Township, Bago Region, and its topographic condition is flat. Therefore, the

proposed project site is not located in or near a sensitive ecosystem in the Bago Region. The proposed project activities are not affected to the changes of ecosystem in the Bago region.

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

6.5. SOCIO-ECONOMIC COMPONENT

6.5.1. Population

Melody Global Company Limited is located across Bago Township in Bago Region. In 2019, there are about people 439,622 in Bago Township as shown in Table 6-20.

Table 6-20 Population of Males and Females at Bago Township (2019)

Item	Older 18 year			Younger 18 year			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Urban	59,548	72,436	131,984	43,423	45,080	88,503	102,971	117,516	220,487
Rural	66,190	67,559	133,749	40,268	45,118	85,386	106,458	112,677	219,135
Total	125,738	139,995	265,733	83,691	90,198	173,889	209,429	230,193	439,622

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

6.5.2. Religion

The different kinds of religion present in Bago townships are shown in Table 6-21. More than 90% of the people living in the townships is Buddhists.

Table 6-21 Religion in Bago Township (2019)

Township	Buddhist	Christian	Hindu	Muslim	Other	Total
Bago	411,380	17,135	6,137	2,925	2,045	439,622

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

6.5.3. Local Economy

Among regional towns, Bago Township has a variety of businesses and services operating in the community with other businesses/services, based in the region. Most of the source of livelihood in the Township is agriculture. Services and facilities available include:

- Store
- Gold Shop
- Electrical Store

- Mobile/Service Store
- Book Shop
- Pharmacy
- Restaurants
- Tea Shop
- Hardware Store
- Agricultural Shop
- Construction Material Shop
- Services
- Rice Shop
- Fashion Shop
- Pagoda & Monastery Donation Accessories Shop

6.5.4. Public Infrastructure and Access

6.5.4.1. Communication and Transportation

Major transportation route in Bago Township are railway, port, and car road as presented in Table 6-22.

Table 6-22 Transportation route

Categories	Township		Distance	No
	From	to		
Railway (Pegu-Mandalay railway)	Pegu	Mandalay	40/1.2 miles	12
Railway (Pegu-Mawlamyaing railway)	Pegu	Mawlamyaing	26/1.2 miles	3
Inland Waterway (Pegu-Kin Paing kyong)	Pegu	Kin Paing Kyong	12 miles	
Inland Waterway (Pegu-Lat Pan Khone)	Pegu	Lat Pan Khone	7miles	
Inland Waterway (Baw Net Kyi-Zaung Tu)	Baw Net kyi,	Zaung Tu	25miles	
Bus Line (No-1 University)	Yan Kin Thar Hin Thar Kone Yan Kin Thar Malar Kyi	Ka Li University		77
Bus Line (Kyan Tine Aung)	Bago	Yangon		15
Three Wheels Bus Line No-3	Hin Thar kone	University Ba Htu Mahar Pagoda		55
Bus Line (Oke Thar)	Bago	Yangon		12
Bus Line(5)	Nyaung lay Pin-Bago	Yangon-(Dagon Ayar)		282

Categories	Township		Distance	No
	From	to		
		Yangon Nyaung lay Pin		
Bus Line(6)	Bago -Yangon	Kyite Hto		238
Bus Line (Phyo)	Bago	Yangon		23
Bus Line(8)	Bago	Khayan Kamar Sae		14
Bus Line(9)	Bago	One Nhae		2
Bus Line (Princess Express)	Bago	Taung Ngoo (Technological University)		14
Bus Line (11)	Bago	Zaung Tu Htan Taw Gyi		5
Three Wheels Bus Line (12)	Shwe Maw Daw Sein Thar Hlyaung So Shae lit 25	University Ba Htu Mahar Pagoda Oke Thar Golf Club Kyite Pa Dain That Nap Pin		213
Bus Line (13)	Bago	Htone Kyi		2
Three Wheels Bus Line (14)	Phat Tan-Pin Si A Way Pyay- Phat Tan	Shwe Thar Hlyaung Phat Tan University		50
Three Wheels Bus Line (15)	Kama Net-Ki Li	University Mahar Kyi Mahar Pagoda		110
Three Wheels Bus Line (15) (Kyan Tine Aung)	Construction Gate-Phayar Kyi	University Ki Li- A Wine Baw Net kyi		105
Bus Line (17)	Pyin Pone Kyi- Bago	Yangon		2
Three Wheels Bus Line (Phyo)	Shan Ywar Kyi	Bago Market		6

Categories	Township		Distance	No
	From	to		
Bus Line (Hein Thit)	Baw Net Kyi Rd Junction-Pharyar Kyi	Pegu Industrial Zone		42
Bus Line (Han Thar Waddy)	Wan Bel Inn (Day Soon Pr)-Bago	Inn Ta Kaw		47
Bus Line (Aye Chan Aung)	Inn Ta kaw-Bago University-Myo Shaung Rd-A Wine Village	Pharyar Kyi		20
Road (Yangon-Taung Ngoo-Mandalay)	32/6	70/tha	37 miles 2 furlongs	
Road (Yangon-Mawlamyaing-Myeik)	60/5	63/6	3miles 1 farlon	
Road (Pegu Myo Shaung Lan)	0/0	11/3.	11miles 3farlon	
Road (Pharyar Kyi-Baw Net Kyi-Zaung Tu-Tite Kyi Rd)	0/0	42/1.	42miles 1farlons	
Road (Tite ky-i-Phaung Kyi-Pegu Rd)	31/3	42/ya.	11miles 4farlons	
Road (Inn Takaw-Htone Kyi-Kawa-Ohn Hnan Rd)	0/0	7/7	7miles 7farlons	
Road (Pegu-Thatnap Pin-Khayan-Thanlynn Rd)	0/0	4/0	4miles	
Road (Government Ward Rd)	0/0	3/0	3miles	
Bago Bridge (Yangon- Mandalay) (4/50)			360ft	
Bridge (Pegu Myo Shaung Rd) (1/10)			486ft	
Bridge (Pegu Myo Shaung Rd) (8/11)			306ft	
Ko Lu Kwel Bridge (Zaung Tu- Tide Gyi) (1/29)			340ft	
Dawei Bridge (Bago - Zaung Tu) (1/42)			360ft	
Salu Bridge (Bago - Zaung Tu) (1/15)			260ft	
Shwe Laung Bridge (Bago - Zaung Tu) (6/22)			220ft	

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

6.5.4.2. Electricity

The electricity demand of Bago Township is higher and higher due to the normally increased in population and infrastructure. ^[1]

6.5.4.3. Education

Location of major schools were situated in Bago Region i.e., basic education primary school (B.E.P.S.), monastery teaching school, basic education middle school (B.E.M.S), basic education high school (B.E.H.S) and university, in the Bago Township. The name and located village tract/ ward of schools are described in Table 6-23.

Table 6-23 List of major school in Bago Township

No.	Name of School	Location
1	BAGO University	Oth Thar (8)
2	BEHS (1) BAGO	Office Ward
3	BEHS (2) BAGO	Market Ward
4	BEHS (3) BAGO	Zaine/ North
5	BEHS (4) BAGO	Okethar Myo Thit
6	BEHS (5) BAGO	Nan Taw Yar
7	BEHS (6) BAGO	Kalyar Ni
8	BEHS (7)	Yone Kyi
9	BEHS (8)	Him Thar Kone
10	BEHS (9)	Inn Takaw
11	BEHS (Phayar Kyi)	Pha Yar Kyi
12	BEHS (Pyin Pone Kyi)	Pyin Pone Kyi
13	BEHS (Htone Kyi)	Htone Kyi
14	BEHS (Kyaut Tan)	Kyout Tan
15	BEHS (Baw Net Kyi)	Baw Net Kyi
16	BEHS (Htan Taw Kyi)	Htan Taw Kyi
17	BEHS (Okkan)	Pha Yar Kyi City
18	BEHS (Zaung Tu)	Zaung Tu
19	BEHS (Branch) Wan Bal Inn	Wan Bal Inn Village
20	BEHS (Branch) (5)	Ma Zin Ward
21	BEHS (Branch) (8)	Ward No 7
22	BEHS (Branch) (1)	Kyaut Kyi Su
23	BEHS (Branch) Lat Pan Win	Lat Pan Win Village
24	BEHS (Branch) (7)	Ward No 3
25	BEHS (Branch) (4)	Shin Saw Pu

No.	Name of School	Location
92	BEMS (Branch) (Kan Baei)	Wan Bal Inn
93	BEMS (Branch) (Phayar Kalay)	Phayar Kalay
94	BEMS (Branch) (Pyin Pone Ywar Thit)	Pyin Pone Ywar Thit
95	BEMS (Branch) (Tha Man Kone)	Tha Man Kone
96	BEMS (Branch) (Nyaung Inn)	Nyaung Inn
97	BEMS (Branch) (Hlaw Kar)	Hlaw Kar
98	BEMS (Branch) (A Sate Taung)	A Sate Taung
99	BEMS (Branch) (Kan Myint)	Kan Myint
100	BEMS (Branch) (Tamar Pin)	Tamar Pin
101	BEMS (Branch) (Than So Pin)	Than So Pin
102	BEMS (Branch) (Under World)	Under World
103	BEMS Branch (War Paing)	War Paing
104	BEPS (Post) (121 nos)	Bago
105	BEPS (5 nos)	Bago
106	Pre School (16 nos)	Bago
107	Monastery Teaching School (Mingalar Yarma)	Nan Taw Yar
108	Monastery Teaching School (Mahar Pa Du Ma)	Kalyar Ni
109	Monastery Teaching School (Kyay Ni Kan-Oke)	Kalyar Ni
110	Monastery Teaching School (Kyay Ni Kan-Kyat)	Kalyar Ni
111	Monastery Teaching School (A Thaw Ka)	Zaine/North
112	Monastery Teaching School (Mahar Gu Ni Kar)	Inn Takaw
113	Monastery Teaching School (Sagaing)	Inn Takaw
114	Monastery Teaching School (Aung Pagoda)	Myo Thit
115	Monastery Teaching School (Gold Mountain)	Zaine/North
116	Monastery Teaching School (Nan Oo Shwe Pagoda)	Oke Thar 8
117	Monastery Teaching School (Dahmma Yadanar)	Zaung Tu
118	Monastery Teaching School (Aung Pyi Thar)	Ma Zine
119	Monastery Teaching School (Shwe Kyoung Kone)	Ma Zine
120	Monastery Teaching School (Dat Khi Na Yarma)	Phayar Kyi
121	Monastery Teaching School (Aye Say Ti)	Phayar Kalay
122	Monastery Teaching School (Pan Chan Kone)	Pan Chan Kone
123	Monastery Teaching School (Wae Lu Won)	Kyout tan
124	Monastery Teaching School (Ma Ni Yarma)	Wan Bae Inn

Myin Kyrr	16	Private
Thamardi	16	Private
Aung	16	Private
Swltaw	16	Private

6.6. CULTURAL AND VISUAL COMPONENTS

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

CHAPTER 7 **IMPACTS ASSESSMENT, RISK ASSESSMENT AND MITIGATION MEASURES**

7.1. **IMPACT ASSESSMENT METHODOLOGY**

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

The following methodology have been applied to assess the environmental impacts of the factory mainly on air, water, land, biodiversity, including human beings. Each source of impact had assessed by four parameters, magnitude, duration, extent and probability and each assess point have five scales as mentioned in Table 7-1.

Table 7-1 Impact assessment parameters and its scale

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

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

$$\text{Significant Point (SP)} = (\text{Magnitude} + \text{Duration} + \text{Extent}) * \text{Probability}$$

Impact Significance: Based on calculated significant point, impact significance is able to categorize as follows:

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

7.2. IMPACT IDENTIFICATIONS

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

7.2.1. Positive Impact

During the project implementation, local people can get job opportunities in administrative sectors, office works, transportation sectors, skill and unskilled workers, etc. Due to the implementation of the project, there will be employment opportunities especially for workers from the local community. Employees will also improve more in their professional knowledge and skills. The net effect of job creation is the improvement of the livelihoods and living standards of the beneficiaries and poverty reduction, development of local people's livelihood. Cause of the proposed project is located in Mae Kone Village, Bago Township, Bago Region, there may have business opportunities to local people.

7.2.2. Negative Impact

The following Figure 7-1 briefly described the potential negative impacts of the proposed project. There are four main types of impacts; impact on environmental resources, impact on ecological resource, impact on human and impact of waste generation.

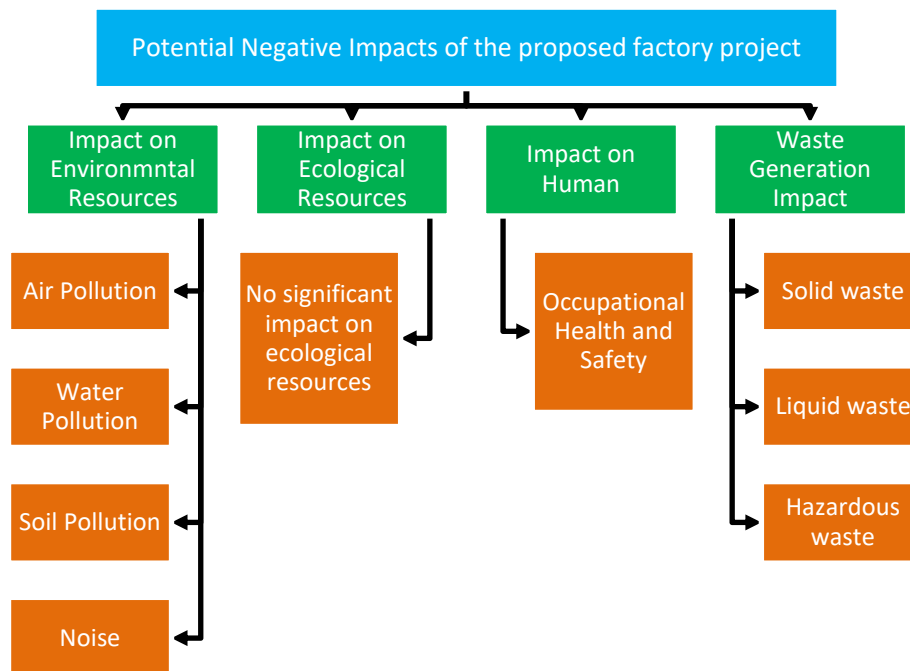


Figure 7-1 Potential negative impact affect from proposed factory project

Table 7-2 Evaluation and Perdition of Significant Impacts and mitigation measure for Operation Phase

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Effect
		M	D	E	P	SP		
Impact on Environmental Resource								
Air Quality	<ul style="list-style-type: none"> Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission from emergency diesel generator and boiler 	3	4	2	3	27	Low	<ul style="list-style-type: none"> Air pollution in atmosphere. Inhaling them can increase the chance you'll have health problems. People with heart or lung disease, older adults and children are at greater risk from air pollution.
Noise and Vibration	<ul style="list-style-type: none"> Generating noise from the respective production machines such as cutting, stitching/ finishing and packaging Generating noise from operating the boiler and generator 	3	4	2	4	36	Moderate	<ul style="list-style-type: none"> Repeated exposures to loud noise can lead to permanent tinnitus or hearing loss. Loud noise can create physical and psychological stress, reduce productivity, interfere with communication and concentration, and contribute to workplace accidents and injuries by making it difficult to hear warning signals.
Water Quality	<ul style="list-style-type: none"> Domestic wastewater from sinks, kitchens, toilets and machines washing The factory does not generate industrial wastewater 	2	4	2	2	16	Low	<ul style="list-style-type: none"> Domestic wastewater can reach groundwater and surface water via infiltration, leakage or direct discharge.

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Effect
		M	D	E	P	SP		
	<ul style="list-style-type: none"> Small amounts of hazardous waste such as fluorescent tube lights, batteries, machine oil containers, etc. 							
Natural Disaster (Earthquakes, Floods, landslides and cyclone Explosions, Equipment malfunctioning, mechanical and structural failures)	<ul style="list-style-type: none"> Natural disaster due to heavy raining, flooding from river Accidental cases cause by operating machines. 	4	4	3	3	33	Moderate	<ul style="list-style-type: none"> Accident in workplace (physical injuries or even death) can occur during operation.

wastewater system, the facility can minimize its environmental impact and align with the principles of the CMP framework.

7.3.2.2.4 Mitigation Measures for Soil Quality Impacts

To prevent soil contamination from potential fuel spills, an interception system with sand is placed beneath the diesel tank to contain and absorb any leaks. Additionally, the fuel storage area is paved with concrete, effectively minimizing the risk of soil contamination from oil spills. These measures ensure that any accidental fuel releases are managed promptly, reducing their impact on soil quality. Fly and bottom ash will be disposed of in well-managed, lined landfills designed to prevent leaching of contaminants into the soil. For long-term storage, dedicated containment areas such as ash ponds or sealed storage bins can prevent the spread of ash into the environment. Properly trained personnel are crucial for the effective management of fly ash and bottom ash. Regular training on environmental best practices, proper disposal methods, and safety standards will be provided for employees working with these materials.

7.3.2.2.5 Mitigation Measures for Odor Impacts

The odor may cause mild discomfort or irritation to workers in the immediate vicinity during the brief period it is present. Once the materials cool down and the odor dissipates, there are no lasting effects on the environment or workers. The odor is temporary and does not contribute to long-term air pollution or environmental degradation. Since the odor disappears within a few hours, any potential health effects are minimal and short-lived, without lasting consequences. To mitigate the temporary odor in the sole plate process and during the chemical mixing process, proper ventilation systems will be implemented in the workspace to help disperse the smell quickly. Using exhaust fans or air filtration systems can significantly reduce the concentration of odor in the air and improve air quality for workers. Additionally, workers will be provided with personal protective equipment (PPE), such as masks, during the brief period when the odor is most prominent, especially in the chemical mixing process where volatile substances may release stronger fumes. In the chemical mixing area, using sealed containers or enclosed mixing systems can further minimize the release of odors into the environment. By taking these proactive measures, both worker comfort and safety can be maintained while minimizing any potential disruption caused by the smell.

7.3.2.2.6 Mitigation Measures for Waste Generation Impacts

The factory is dedicated to responsible waste management in accordance with the guidelines, ensuring the proper handling and disposal of all waste generated during the production of footwear and outdoor sports products. The factory systematically collects production waste, including fabric scraps, plastic bags, cardboard, and other non-hazardous materials, which are sorted into designated bins and stored in compartments for efficient segregation. Melody Global partners with MJT Co., Ltd., a certified waste collection service, for the sorting, collection, and disposal of all waste—office, domestic and production—ensuring compliance with environmental regulations. Specially dedicated dustbins are

provided for waste segregation, promoting recycling and environmentally friendly disposal, while empty chemical containers are returned to suppliers for proper recycling or disposal. For hazardous waste, the company adheres to strict protocols, employing licensed carriers for safe transport and disposal in line with safety and environmental standards. To reduce the impact on water quality, the drainage systems surrounding the factory will be consistently maintained and cleaned by staff. Furthermore, measures must be taken to prevent oil and grease spills and leaks. Through these comprehensive waste management practices, Melody Global strives to minimize its environmental footprint and maintain a sustainable, environmentally responsible operation.

7.3.2.2.7 Mitigation Measures for Ecological Resources Impacts

To mitigate ecological impacts from proposed project, implement water-saving technologies and practices to reduce consumption. Enhance energy efficiency by using modern machinery and renewable energy sources. Manage waste effectively by recycling by-products and minimizing waste production. Control air emissions with appropriate filtration systems and manage chemicals to prevent contamination. Adopt sustainable land use practices to minimize disruption to local ecosystems.

7.3.2.2.8 Mitigation Measures for Health and Safety Impacts

To ensure a safe and healthy work environment, it is crucial to provide workers with essential training, including first aid, safety protocols, firefighting, and machinery handling to prepare for emergency situations. Personal Protective Equipment (PPE) such as earmuffs, safety gloves, helmets, and goggles will be supplied to protect workers from various hazards. To prevent electric shock risks, electrical maintenance staff should conduct regular inspections and take necessary preventive measures. Hazards must be reported and addressed immediately, with ongoing education provided to workers about potential dangers. Direct skin contact with diesel oil and chemicals must be avoided, and safe handling protocols will be established. The drainage system will be managed effectively, and noise and light intensity levels will be kept within safe limits. Cooling systems and regular breaks are essential to prevent heat stress, while protective gear and established protocols should ensure the safe handling of chemicals. Machinery will be equipped with safety guards, and workers will be trained to avoid injuries. Additionally, noise-reducing equipment and hearing protection will be provided to prevent hearing loss.

7.3.2.2.9 Mitigation Measures for Natural Disasters

As part of mitigation measures for natural disasters, it is essential to preserve relevant records and equipment to facilitate a thorough investigation into the cause and circumstances of any emergency. This includes maintaining detailed documentation of safety protocols, emergency response plans, and any equipment used during the disaster. Such records will be invaluable for analyzing the incident, identifying weaknesses in preparedness, and improving future responses. Additionally, all emergency equipment will be inspected regularly and kept

in operational condition to ensure its effectiveness when needed. This proactive approach helps to minimize the impact of natural disasters, ensuring a more efficient and informed recovery process.

7.3.2.2.10 Improvement Measures for Socio-economic Impacts

To enhance the socio-economic benefits, implement job training programs to improve workers' skills and career prospects. Source materials locally to support regional businesses and boost the local economy. Invest in community development and infrastructure projects to foster regional growth. Ensure fair wages for workers to improve their standard of living and economic stability. Additionally, provide support and technical assistance to local rice producers to increase their productivity and profitability.

7.3.3. Impacts Assessment and Mitigation Measures During Decommissioning Phase

7.3.3.1. Impacts Assessment During Decommissioning Phase

The proposed investment duration is 50 years, with the lease term beginning upon the signing of the Lease Agreement between the local landowner and Melody Global Company Limited for the 13.92-acre project site. The land and building will be returned to the landowner once the operations are concluded. As a result, an assessment is not required during the decommissioning phase. The landowner will represent both phases of the operation. However, if the landowner decides to demolish the factory, a mitigation and monitoring plan for environmental impacts will be necessary. Therefore, an environmental assessment team will be engaged to develop and implement a monitoring plan during the decommissioning phase.

Table 7-3 Evaluation and Perdition of Significant Impacts and mitigation measure for Decommissioning Phase

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason
		M	D	E	P	S		
Air	<ul style="list-style-type: none"> Demolish of buildings and related materials Transportation of demolished materials 	3	1	2	3	18	Low	Emissions of particulate matters and carbon dioxide gases into the air
Water pollution	<ul style="list-style-type: none"> Sewage form decommissioning workers Demolition machinery equipment 	2	1	1	3	12	Very Low	Contamination of surface water and ground water
Noise and Vibration	<ul style="list-style-type: none"> Decommission activities Transportation of demolished materials 	3	1	2	3	18	Low	Noise pollution to the surrounding
Solid Waste	Demolished debris such as bricks, concrete materials	3	1	2	4	24	Low	Dumping to the surrounding environment
Hazardous waste	Fuel/ Chemical Containers	3	1	2	3	18	Low	Spillage of lubricant
Occupational Health and Safety	<ul style="list-style-type: none"> Decommissioning activities Transportation of demolished materials 	3	1	1	3	15	Low	Injuries and accidents

7.3.3.2. Mitigation Measures During Decommissioning Phase

7.3.3.2.1 Mitigation Measures on Air Quality

During the decommissioning phase, several mitigation measures will be implemented to protect air quality. Water will be sprayed twice a day to minimize dust generation, ensuring that the surrounding environment remains dust-free. Additionally, a mesh trap will be placed around the decommissioned area to further contain any particulate matter. To reduce the impact of airborne dust and debris, a shading net will be installed approximately 2 meters above the temporary fence surrounding the decommissioning area, providing an extra layer of protection. Any broken materials will be transported with covers made of canvas to prevent dust and particles from becoming airborne during removal. These measures are designed to minimize air pollution and ensure a safer, cleaner environment throughout the decommissioning process.

7.3.3.2.2 Mitigation Measures of Noise Emission

During the decommissioning phase, several measures will be implemented to mitigate noise pollution and protect air quality. All activities will be carried out during the daytime to minimize disruption to the surrounding community. Machines and vehicles used on-site will be regularly maintained to ensure optimal performance and reduce emissions, thereby minimizing air pollution. Additionally, workers will be provided with earplugs to protect them from noise exposure and ensure their safety. These steps aim to minimize both noise and air pollution, ensuring a safer and more environmentally responsible decommissioning process.

7.3.3.2.3 Mitigation Measures on Water Quality

During the decommissioning phase, several measures will be implemented to protect water quality. To prevent contamination, all potential sources of runoff, such as construction debris and materials, will be carefully managed. Sediment barriers and silt fences will be installed around the decommissioned area to control the flow of water and reduce the risk of sedimentation into nearby water bodies. Additionally, any water used for dust control or cleaning will be carefully monitored to ensure it does not discharge contaminants into the environment. Proper storage and disposal of any chemicals or hazardous materials will be maintained to prevent spills or leaks that could impact water quality. These measures are intended to safeguard water resources and prevent pollution during the decommissioning process. The septic tanks will be carefully demolished in a controlled manner to prevent any release of contaminants into the surrounding environment. Prior to demolition, the tanks will be emptied and cleaned.

7.3.3.2.4 Mitigation Measures on Soil Quality

During the decommissioning phase, measures will be put in place to effectively manage the spillage of oil, diesel, and sewage to protect soil quality. Any potential leaks or spills from machinery, vehicles, or other equipment will be promptly contained using absorbent

materials and spill containment systems. Proper storage and handling procedures will be followed to prevent accidental releases of hazardous substances. Additionally, sewage will be carefully managed and disposed of in accordance with environmental regulations to prevent contamination of the soil. These actions will help ensure that the soil remains uncontaminated and safe throughout the decommissioning process.

7.3.3.2.5 Mitigation Measures on Waste Generation

The effective management of solid, liquid, and hazardous waste will be prioritized to minimize environmental impact during the decommissioning process. All recyclable materials will be carefully sorted and transported to designated recycling areas to ensure they are properly processed. Diesel containers will be recycled in accordance with regulations to prevent any contamination. Hazardous waste will be handled with utmost care, and a waste collection service will be engaged to ensure its safe disposal. This will include the proper treatment and disposal of materials such as chemicals, oils, and other hazardous substances to prevent harm to the environment. These measures are aimed at reducing waste, promoting recycling, and ensuring safe disposal practices during the decommissioning process.

7.3.3.2.6 Mitigation Measures for Ecological Resources Impacts

To mitigate these ecological impacts, several measures will be implemented. First, minimize soil disruption by planning and executing decommissioning activities in a way that reduces ground disturbance. Use containment systems to manage and safely dispose of residual chemicals and waste materials to prevent contamination of soil and water. Employ dust suppression techniques, such as water spraying or dust barriers, to limit air pollution during demolition. Restore disturbed land by replanting native vegetation and rehabilitating habitats to support local wildlife and plant life.

7.3.3.2.7 Mitigation Measures for Health and Safety Impacts

During the decommissioning phase, a range of mitigation measures will be implemented to ensure occupational health and safety. Protective fencing or clear demarcation with tape will be installed at the boundaries of hazardous zones, accompanied by appropriate warning signs, markings, and safety notices to alert workers of potential dangers. A lost time injury notice board will also be displayed to monitor and raise awareness of safety incidents. Excessive waste debris and liquid spills will be cleaned up regularly to maintain a safe working environment. Additionally, hazardous materials will be identified and removed by third-party experts, assisted by trained personnel, to ensure proper handling and disposal. These measures are designed to minimize risks and protect the health and safety of all personnel during the decommissioning process.

7.3.4. Risk Assessment and Mitigation Measures During Operation Phase

Melody Global Company Limited has determined that a flood risk assessment is not necessary for its operations, as flooding is not considered a significant concern at the company's

location. Instead, the primary risks that require attention are fire hazards and Occupational Health and Safety (OHS) concerns during operation phase. The company focuses on identifying potential fire risks, such as flammable materials and faulty electrical equipment, and ensuring that appropriate fire prevention measures are in place, including fire extinguishers and sprinkler systems. Additionally, OHS is a top priority, with efforts concentrated on minimizing workplace hazards, providing proper safety training, and maintaining a healthy and safe environment for all employees. Regular reviews and updates of safety protocols are carried out to ensure ongoing compliance and risk mitigation.

7.3.4.1. Fire Safety

7.3.4.1.1 Fire Hazard Identification and Risk Assessment

Material Storage: The raw materials used for manufacturing footwear and outdoor sports products (such as plastics, leather, rubber, adhesives, and other chemicals) may be highly flammable. The risks are associated with the storage, handling, and transportation of these materials.

Manufacturing Process: Identify fire hazards associated with the machinery, equipment, and production processes, such as high-temperature operations, electrical equipment, and potential for spontaneous combustion.

Waste Management: Improper disposal of waste materials (e.g., material scraps, rubber, or chemical containers) could increase the risk of fire.

7.3.4.1.2 Fire Prevention Measures

Material Handling and Storage: Ensure the safe storage of flammable materials away from heat sources. Use appropriate containers and labeling for hazardous chemicals.

Electrical Safety: Conduct regular maintenance and inspections of electrical installations to prevent faults and overheating. Ensure that electrical equipment is rated for use in the environment and properly grounded.

Ventilation Systems: Implement proper ventilation systems to prevent the buildup of flammable fumes, especially when using chemicals or solvents in the manufacturing process.

Employee Training: Regular fire safety and emergency response training for all employees, including procedures for dealing with small fires and preventing ignition sources.

7.3.4.1.3 Fire Protection Systems

Fire Extinguishers: Provide a sufficient number of fire extinguishers, including Class A, B, and C fire extinguishers, strategically placed in key areas such as production floors, storage areas, and workshops.

Sprinkler System: Install an automatic fire sprinkler system that covers all production areas and storage spaces.

Fire Alarm System: Install smoke detectors and fire alarms throughout the facility, ensuring they are linked to local emergency services.

Fire Blankets and Sand Buckets: Place fire blankets and sand buckets in areas prone to small fires, particularly in material handling areas.

Dealing with Chemical Fires:

No	Chemical Name	Flame	Suitable Extinguishing Media	Unsuitable Extinguishing Media
1.	Barium Sulfate BA-60	Does not burn or support combustion	-	-
2.	Eva Color Master Batch		Water, Foam and Powder extinguisher	
3.	White Carbon		All extinguishing substances suitable	
4.	Calcium Carbonate	Does not burn or support combustion	-	-
5.	Titanium Dioxide	Not a fire or explosion hazard	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	
6.	Rubber Grade Stearic Acid		Dry powder, carbon dioxide or foam.	Water jet
7.	Azodicarbonamide foaming agent		Water Spray, alcohol- resistant foam, dry chemical or carbon dioxide	
8.	Auxiliary AC670		Foam, water spray, carbon dioxide or dry chemical	
9.	Zinc Oxide		In adaption to materials stored in the immediate neighborhood.	
10	Rubber Accelerator MBT		Water Fog, CO2, foam, dry chemical	Water spray

7.3.4.1.4 Emergency Response Plan

Evacuation Plan: Develop and clearly mark evacuation routes throughout the facility. Conduct regular fire drills to ensure employees know the quickest exit routes.

Assembly Points: Designate safe assembly points away from the building, where employees will gather in the event of an evacuation.

Emergency Response Team: Identify key personnel responsible for fire response and designate fire warden positions within the facility.

First Aid Kits: Ensure accessible first aid kits are available at strategic locations, and personnel are trained in their use for fire-related injuries.

Coordination with Local Authorities: Establish communication with local fire departments and emergency services. Provide them with facility layout plans and hazardous material inventories to ensure a quick response in case of a fire.

7.3.4.1.5 Maintenance and Inspection

Routine Inspections: Conduct regular inspections of all fire safety equipment, including fire extinguishers, alarms, sprinklers, and emergency exits.

Maintenance Schedules: Set up a maintenance schedule to ensure that all fire protection systems are in working order and replace any expired or damaged equipment promptly.

Fire Drills: Conduct fire drills regularly to test the effectiveness of evacuation plans and the readiness of employees to act in the event of a fire.

7.3.4.1.6 Record Keeping and Reporting

Incident Reporting: Implement a system for reporting and documenting any fire incidents, near-misses, or hazards identified within the facility.

Training Logs: Keep detailed records of all fire safety training programs and drills conducted for employees.

Inspection and Maintenance Records: Maintain records of fire safety equipment inspections and maintenance activities.

7.3.4.1.7 Compliance with Fire Safety Regulations

Ensure that the fire safety plan complies with national and local fire safety codes, building regulations, and standards. Include details on compliance with the The Myanmar Fire Brigade Law (2015), The Electricity Law (2014), Occupational Safety and Health Administration (OSHA) standards, and any industry-specific requirements for footwear and sports product manufacturing.

This fire safety plan should be reviewed regularly, updated as necessary, and shared with all employees to ensure their awareness and compliance with fire safety protocols.

7.3.4.2. Occupational Health and Safety (OHS)

Risk Assessment of Occupational Health and Safety (OHS) for Melody Global Co., Ltd., a company involved in the manufacturing of footwear and outdoor sports products, under the CMP Basis, involves identifying, evaluating, and controlling hazards associated with various activities, machinery, and materials within the manufacturing environment. Here's an approach for the risk assessment:

7.3.4.2.1 Identifying Hazards

Various processes in the manufacturing of footwear and outdoor sports products carry potential hazards, which can affect the health and safety of workers. The primary activities involved typically include:

Material Handling: Raw materials such as rubber, leather, plastics, textiles, and chemicals are frequently handled.

Machinery and Equipment: Use of industrial sewing machines, cutting machines, molding machines, and presses.

Chemical Exposure: Handling adhesives, dyes, paints, and other chemicals in the production process.

Assembly and Packaging: Workers involved in assembling, packaging, and labeling finished products.

Logistics and Storage: Storing raw materials and finished goods, which may create fire or slip hazards.

7.3.4.2.2 Risk Assessment Framework (CMP Basis)

Under CMP, risks are evaluated by considering the cumulative impact of multiple processes and activities, each contributing to the overall risk exposure. The framework includes:

7.3.4.2.2.1 Physical Risks

Machinery and Equipment Injuries: Operators are at risk of injuries from moving parts, cutting machines, or other equipment.

Manual Handling: Workers lifting, carrying, or moving heavy materials or products may suffer from musculoskeletal injuries.

Slips, Trips, and Falls: Wet floors, poorly maintained equipment, and cluttered workspaces increase the risk of falls.

7.3.4.2.2.2 Chemical Risks

Inhalation of Toxic Fumes: Exposure to fumes from adhesives, paints, dyes, or solvents can lead to respiratory problems.

Skin Contact: Direct contact with chemicals can cause skin irritation, burns, or allergic reactions.

7.3.4.2.2.3 Ergonomic Risks

Poor Workspace Design: Improper workstation height or seating positions can lead to neck, back, and eye strain.

7.3.4.2.2.4 Environmental Risks

Noise Exposure: Prolonged exposure to loud machinery and tools can lead to hearing loss.

Temperature Extremes: Workers in certain areas may be exposed to high temperatures due to machines.

7.3.4.2.2.5 Fire and Explosion Risks

Flammable Materials: Chemicals used in production or packaging (such as adhesives, paints, and solvents) are flammable and could lead to fires or explosions if not handled properly.

Electrical Hazards: Poorly maintained electrical systems or malfunctioning machines can pose fire risks.

7.3.4.2.3 Risk Evaluation

Each identified hazard is assessed in terms of:

Likelihood of Occurrence: The probability that the hazard will result in an incident.

Severity of Consequences: The potential impact on health and safety (ranging from minor injury to fatality).

Exposure Frequency: How often workers are exposed to the risk.

7.3.4.2.4 Control Measures

Implementing effective controls to minimize or eliminate risks is critical. These measures can be categorized as follows:

7.3.4.2.4.1 Engineering Controls

Ventilation Systems: Proper ventilation or extraction systems to minimize exposure to fumes, dust, and airborne chemicals.

Ergonomic Workstations: Adjust workstations to ensure workers can maintain good posture and avoid repetitive strain.

7.3.4.2.4.2 *Administrative Controls*

Training and Education: Provide regular OHS training for all workers, including handling hazardous materials and using equipment safely.

Shift Rotation: Implement job rotation to reduce the impact of repetitive tasks and minimize fatigue.

PPE Usage: Ensure all workers are provided with appropriate personal protective equipment (PPE), such as gloves, masks, goggles, ear protection, and flame-resistant clothing.

7.3.4.2.4.3 *Personal Protective Equipment (PPE)*

Respiratory Protection: Use face masks or respirators to prevent inhalation of harmful fumes or particles.

Protective Gloves: To prevent chemical burns, cuts, or abrasions during material handling or processing.

Hearing Protection: In high-noise areas to protect workers from hearing damage.

7.3.4.2.4.4 *Emergency Preparedness*

Fire Safety: Ensure the availability of fire extinguishers, sprinkler systems, and proper training for workers in case of a fire emergency.

First Aid: Provide readily available first aid kits and ensure workers are trained in basic first aid.

7.3.4.2.4.5 *Monitoring and Review*

Regularly monitor and review the effectiveness of the control measures in place:

Incident Tracking: Document and analyze incidents, near misses, and health-related concerns to identify trends and areas for improvement.

Audit and Inspections: Conduct regular safety audits and inspections to ensure compliance with OHS standards.

CHAPTER 8 PUBLIC CONSULTATION MEETING

8.1. PUBLIC CONSULTATION MEETING

The public consultation meeting was held on September 17, 2024. The invitation letters were sent to government organizations and local residents near the project site. Information about Melody Global Co., Ltd., the third-party company, and the project background is presented in the PCM. Consultations and suggestions were discussed and collected. A list of the organizations and local residents who received the invitation letters is shown in Table 8-1, and the invitation acceptance letter is attached in the Appendix.

Table 8-1 List of Organization and Locals Sending Invitation Letters

Organization	Address	Photos
Government Organizations, Locals and Third-Party	Environmental Conservation Department (ECD)	Melody Global Co., Ltd. စီ လူထုထွေဆုံးပွဲအခမ်းအနားအတွက် စိတ်စာလက်ခံရေးဦးစီးဌာန
	General Administration Department (GAD)	စဉ် အမည် ဌာန/အဖွဲ့အစည်း ဆက်သွယ်ရေးဖုန်းနံပါတ် လက်မှတ်
	The Bago City Development Committee	၁ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၇၂၉ - စ.
	Myanmar Fire Services Department	၂ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
	Factories and General Labour Laws Inspection Department	၃ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
	Department of Public Health	၄ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
	Directorate of Industrial Supervision and Inspection	၅ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
	Bago Township Administrator	၆ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
	Bago Industrial Zone Committee	၇ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
	Jotun Myanmar Co., Ltd.	၈ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
	Myanmar New Hope Farms Co., Ltd.	၉ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
	Sunjin Myanmar Co., Ltd.	၁၀ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
		၁၁ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.
	၁၂ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.	
	၁၃ ဦးစိုးကျော်စွာ ၀၉-၇၅၀၂၅၅၆၆၅၇ - မ.စ.	

8.1.1. Summary of Public Consultation Meeting

Public Consultation Meeting of Melody Global Co., Ltd. was held at Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar. The event was planned to be held starting from 11:00 AM to 12:15 PM.

As seen in Table 8-2, Daw Wint Zar Ni Mg Mg (Environmental Consultant-Thirty Party) began the ceremony by Announcing the Agenda. Then, as shown in Table 8-2, U Aye Lin Tun (Assistant Manager of Melody Global Co., Ltd.) gave the introduction speech for their project. The project background, project description, potential effect evaluation, and management technique were subsequently presented by Daw Wint Zar Ni Mg Mg (Environmental Consultant-Thirty Party). A summary of the public consultation meeting is provided in Table 8-3, which is below.

Table 8-2 Summary of Public Consultation Meeting


Time and Date	September 17, 2024 (Tuesday)	
	Collecting the attendance lists and making announcements about the ceremony's agenda	Environmental Consultant 11:00-11:10 AM
	Giving an introduction speech for the project by the responsibility person of Melody Global Co., Ltd.	Manager (Melody Global Co., Ltd.) 11:00-11:20 AM
	Presentation of Environmental Impact Assessment Report of Melody Global Co., Ltd. <ul style="list-style-type: none"> • Introducing to Melody Global Co., Ltd. • Overview of topics related to environmental impact assessment report • Clarification of Project activities, Baseline Studies and mitigation methods • Overview of the environmental monitoring program 	Environmental Consultant 11:20-11:45 AM
	General discussion and suggestions from the attendees	11:45-12:10 PM
	Announcing the end of the ceremony	12:10-12:15 PM
Location	Meeting Room of Melody Global Co., Ltd., Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar	
Government organizations, locals and third-party attending the meeting	Environmental Conservation Department (ECD) Myanmar Fire Services Department Factories and General Labour Laws Inspection Department Department of Public Health Directorate of Industrial Supervision and Inspection Jotun Myanmar Co., Ltd. Myanmar New Hope Farms Co., Ltd. Sunjin Myanmar Co., Ltd. E Guard Environmental Services Melody Global Co., Ltd.	
Attendees	17 people	


8.1.1. Questions & Answers Session


Following the presentation of the project's background, description, environmental impact assessment, and management procedure, the participants' questions and responses are as follows. Table 8-3 lists the concerns and suggestions from the public meeting for consultation. Photos of Suggestion in Public Consultation Meeting are as shown in the following table.


Table 8-3 Questions & Answers and Suggestions of Public Consultation Meeting

No	Description	Photos
<p>1.</p>	<p>ဦးအေးလင်းထွန်း (လက်ထောက်မန်နေဂျာ၊ Melody Global Co., Ltd.)</p> <ul style="list-style-type: none"> Melody Global Co., Ltd. ၏ လက်ထောက်မန်နေဂျာ ဦးအေးလင်းထွန်းမှ စက်ရုံစတင်တည်ထောင်ခဲ့ပုံ၊ ထုတ်လုပ်မှု လုပ်ငန်းစဉ်များနှင့် ထုတ်ကုန်များအကြောင်း၊ စက်ရုံ၏ လည်ပတ်နေမှုများနှင့် လက်ရှိ ဆောင်ရွက်နေမှုများအကြောင်း၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ထိခိုက်မှုလျော့နည်းစေရန် ဆောင်ရွက်ထားမှုများအကြောင်း တက်ရောက်လာသူများအား အသေးစိတ် ရှင်းလင်းတင်ပြခဲ့ပါသည်။ 	
<p>2.</p>	<p>ဒေါ်ဝင်းဇာနည်မောင်မောင် (Environmental Consultant-Third Party)</p> <ul style="list-style-type: none"> Environmental Consultant ဒေါ်ဝင်းဇာနည်မောင်မောင်မှ Melody Global Company Limited ၏ CMP စနစ်ဖြင့် Footwears and Outdoor Sports Products ထုတ်လုပ်ခြင်းလုပ်ငန်းအတွက် ကနဦး ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း အစီရင်ခံစာနှင့် ပတ်သတ်၍ တက်ရောက်လာသူများအား ရှင်းလင်း တင်ပြခဲ့ပါသည်။ ဆွေးနွေးတင်ပြခဲ့သည့် အကြောင်းအရာများမှာ Melody Global Company Limited ၏ CMP စနစ်ဖြင့် Footwears and Outdoor Sports Products ထုတ်လုပ်ခြင်း လုပ်ငန်းအား မိတ်ဆက်ခြင်း၊ ကနဦးပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း လုပ်ငန်း၏ လုပ်ငန်းစဉ်များအား မိတ်ဆက်ခြင်း၊ ပတ်ဝန်းကျင်အရည်အသွေး တိုင်းတာမှုရလဒ်များကို ရှင်းလင်းခြင်း၊ စီမံကိန်းကြောင့် ပတ်ဝန်းကျင်အပေါ် သက်ရောက်နိုင်မှုများနှင့် လျော့နည်းစေရေး လုပ်ဆောင်ထားမှုများကို ရှင်းလင်းခြင်းနှင့် စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်များအား အသေးစိတ်ရှင်းလင်းခဲ့ပါသည်။ 	

No	Description	Photos
3.	<p><u>Suggestions</u> ဦးအောင်သူကျော် (ညွှန်ကြားရေးမှူး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန)</p> <ul style="list-style-type: none"> • အမှိုက်စွန့်ပစ်ရာတွင် MJT အဖွဲ့အစည်းမှာ ပဲခူးစည်ပင်သာယာရေးကော်မတီ၏ လိုင်စင်ရ အဖွဲ့အစည်းဖြစ်သော်လည်း အမှိုက်သိမ်းရန်အတွက်သာဖြစ်ပြီး ဖျက်ဆီးရန် ခွင့်ပြုထားခြင်းမရှိသည့်အတွက် အန္တရာယ်ရှိစွန့်ပစ်အမှိုက်များကို MJT အဖွဲ့အစည်းဖြင့် စွန့်ပစ်ခြင်းမှာ အဆင်မပြေကြောင်း၊ • စက်ရုံသည် ဆိုးလ်ပြားလုပ်ငန်းစဉ်များပါဝင်သည့်အတွက် အနံ့ထွက်ရှိမှု အခြေအနေအား သိရှိလိုကြောင်း၊ • စက်ရုံမှ သုံးစွဲသည့် ဓာတုစွန့်ပစ်ပစ္စည်းအမျိုးအစားသည် ထိန်းချုပ်ဓာတုစာရင်းတွင် ပါဝင်နေပါက ခွင့်ပြုမိန့်လျှောက်ထားပြီးမှ သုံးစွဲရမည်ဖြစ်ကြောင်း၊ ထို့ပြင် သယ်ယူမှု/ သိုလှောင်မှု/ သိမ်းဆည်းမှု/ သုံးစွဲမှု/ စွန့်ပစ်မှု လုပ်ငန်းစဉ်အားလုံး၌လည်း သေချာဆောင်ရွက်ရန် လိုအပ်ကြောင်း၊ • စက်ရုံဝန်ထမ်းများအနေဖြင့် မိမိအသုံးပြုသည့် ဓာတုပစ္စည်းများအကြောင်း သေချာစွာ သိရှိထားရန် လိုအပ်ကြောင်း အကြံပြုပြောကြားခဲ့ပါသည်။ <p><u>Explanation and Response</u> ဦးအေးလင်းထွန်း (လက်ထောက်မန်နေဂျာ၊ Melody Global Co., Ltd.)</p> <ul style="list-style-type: none"> • ဆိုးလ်ပြားလုပ်ငန်းစဉ်၌ ကုန်ကြမ်းများ ဟိုက်ဒရောလစ်ဖိစက်မှ ထွက်လာသည့် အချိန်မှစ၍ နေ့စဉ်အခန်းသာ အနံ့ရှိခြင်းဖြစ်ပါကြောင်း၊ အေးသွားသည့်အခါ အနံ့ထွက်ရှိမှု မရှိတော့ပါကြောင်း၊ • ဓာတုစွန့်ပစ်ပစ္စည်းနှင့်ပတ်သတ်၍ ၎င်းတို့၏ Material Safety Data Sheet (MSDS) ပါ အချက်များအတိုင်း သေချာဆောင်ရွက်လျက် ရှိပါကြောင်း၊ အခြားသော 	

No	Description	Photos
	<p>အကြံပြုချက်များအတိုင်းလည်း လိုက်နာဆောင်ရွက်မည် ဖြစ်ပါကြောင်း ပြန်လည် ဖြေကြားခဲ့ပါသည်။</p> <p>ဒေါ်ဝင်းဇာနည်မောင်မောင် (Environmental Consultant)</p> <ul style="list-style-type: none"> • အကြံပြုချက်များအတိုင်း စက်ရုံဘက်မှ လိုက်နာဆောင်ရွက်သွားနိုင်စေရန် အစီရင်ခံစာ ထဲတွင်လည်း ထည့်သွင်းဖော်ပြပေးသွားမည် ဖြစ်ကြောင်း ပြန်လည် ဖြေကြားခဲ့ပါသည်။ 	
4.	<p><u>Suggestions</u></p> <p>ဒေါ်အိဆုပိုင် (ခရိုင်မှူး၊ စက်မှုကြီးကြပ်ရေးနှင့် စစ်ဆေးရေးဦးစီးဌာန)</p> <ul style="list-style-type: none"> • CSR လုပ်ဆောင်ထားမှုများနှင့် ပတ်သတ်၍ ဆောင်ရွက်ထားမှုများအကြောင်း သိရှိလိုကြောင်း၊ • ဓာတုစွန့်ပစ်ပစ္စည်းနှင့်ပတ်သတ်၍ စွန့်ပစ်ရာတွင် ဂရုစိုက် ဆောင်ရွက်ပေးစေ လိုကြောင်း၊ • ဓာတုစွန့်ပစ်ပစ္စည်းများကို အခြားသော စွန့်ပစ်အမှိုက်များနှင့် ရောထွေးစွန့်ပစ်ခြင်း မပြုလုပ်သင့်ကြောင်း၊ မိမိအနေဖြင့် စက်ရုံမှ အမှိုက်ကန်များကို အမျိုးအစားအလိုက် သီးခြားထားရှိသည်ကို တွေ့ရှိသော်လည်း နောင်စွန့်ပစ်ရာတွင် ပိုမိုအလေးထား စွန့်ပစ်ပေးစေလိုကြောင်း • မိမိတို့ဌာနဘက်မှ စက်ရုံများကို နှစ်စဉ် စစ်ဆေးရေးဝင်မည်ဖြစ်ပြီး ဌာန၏ ညွှန်ကြားချက်များအတိုင်း လိုက်နာဆောင်ရွက်ထားစေလိုကြောင်း အကြံပြု ပြောကြားခဲ့ပါသည်။ <p><u>Explanation and Response</u></p> <p>ဦးအေးလင်းထွန်း (လက်ထောက်မန်နေဂျာ၊ Melody Global Co., Ltd.)</p>	

No	Description	Photos
	<ul style="list-style-type: none"> • ဓာတုစွန့်ပစ်ပစ္စည်းနှင့်ပတ်သတ်၍ ၎င်းတို့၏ Material Safety Data Sheet (MSDS) ပါ အချက်များအတိုင်း သေချာဆောင်ရွက်လျက် ရှိပါကြောင်း၊ အခြားသော အကြံပြုချက်များအတိုင်းလည်း လိုက်နာဆောင်ရွက်မည် ဖြစ်ပါကြောင်း ပြန်လည် ဖြေကြားခဲ့ပါသည်။ <p>ဒေါ်ဝင့်ဇာနည်မောင်မောင် (Environmental Consultant-Third Party)</p> <ul style="list-style-type: none"> • CSR လုပ်ဆောင်ထားမှုများနှင့် ပတ်သတ်၍ ပြင်ပအဖွဲ့အစည်းအား လှူဒါန်းမှုများ၊ ရုံးဝန်ထမ်းများအား လှူဒါန်းမှုများ ဆောင်ရွက်ထားမှုများအတွက် ဓာတ်ပုံမှတ်တမ်းများ၊ certificate များကို အစီရင်ခံစာ၏ နောက်ဆက်တွဲတွင် အသေးစိတ်ဖော်ပြထားပါကြောင်း၊ • ဓာတုစွန့်ပစ်ပစ္စည်းနှင့်ပတ်သတ်၍ လိုက်နာဆောင်ရွက်ရန် လိုအပ်သည့် အကြံပြုချက်များကို စက်ရုံဘက်သို့ သေချာအကြံပြုပေးသွားမည်ဖြစ်ကြောင်း ပြန်လည်ဖြေကြားခဲ့ပါသည်။ 	
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No	Description	Photos
	<p>ဦးအေးလင်းထွန်း (လက်ထောက်မန်နေဂျာ၊ Melody Global Co., Ltd.)</p> <ul style="list-style-type: none"> မီးသတ်ပစ္စည်းများနှင့် fire alarm များကို ဝန်ထမ်းများအနေဖြင့် အပတ်စဉ်၊ လစဉ် စစ်ဆေးထားရှိပါကြောင်း ပြန်လည် ဖြေကြားခဲ့ပါသည်။ <p>ဒေါ်ဝင့်ဇာနည်မောင်မောင် (Environmental Consultant-Third Party)</p> <ul style="list-style-type: none"> ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှ အကြံပေးချက်များအတိုင်း အစီရင်ခံစာထဲတွင် ထည့်သွင်းရေးဆွဲပြီး စက်ရုံဘက်မှ အကောင်အထည်ဖော် ဆောင်ရွက်နိုင်ရန် အကြံပြု လမ်းညွှန်ပေးသွားမည် ဖြစ်ကြောင်း ပြန်လည် ပြောကြားခဲ့ပါသည်။ 	
6.	<p><u>Suggestions</u></p> <p>ဦးမင်းဇော်ဦး (ဒု ဦးစီးမှူး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန)</p> <ul style="list-style-type: none"> မိုးလေဝသဆိုင်ရာ အခန်းတွင် မိုးရေချိန်အချက်အလက်များကို နှစ် (၃၀) စာ ထည့်သွင်းဖော်ပြပေးရန် လိုအပ်ပါကြောင်း အကြံပြုပြောကြားခဲ့ပါသည်။ <p><u>Explanation and Response</u></p> <p>ဒေါ်ဝင့်ဇာနည်မောင်မောင် (Environmental Consultant)</p> <ul style="list-style-type: none"> မိုးလေဝသဆိုင်ရာ အခန်းတွင် မိုးရေချိန်အချက်အလက်များကို နှစ် (၃၀) စာ ကို အစီရင်ခံစာထဲတွင် ထည့်သွင်းဖော်ပြပေးသွားမည် ဖြစ်ကြောင်း ပြန်လည် ဖြေကြားခဲ့ပါသည်။ 	

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7.	<p><u>Suggestions</u> ဦးတင့်နိုင် (ကျန်းမာရေးမှူး၊ ပဲခူးမြို့နယ် ပြည်သူ့ကျန်းမာရေးဦးစီးဌာန)</p> <ul style="list-style-type: none"> • အစီရင်ခံစာရေးသားရန်အတွက် အသေးစိတ် စစ်ဆေးဖော်ပြထားမည် ဖြစ်သည့် အတွက် အထူးအထွေအကြံပေးရန် မရှိပါကြောင်း၊ ဝန်ထမ်းများ၏ ကျန်းမာရေး မထိခိုက်စေရန်နှင့် ပတ်ဝန်းကျင်မထိခိုက်စေရန် လိုက်နာရမည့် အချက်များကိုသာ စီမံကိန်းအဆိုပြုသူများဘက်မှ အလေးထား ပေးစေလိုကြောင်း အကြံပြု ပြောကြား ခဲ့ပါသည်။ <p><u>Explanation and Response</u> ဦးအေးလင်းထွန်း (လက်ထောက်မန်နေဂျာ၊ Melody Global Co., Ltd.)</p> <ul style="list-style-type: none"> • ယခုကဲ့သို့ အကြံပြုချက်များပေးသည့်အတွက် အထူးပင်ကျေးဇူးတင်ရှိပါကြောင်း၊ အကြံပြုချက်အတိုင်း လိုက်နာဆောင်ရွက်သွားမည်ဖြစ်ကြောင်း ပြန်လည်ဖြေကြား ခဲ့ပါသည်။ <p>ဒေါ်ဝင့်ဇာနည်မောင်မောင် (Environmental Consultant)</p> <ul style="list-style-type: none"> • ထိုအကြံပြုချက်များအတိုင်း စက်ရုံဘက်မှ လိုက်နာဆောင်ရွက်သွားနိုင်စေရန် အစီရင်ခံစာထဲတွင်လည်း ထည့်သွင်းဖော်ပြပေးသွားမည် ဖြစ်ကြောင်း ပြန်လည် ဖြေကြားခဲ့ပါသည်။ 	

CHAPTER 9 ENVIRONMENTAL MANAGEMENT PLAN

9.1. INTRODUCTION

In order to manage the environmental impacts identified in the impact assessment, the project proponent is responsible to implement an Initial Environmental Examination (IEE). This management plan will form the basis for the development of an integrated management system for environmental and community issues. The environmental Management Plan (EMP) ensures that the project implementation is carried out in accordance with the design by taking appropriate mitigation actions to reduce adverse environmental impacts during its life cycle. In addition, this EMP used to ensure compliance with statutory requirement and corporate safety and environmental policies. The Environmental Management Plan for proposed project is written in accordance with 63 (h) of the Environmental Impact Assessment Procedure (2015).

9.2. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

The objective of the environmental management is to ensure potential environmental issues managed by proper mitigation measures in compliance with the relevant laws and regulations stipulated by national authorities. Environmental management based on the basic principles of management known as the PDCA cycle (see Figure 9-1). Environmental management consists of four related tasks as described below:

➤ **Plan (P) - What need to be done**

Mitigation measures for the potential environmental impacts of the project, such as air emission, noise, solid waste, wastewater and health and safety at work are described in this chapter. The Project Proponent will follow the plan for the mitigation measures according to the scheduled time.

➤ **Do (D) - Implement the plan**

The Project Proponent as described in this chapter will implement the mitigation measures for the potential environmental impacts appropriately.

➤ **Check (C) - Monitor and evaluate the results of implementation**

The effectiveness of the mitigation measures will be monitored, evaluated and documented.

➤ **Act (A) - Taking corrective actions to improve the results, if found inadequate**

If nonconformities noted with reference to the environmental monitoring benchmarks, corrective actions need to plan to mitigate the existing environmental impacts.

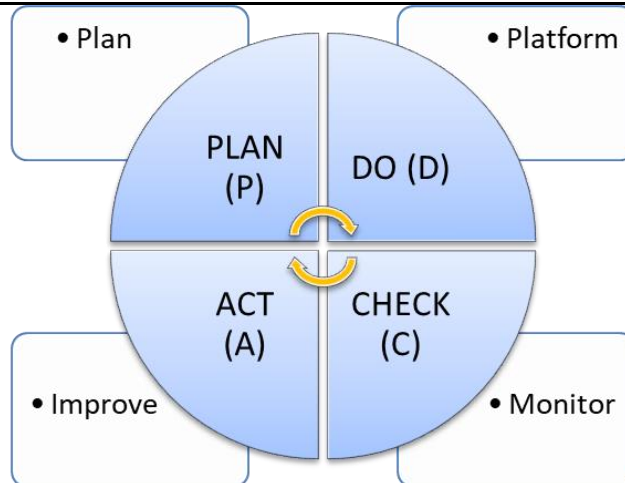


Figure 9-1 PCDA Cycle

Environmental Management Plan (EMP) for the project outlines strategies and protocols to minimize environmental impact and ensure compliance with regulations. It includes thorough assessments of potential environmental effects, such as air and water quality impacts. The plan details preventive measures like spill containment systems and vapor recovery units, aiming to prevent pollution. Monitoring protocols track environmental indicators, with emergency response plans in place for incidents. Training staff on environmental procedures and engaging with local communities are integral parts of the EMP. Regular updates ensure alignment with evolving regulations and best practices, promoting sustainable operations and community trust.

9.3. RESPONSIBILITIES OF THE ENVIRONMENTAL MANAGEMENT PLAN

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

Melody Global Company Limited: The proponent will be charged with the responsibility for ensuring that the proposed development has been accomplished in an environmentally sound manner. This can be achieved by inclusion of environmental specifications in the tender specifications, selection of environmentally conscious contractors, and supervision to ensure that the objectives of this EMP are met. The implementation of Environmental Management Plan (EMP) process will prepare and follow up by appointed persons for health, safety, and environmental management under the instruction of management team of Melody Global Company Limited for EMP implementation facilities.

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

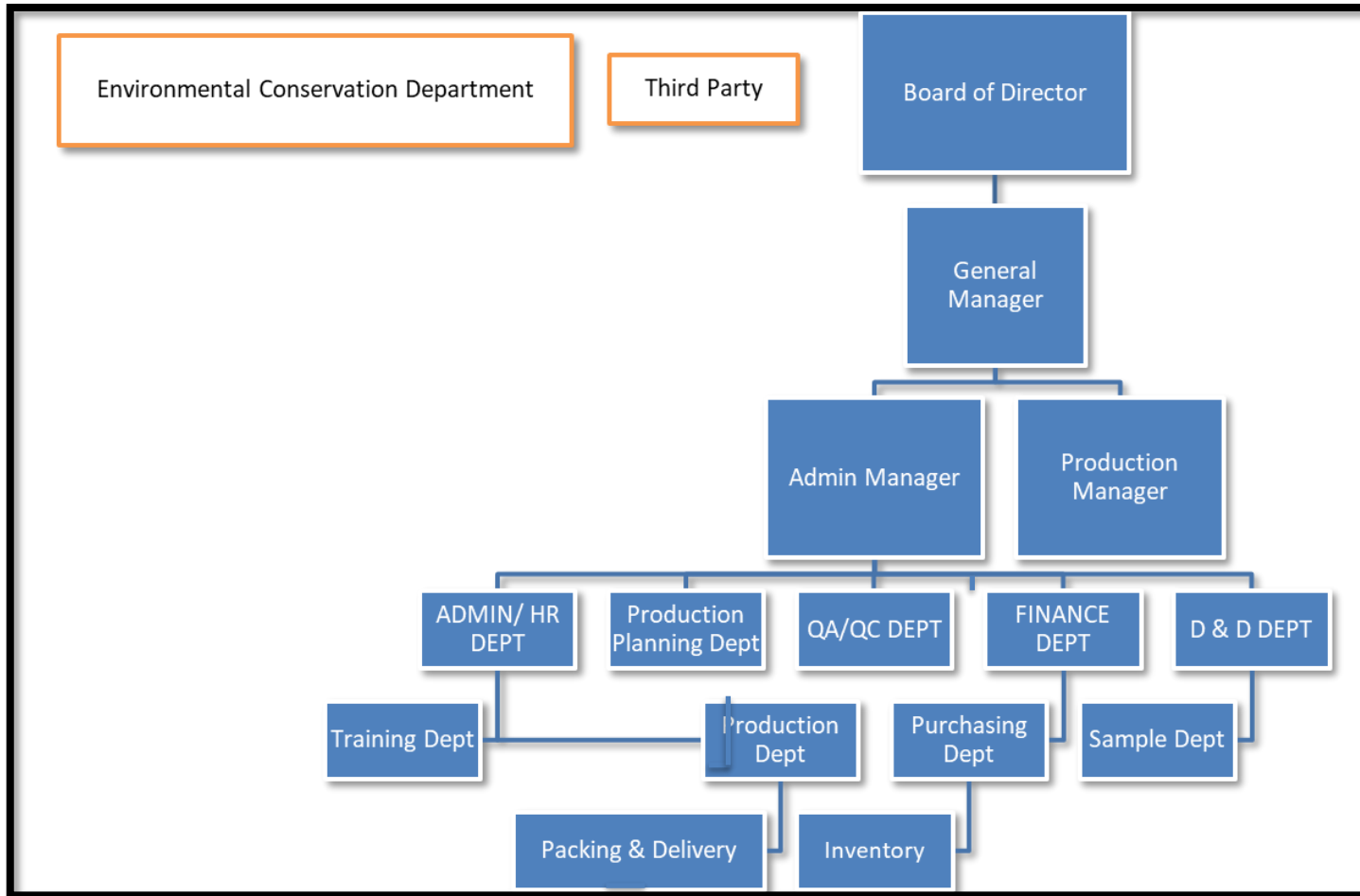


Figure 9-2 Organization Structure of Environmental Management Plan

9.4. ENVIRONMENTAL MANAGEMENT ACTION

9.4.1. Environmental Management Plan for operation phase

The environmental management action for this project has been prepared to address potential issues based upon discussion with hotel management, workers, local community view, stakeholder consultation and the site visit. The project proponent is additional to and complements the occupational safety management system. The following environmental impact issues which require environmental management plans based upon the potential impact of activities by Melody Global Company Limited are as follows:

9.4.1.1. Air Pollution/Dust Management Plan

Objectives:	<ul style="list-style-type: none"> ➤ To minimize the adverse impact to air quality caused by stack gas emission from generator and also dust management generated from vehicular movement. ➤ To control air pollution from the boiler emission ➤ To comply with relevant government rules 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ National Environmental Quality (Emission) Guidelines (2015) ➤ Automobile Safety and Automobile Management Act (2020) ➤ Boiler Law (2015) 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation 	
Management Action	<ul style="list-style-type: none"> ➤ The factory use chimney with 80 feet stacks height to ensure the proper dispersion of pollutants of boiler for reducing the impact of stack air emission on environment. ➤ The factory ensures that chimney is in proper functional condition at all time. ➤ The factory has planted trees in its premises which reduce the carbon emission by the factory and minimize the air pollution ➤ Periodic maintenance of vehicles, machineries, boiler and generator is conducted ➤ There is no open burning of waste materials at the site ➤ Workers are provided masks during working in any dusty area 	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	Outdoor Air Quality Point: 17°15'1.02"N, 96°27'35.28"E (In front of the Office Building)
	Parameters	PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂ , O ₃
Estimated cost	1,600,000 Kyats per year	
Responsibility	Management of the factory;	

	<ul style="list-style-type: none"> • Head of maintenance -Total implementation of above of air pollution management plan • Production manager -Air quality in the production area is good enough • Manager -To hire organization/independent third-party testing air quality • EHS officer-Monitor the hygiene of ambient air quality in surrounding of the factory
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9.4.1.2. Noise Management Plan

Objectives:	<ul style="list-style-type: none"> ➢ To maintain low noise exposures, such that human health and well-being are protected. The specific objectives of noise management are to develop criteria for the maximum safe noise exposure levels, and to promote noise assessment and control as part of environmental health programmes. ➢ To comply with noise standard of National Environmental Quality (Emission) Guideline 	
Relevant government law and rule	➢ National Environmental Quality (Emission) Guidelines (2015)	
Time Frame	➢ Throughout the project life	
Management Plan	<ul style="list-style-type: none"> ➢ Building noise insulated generator room and ensure satisfactory maintenance of relevant equipment ➢ Impose speed limit to track and vehicles at the transportation route. ➢ Provide sufficient personal protective equipment (PPE) at the work place ➢ All the related personnel will be provided proper training about the relevant issues and ensure PPE wear during working in noisy area. 	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	17°15'3.68"N, 96°27'33.29"E (sewing department) 17°15'5.97"N, 96°27'36.09"E (Eva department)
	Parameters	Sound Decibel
Estimated cost	800,000 Kyats per year	
Responsibility	HSE Manager or Environmental Management Team of Melody Global Company Limited	

9.4.1.3. Solid Waste Management Plan

Objectives:	<ul style="list-style-type: none"> ➢ To minimize waste generation by developing strategies for the management and disposal of all waste in a manner that is sustainable and sensitive to the environment ➢ To comply government waste management policy
Relevant government law and rule	➢ Yangon City Development Committee Law (2018), National Waste Management Strategy and Action Plan (Draft 2018)
Time Frame	➢ Entire life spans of the factory operation

Management Plan	<ul style="list-style-type: none"> ➢ The factory does not dispose any kind of solid waste on the factory premises or not dump in the surface water like local pond, canal or river, etc. ➢ The solid wastes are stored properly and separately in a certain location in proper manner such as cloth scrap waste need to collect at one place and poly/carton waste should collect at another place. Metal/Hazardous material waste such as fudge electric bulbs, empty chemical container is stored another in separate place of storage area. ➢ Recyclable wastes like cloth scrap, carton box, plastic sheet, etc. are hand over to local buyers for reuse and waste-tracking record shall be kept every day. ➢ Bottom and fly ash from boiler will be collected separately in garbage and, are watered not to spread the ash, and then, used to fill the low-lying areas around the factory. ➢ The daily domestic waste of workers hands over to MJT Co., Ltd. (waste collection service) to collect bimonthly. ➢ Daily wastes are stored clearly labeled containers and in such a manner that all related personnel are provided proper training about the relevant issues.
Monitoring & Reporting	<ul style="list-style-type: none"> ➢ Recyclable wastes are sold to local buyers and non-recyclable wastes, are disposed of at MJT Co., Ltd. (waste collection service) ➢ The inventory record of waste disposal will be maintained as proof for proper management as designed
Monitoring Point	<p>17°15'7.18"N, 96°27'34.34"E (Recycle Waste Garbage Storage Area)</p> <p>17°15'3.97"N, 96°27'31.66"E (Non-recycle Waste Garbage Storage Area)</p> <p>17°15'7.08"N, 96°27'36.47"E (Fly Ash Filter)</p> <p>17°15'8.01"N, 96°27'36.27"E (Bottom Ash Dumping)</p>
Estimated cost	1,600,000 Kyats per year
Responsibility	<p>Manager (HR)</p> <ul style="list-style-type: none"> ➢ Responsible for overall site cleanliness and waste management ➢ Regular waste collection to minimize excessive waste storage

9.4.1.4. Liquid Waste Management Plan (Domestic Wastewater)

Objectives:	<ul style="list-style-type: none"> ➢ To implementation plan for the management of liquid waste from collection, through treatment and resource recovery, to residual disposal ➢ To comply government waste management policy
Relevant government law and rule	<ul style="list-style-type: none"> ➢ Yangon City Development Committee Law (2018), National Environmental Quality (Emission) Guidelines (2015), Underground Water Act (1930)
Time Frame	<ul style="list-style-type: none"> ➢ Entire life spans of the factory operation

Management Plan	<ul style="list-style-type: none"> ➤ Ensure that drainage lines and sewage system of factory and the nearest public drainage are watertight and sufficient capacity ➤ Regular check and maintain sewerage facility. ➤ Clean the factory 's drainage to avoid odor emission and to avoid the block of water flow ➤ Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations. 	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	17°15'2.25"N and 96°27'31.82"E (at the factory drainage)
	Parameters	pH, Turbidity, Total Solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese
Estimated cost	600,000 Kyats per year	
Responsibility	Manager -To hire organization/independent third-party testing wastewater quality EHS officer-Monitor the condition of factory's drainage and sewerage system	

9.4.1.5. Hazardous Waste Management Plan

Objective	<ul style="list-style-type: none"> ➤ To avoid environmental pollution and adverse health effects due to its improper handling & disposal ➤ To comply government waste management policy 	
Relevant Government Law and Rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), Explosive Ordnance Disposal Law (2018) 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of proposed project 	
Management Action	<ul style="list-style-type: none"> ➤ Proper inspection and maintenance in storage of hazardous waste. ➤ Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. ➤ The empty chemical containers will hand over to suppliers for recycle or appropriate disposal ➤ The hazardous wastes are transported by specially licensed carriers and disposed in a licensed waste collection service 	
Monitoring and Reporting	Any hazardous materials purchased should include a Material Safety Data Sheet (MSDS), otherwise known as a Safety Data Sheet (SDS) or Product Safety Data Sheet (PSDS). By mandate of the World Health Organization's Inter-Organization Programme for the Sound Management of Chemicals (IOMC), all manufacturers of hazardous materials are required to provide a MSDS so that end users can treat the materials properly.	
Monitoring Point	17°15'7.80"N and 96°27'35.50"E (At chemical/ diesel and oil storage area)	
Estimated Cost	1,000,000 Kyats per year	

Responsible Person	HSE Manager or Environmental Management Team of Melody Global Company Limited
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9.4.1.6. Fire Management Plan

Objectives:	<ul style="list-style-type: none"> ➤ To ensure that fire control practices are implemented on site to minimise the risk of fire from site operations and bush fires ➤ To comply government law
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Myanmar Fire Brigade Law 2015
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of proposed project operation
Management Plan	<ul style="list-style-type: none"> ➤ Must be provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. ➤ Must be indicated the emergency exit and assembly point in public area. ➤ Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire fighting. ➤ The emergency fire alarms are installed at the factory for alerting the workers in case of fire. ➤ The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
Monitoring & Reporting	To check monthly Visual inspection, Firefighting equipment (fire extinguisher, firefighting hose, portable fire pumps, fire hose reels, fire monitor and firefighting nozzles)
Monitoring Point	17°15'3.19"N and 96°27'34.71"E (At the whole factory)
Estimated cost	1,200,000 Kyats per year
Responsibility	HSE Manager, Operation Manager or Environmental Management Team of Melody Global Company Limited

9.4.1.7. Occupational Safety and Health Management Plan

Objective	<ul style="list-style-type: none"> ➤ To provide a broad framework for improving standards of workplace health and safety to reduce work-related injury and illness. ➤ To comply government law
Relevant Government Law and Rule	<ul style="list-style-type: none"> • Public Health Law (1972), Prevention and Control of Communicable Diseases Law 1995 (Amendment 2011), Occupational Safety and Health Law (2019)
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of proposed project
Management Action	<ul style="list-style-type: none"> ➤ First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. ➤ According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers.

	<ul style="list-style-type: none"> ➤ Personal Protective Equipment (PPE) like earmuffs, safety gloves, helmets and goggles are provided for each department. ➤ To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures. ➤ Manage the drainage systems of the factory to prevent health risk of the workers. ➤ The maximum allowable noise level for workers is 70dB(A) for 8hours exposure a day. Thus, adequate protective noise impact measures in the form of ear muffs/ear plugs to the workers working in high noise areas.
Monitoring and Reporting	<ul style="list-style-type: none"> ➤ Weekly check fire extinguishers and water hydrant in position ➤ Daily inspect that all fire exist are open ➤ Servicing fire extinguisher and records accidents
Monitoring Point	17°15'3.19"N and 96°27'34.71"E (At the whole factory)
Estimated Cost	1,200,000 Kyats per year
Responsible Person	HSE Manager, Operation Manager or Environmental Management Team of Melody Global Company Limited

9.4.1.8. Energy Management Plan

Objectives:	<ul style="list-style-type: none"> ➤ To improve energy efficiency, reduce cost, optimize capital investment, reduce environmental and greenhouse gas emissions, and conserve natural resources ➤ To comply government law
Relevant government law and rule	➤ National Energy Management Committee (Myanmar Energy Master Plan 2015)
Time Frame	Once in a year throughout the factory life
Management Plan	<ul style="list-style-type: none"> ➤ Installation of timers and thermostats to control heating and cooling ➤ Energy saving light installed in different area of the factory for saving energy ➤ Used of energy saving devices must be installed ➤ Ensure that good housekeeping measures such as turning off equipment and lights when not in use
Monitoring & Reporting	Conduct annual energy efficiency of audit to find out the scope for energy saving
Monitoring Point	17°15'3.19"N and 96°27'34.71"E (At the whole factory)
Estimated cost	Approximately 1,000,000 Kyats per year
Responsibility	<p>Manager</p> <ul style="list-style-type: none"> ➤ To arrange energy audit technical personnel ➤ To monitor and record electricity consumption, other related energy issues and take necessary actions if any problem arises

9.4.1.9. Water Consumption Management Plan

Objectives:	The water consumption management is aimed at minimizing ground water use
Performance Indicator:	<ul style="list-style-type: none"> • Prohibitions on accessing and using underground water without a license • Water consumption saving of general water use from groundwater
Relevant government law and rule	<ul style="list-style-type: none"> • The Underground Water Act (1930)
Management Plan	<ul style="list-style-type: none"> • Install water meter for internal control of water consumption • All staff trains and makes aware conservation practices and proper methods of water use must be place in toilets and other areas of water consumption • The contamination of water is avoided by suitable management of oil and fuel used in machineries and vehicles • All staff are aware unnecessary water consumption due to such problems including leaks, broken or missing valves.
Monitoring & Reporting	<ul style="list-style-type: none"> • Daily visual inspections
Time Frame	<ul style="list-style-type: none"> • Once in a year throughout the factory life
Estimated cost	<ul style="list-style-type: none"> • 500000 Kyats per year
Responsibility	<p>Manager</p> <ul style="list-style-type: none"> • Arrange audit on water usage controls environmental officer

9.4.1.10. Emergency Response and Management Plan

Objectives:	<ul style="list-style-type: none"> ➤ To reduce the harmful effects of all hazards, including disasters. The World Health Organization defines an emergency as the state in which normal procedures are interrupted, and immediate measures (management) need to be taken to prevent it from becoming a disaster, which is even harder to recover from. ➤ To comply government law
Relevant government law and rule	<ul style="list-style-type: none"> ➤ The Employment and Skill Development Law (August 2013), ILO guide to Myanmar Labour Law (2017)
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation
Management Plan	<ul style="list-style-type: none"> ➤ Provision and inspection of firefighting equipment and fire hydrant system in all the sections ➤ A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers ➤ Periodic inspection of safety relief valve provided with pressure vessels and equipment, preventive maintenance; aware the workers about electric shock by necessary training. ➤ Regular fire drill operation is conducted ➤ Workers are informed about what to do in earthquake like stay in a safe place such as under table of desk, not to try move outside during earthquake, workers who will be outside during earthquake shall remain

	<p>stay out of the building, trees, lump post, etc. Other relevant safety instruction of emergency situation it informed to workers by training</p> <ul style="list-style-type: none"> ➤ Workers are aware of dangers from physical hazards such as obstacles covered by floodwater (storm debris, drainage opening, ground erosion) and from displaced reptiles (Snake) or other animals. ➤ A medical team has been prepared for primary treatment (First Aid) ➤ Prepare an emergency contact directory consisting contact numbers of nearest fire service, local police station, hospitals, etc. and display it in a place that everybody can see it easy. ➤ Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management ➤ Ensure proper training of the employees about the disaster management, fire safety as well as occupational health and safety
Monitoring & Reporting	<p>Weekly check fire extinguishers and water hydrant in position</p> <p>Daily inspect that all fire exist are open</p> <p>Servicing fire extinguisher and records accidents,</p>
Estimated cost	Approximately 1,500,000 Kyats per year
Responsibility	<p>Manager and EHS officer</p> <ul style="list-style-type: none"> ➤ Arrange firefighting training after every 3 months ➤ Responsible for fire control and response ➤ Monitoring daily danger warning and bans

9.4.1.11. Chemical Storage, Handling and Disposal Management Plan

Objectives:	<ul style="list-style-type: none"> ➤ To ensure the safe handling, storage, and disposal of chemicals to protect human health and the environment ➤ To comply with relevant regulations and minimize risks associated with chemical accidents, exposure, and environmental contamination
Relevant government law and rule	<ul style="list-style-type: none"> ➤ The Prevention of Hazard from Chemical and Related Substances Law, 2013
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation
Management Plan	<ul style="list-style-type: none"> ➤ Store chemicals in designated, secure areas according to manufacturer recommendations. ➤ Store chemicals in compatible groupings to prevent reactions or accidents. ➤ Maintain proper labeling for all chemicals, including hazard symbols and handling instructions. ➤ Ensure all storage areas are properly ventilated ➤ Provide employees with appropriate personal protective equipment (PPE) such as gloves, goggles, and respiratory protection.

	<ul style="list-style-type: none"> ➤ Train personnel on proper handling techniques, chemical risks, and emergency response protocols. ➤ Ensure waste chemicals are segregated based on their properties (e.g., hazardous, non-hazardous, flammable, corrosive). ➤ Label all waste containers with proper waste identification ➤ Comply with local environmental regulations when disposing of chemicals. ➤ Use licensed disposal contractors for hazardous waste. ➤ Regularly audit chemical handling and disposal processes to ensure compliance with safety and environmental standards.
Monitoring & Reporting	Maintain accurate records of all waste chemical shipments, including type, quantity, and disposal method. Regularly audit chemical handling and disposal processes to ensure compliance with safety and environmental standards.
Estimated cost	Approximately 1,500,000 Kyats per year
Responsibility	HSE Manager or Environmental Management Team of Melody Global Company Limited

9.4.2. Environmental Management Plan for decommissioning phase

The following environmental issues which require environmental management plans for decommissioning phase are as follows:

9.4.2.1. Air Pollution/ Dust Management Plan

Objectives:	<ul style="list-style-type: none"> ➤ To minimize the adverse impact to air quality caused by stack gas emission from generator and also dust management generated from vehicular movement. ➤ To control air pollution from the boiler emission ➤ To comply with relevant government rules 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ National Environmental Quality (Emission) Guidelines (2015) ➤ Automobile Safety and Automobile Management Act (2020) ➤ Boiler Law (2015) 	
Time Frame	During the decommissioning phase	
Management Action	<ul style="list-style-type: none"> ➤ Spray water twice a day ➤ Cover mesh trap around the decommission area ➤ Install shading net about 2 meters above temporary fence of decommission area ➤ Carry broken material with cover by canvas. 	
Monitoring & Reporting	Frequency	One time
	Monitoring Point	One point in the demolishing area
	Parameters	PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂ , O ₃

Estimated cost	800,000 Kyats per year
Responsibility	Project Proponent

9.4.2.2. Noise Management Plan

Objectives:	<ul style="list-style-type: none"> ➤ To maintain low noise exposures, such that human health and well-being are protected. The specific objectives of noise management are to develop criteria for the maximum safe noise exposure levels, and to promote noise assessment and control as part of environmental health programmes. ➤ To comply with noise standard of National Environmental Quality (Emission) Guideline 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ National Environmental Quality (Emission) Guidelines (2015) 	
Time Frame	<ul style="list-style-type: none"> ➤ Throughout the project life 	
Management Plan	<ul style="list-style-type: none"> ➤ Carry out the activities during day time. ➤ Maintain the machines and vehicles to reduce noise pollution. ➤ Provide the ear plugs to the workers. 	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	17°15'3.68"N, 96°27'33.29"E (sewing department) 17°15'5.97"N, 96°27'36.09"E (Eva department)
	Parameters	Sound Decibel
Estimated cost	800,000 Kyats per year	
Responsibility	Project Proponent	

9.4.2.3. Liquid Waste Management Plan (Domestic Wastewater)

Objectives:	<ul style="list-style-type: none"> ➤ To implementation plan for the management of liquid waste from collection, through treatment and resource recovery, to residual disposal ➤ To comply government waste management policy 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), National Environmental Quality (Emission) Guidelines (2015), Underground Water Act (1930) 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation 	
Management Plan	<ul style="list-style-type: none"> ➤ Ensure careful management of construction debris and materials to prevent contamination of runoff. ➤ Install sediment barriers and silt fences around the decommissioned area to control water flow and reduce sedimentation into nearby water bodies. ➤ Monitor water used for dust control or cleaning to ensure it does not discharge contaminants into the environment. ➤ Properly store and dispose of chemicals and hazardous materials to prevent spills or leaks that could impact water quality. 	

	<ul style="list-style-type: none"> ➤ Carefully demolish septic tanks in a controlled manner to prevent any release of contaminants into the environment. ➤ Empty and clean septic tanks prior to demolition to prevent contamination during the process. 	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	17°15'2.25"N and 96°27'31.82"E (at the factory drainage)
	Parameters	pH, Turbidity, Total Solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese
Estimated cost	600,000 Kyats per year	
Responsibility	Project Proponent	

9.4.2.4. Solid Waste Management Plan

Objectives:	<ul style="list-style-type: none"> ➤ To minimize waste generation by developing strategies for the management and disposal of all waste in a manner that is sustainable and sensitive to the environment ➤ To comply government waste management policy 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), National Waste Management Strategy and Action Plan (Draft 2018) 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation 	
Management Plan	<ul style="list-style-type: none"> ➤ Carefully sort all recyclable materials and transport them to designated recycling areas for proper processing. ➤ Implement measures to reduce waste, promote recycling, and ensure safe disposal practices 	
Monitoring & Reporting	<ul style="list-style-type: none"> ➤ Recyclable wastes are sold to local buyers and non-recyclable wastes, are disposed of at waste collection service ➤ The inventory record of waste disposal will be maintained as proof for proper management as designed 	
Monitoring Point	<p>17°15'7.18"N, 96°27'34.34"E (Recycle Waste Garbage Storage Area)</p> <p>17°15'3.97"N, 96°27'31.66"E (Non-recycle Waste Garbage Storage Area)</p>	
Estimated cost	50,000 Kyats per month	
Responsibility	Project Proponent	

9.4.2.5. Hazardous Waste Management Plan

Objective	<ul style="list-style-type: none"> ➤ To avoid environmental pollution and adverse health effects due to its improper handling & disposal ➤ To comply government waste management policy 	
Relevant Government Law and Rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), Explosive Ordnance Disposal Law (2018) 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of proposed project 	

Management Action	<ul style="list-style-type: none"> ➤ Recycle diesel containers in accordance with regulations to prevent contamination. ➤ Handle hazardous waste with utmost care and engage a waste collection service to ensure its safe disposal. ➤ Properly treat and dispose of materials such as chemicals, oils, and other hazardous substances to prevent environmental harm.
Monitoring and Reporting	Any hazardous materials purchased should include a Material Safety Data Sheet (MSDS), otherwise known as a Safety Data Sheet (SDS) or Product Safety Data Sheet (PSDS). By mandate of the World Health Organization's Inter-Organization Programme for the Sound Management of Chemicals (IOMC), all manufacturers of hazardous materials are required to provide a MSDS so that end users can treat the materials properly.
Monitoring Point	17°15'7.80"N and 96°27'35.50"E (At chemical/ diesel and oil storage area)
Estimated Cost	1,000,000 Kyats per year
Responsible Person	Project Proponent

9.4.2.6. Occupational Safety and Health Management Plan

Objective	<ul style="list-style-type: none"> ➤ To provide a broad framework for improving standards of workplace health and safety to reduce work-related injury and illness. ➤ To comply government law
Relevant Government Law and Rule	<ul style="list-style-type: none"> • Public Health Law (1972), Prevention and Control of Communicable Diseases Law 1995 (Amendment 2011), Occupational Safety and Health Law (2019)
Time Frame	➤ Entire life spans of proposed project
Management Action	<ul style="list-style-type: none"> ➤ Provide protective fencing or demarcation with tape at the boundaries of dangerous / hazardous zone and the appropriate warning signs, marking and safety signs and installation of the lost time injury notice board. ➤ Clean up excessive waste debris and liquid spills regularly. ➤ Use the third-party expert assisted by trained personnel to identify and remove hazardous materials.
Monitoring and Reporting	<ul style="list-style-type: none"> ➤ Weekly check fire extinguishers and water hydrant in position ➤ Daily inspect that all fire exist are open ➤ Servicing fire extinguisher and records accidents
Monitoring Point	17°15'3.19"N and 96°27'34.71"E (At the whole factory)
Estimated Cost	1,200,000 Kyats per year
Responsible Person	Project Proponent

Issues	Parameter	Frequency	Area to be monitored	Estimated Cost (Kyats)	Responsible Organization
Occupational health and safety	lost of property and injuries	Monthly	17°15'3.19"N and 96°27'34.71"E (At the whole factory)	1,200,000/year	Melody Global Company Limited's Environmental Management Team
Decommissioning Phase					
Air quality	SO ₂ , NO ₂ , CO, CO ₂ , PM _{2.5} , PM ₁₀	One time during this phase	A suitable point in the factory	800,000/year	Project proponent
Water	pH, Turbidity, Total Solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese	One time during this phase	A suitable point in the factory	300,000/year	Project proponent
Noise	Noise level in decibel (dBA)	One time during this phase	A suitable point in the factory	400,000/ year	Project proponent
Occupation Health and Safety	Incident/accident records	during this phase	At the factory	1000,000/year	Project Proponent
Rehabilitation	Recovering and Revegetation	-	All decommissioning area	1000,000/year	Project proponent

Note: If the amount described above is not enough at the time of implementation, it will be used up to a sufficient amount.

9.6. BUDGET PLAN FOR ENVIRONMENTAL MANAGEMENT AND MONITORING

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

The following table shows the expenditures for the implementation of Environmental Management Plan for operation phase annually. Estimation cost for EMP implementation is presented in Table 9-2.

Table 9-2 Cost estimation for EMP implementation

No	Item	Frequency/Times	Cost (MMK)
Management and Monitoring Plan			
1	Air Quality	biannually	1,600,000 per year
2	Water Quality (Ground Water)	biannually	600,000 per year
3	Noise level	biannually	800,000 per year
4	Odor Intensity	biannually	1,000,000 per year
5	Light Intensity	biannually	400,000 per year
6	Solid Waste (Recycle and Non-recycle)	weekly	600,000 per year
7	Solid Waste (Fly and Bottom Ash)	biannually	1,000,000 per year
8	Liquid Waste (Domestic Wastewater)	biannually	600,000 per year
9	Hazardous Waste	monthly	1,000,000 per year
10	Occupational Health and Safety	weekly	1,200,000 per year
11	Fire Hazardous	monthly	1,200,000 per year
12	Energy Management	annually	1,000,000 per year
13	Water Consumption Management	Daily	500,000 per year
14	Emergency Response and Management	weekly	1,500,000 per year
15	Chemical Storage, Handling and Disposal Management	weekly	1,500,000 per year

Note: If the amount described above is not enough at the time of implementation, it will be used up to a sufficient amount.

9.7. CAPACITY BUILDING AND TRAINING PLAN

9.7.1. Safety and Emergency Response Training

The management team should ensure the development and implementation of a comprehensive fire and emergency response plan, including evacuation procedures. All training materials and procedures should cover health and safety protocols for workers and employees. Safety and emergency response training in the proposed project is essential to protect workers from potential hazards. This training includes understanding common risks such as machinery accidents, dust explosions, and chemical spills. Operators must receive proper training in machine operations, with a focus on safety and noise management, and should be educated on the correct use of personal protective equipment (PPE) to ensure their safety during operations. Workers should also learn how to safely operate and maintain equipment, while being trained on emergency procedures, such as using fire extinguishers, handling chemical spills, and performing basic first aid. Additionally, training should include maintenance and emergency procedures. Regular drills and training sessions are crucial to ensure everyone is prepared for emergencies. Environmental safety training should emphasize

the recognition and maintenance practices necessary to prevent any negative impact on the environment. Employees must be trained in the safe use of equipment, material storage, and the proper safety protocols for devices and machines in the workplace. Appropriate protection should always be used in working areas, ensuring sanitation and hygiene are maintained. Fire safety training should include firefighting techniques, evacuation procedures, and proper use of firefighting materials and devices. First aid training, including CPR and AED, should be provided by certified external providers, along with specific training on chemical hazards in the workplace. Finally, keeping good records of incidents and safety checks helps improve safety practices over time.

9.7.2. Operational Procedures and Efficiency

Effective operations and efficiency are key to smooth production. First, check and clean the equipment before starting and plan the milling schedule to avoid delays. During processing, sort and clean the rice, remove the husks, polish the grains, and sort them by quality. Quality control is important—test samples to ensure the rice meets standards. Keep machinery well-maintained with routine checks and repairs to prevent breakdowns. Train staff on best practices and use technology to improve processes. Always follow safety protocols and manage waste properly to maintain a safe and efficient operation.

9.7.3. Regulatory Compliance and Environmental Responsibility

Following regulatory rules and maintaining environmental responsibility are essential in the project. Compliance involves adhering to industry regulations, such as quality standards and safety requirements, and keeping accurate records for inspections. Environmental responsibility includes proper waste management by recycling or safely disposing of by-products. Energy-saving practices and minimizing water use help reduce environmental impact. Regular reviews and updates of practices ensure alignment with current regulations and environmental standards, promoting both legal compliance and sustainability.

9.7.4. Maintenance and Equipment Handling

Effective maintenance and proper equipment handling are crucial for smooth operations and longevity of machinery. Regular maintenance involves scheduled checks and servicing of equipment to prevent breakdowns. This includes lubricating moving parts, cleaning machines, and replacing worn-out components. Operators should follow proper procedures for handling machinery, such as using equipment as intended and conducting pre-operation inspections. It's important to train staff on correct equipment use and maintenance practices. Keeping detailed records of maintenance activities helps track performance and anticipate future needs.

6.	First Aid	first aid / CPR/ AED training from providers (Outsource) training on hazard of chemicals
7.	Chemical Safety	Training for the safe handling, storage, and disposal of chemicals to protect human health and the environment

9.8. GRIEVANCE REDRESS MECHANISM (GRM)

People who live near the project affected area or stakeholders can complain about the problems and impacts that they suffer; they can complain through Grievance Committee, which includes the responsible persons of Melody Global Company Limited. Small issues will be solved at the Grievance Committee stage and other unsolved problems will be submitted to higher responsible authorities and finally the responsible person decided by the court in legal terms. The following diagram (Figure 9-3) show steps of Grievance Redress Mechanism of Proposed Factory Project.

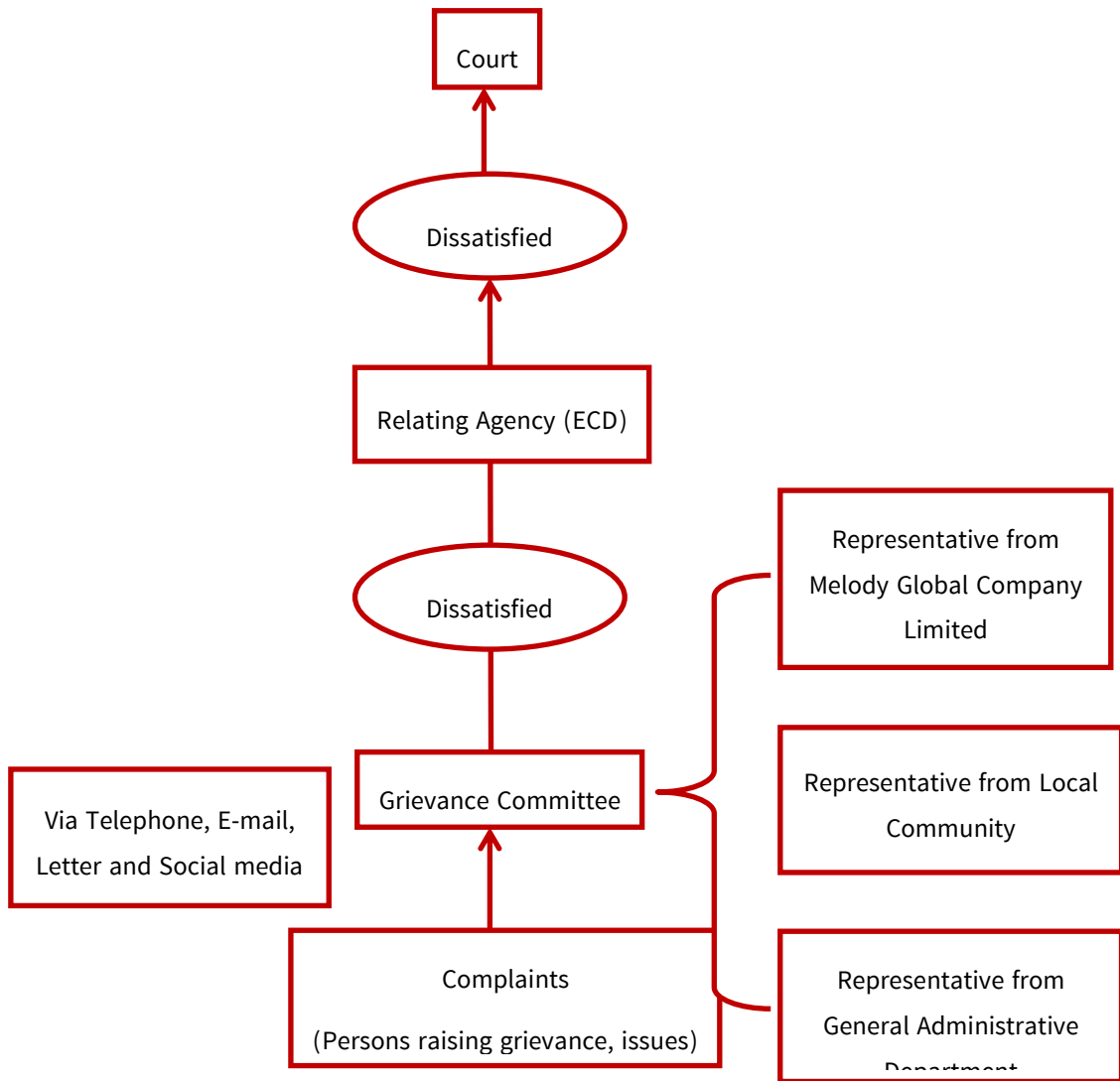


Figure 9-3 Grievance Redress Mechanism flow diagram

Table 9-4 Workplace Coordination Committee (WCC) of Melody Global Company Limited

No.	Name	NRC No.	Title	Position	Phone Number
1.	Mr. Rao JiaJun	EC 2456148	employer representative	Factory Manager	09250072568
2.	U Aye Lin Htun	7/PaKhaNa (N) 250601	employer representative	Assistant Manager	0943173478
3.	U Aung Aung	7/KaWaNa(N)105507	employer representative	Admin Dept	09960937089
4.	Daw Su Mon Kyaw	7/PaKhaNa(N)300003	employee representative	Assembly Dept	09423945990
5.	U Aung Ye Lwin	7/PaKhaNa(N)377539	employee representative	Sport Dept	09459210458
6.	Daw Thwel Thwel Min	7/PaKhaNa(N)381888	employee representative	Sample Dept	09952714452

9.9. CORPORATE SOCIAL RESPONSIBILITY (CSR) PLAN

The CSR activities have the objective to uplift quality of life and gain favorable relations from all communities in the operation area. The CSR program for Melody Global Company Limited consists of three main sectors; Health, Education and Community Development Sector. CSR activities are conducted in compliance with MIC's guideline. Melody Global Company Limited will contribute 2% of our Net Profit to social welfare activities that will help employees and local community.

Table 9-5 CSR plan at Melody Global Co., Ltd.

Sector	Priority item	Contribution (%)	Detail Targets
Health	Healthcare for employees and their family	0.5 %	One of our main concerns is the well-being of our employees. We will contribute 0.5 % of our net profit for the healthcare which includes medical checkup for the employees and providing health education to our workers.
Education	Raising awareness education level and human right	0.5%	We will contribute 0.5 % of our net profit to the public school surrounding the village to be a part of creating the better community. We will also work together with the school to understand more about the needs and we will also ensure that our contributions will be used in the most effective and efficient way for the society.
Community development	Donation to local community	1 %	Donate to local charities with a worthy cause

Sector	Priority item	Contribution (%)	Detail Targets
			<p>Actively participate in community events</p> <p>Encourage staff to participate, and to form a community engagement team to actively support community events</p> <p>Embedding understanding and consciousness about human rights issues among the employees</p> <p>Development of sexual harassment and power harassment (workplace bullying & harassment) prevention efforts</p>

CHAPTER 10 CONCLUSION AND RECOMMENDATION

10.1. CONCLUSION

Initial Environmental Examination (IEE) has been prepared for Melody Global Company Limited factory is located at Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar. The main objective of the study is focused specially on the required environmental management measures or creating environmentally friendly workplace. An IEE has been carried out for the factory according to the requirement of the proponent as it has been made for shoes product manufacturing factory.

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

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

The effective implementation of the mitigation measures proposed will ensure towards good environmental management within the proposed project area. Furthermore, the environmental monitoring plan prepared as part of the EMP will provide adequate opportunities to address any residual impacts during the operation phase.

In conclusion, it has been figured out that, the proposed shoes factory is going to generate local employment opportunities and enhance capabilities and working skills of employees. Consequently, their socio-economic standard is expected to be improved and undertaking corporate social responsibilities (CSR) as recommended. The study further concluded that positive impacts will be of immense benefit to the local community and national development as well.

10.2. RECOMMENDATION

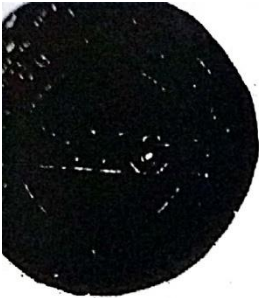
This is recommended that;

- All appropriate environmental management measures detailed in this report, along with any other environmental management commitments, should be implemented throughout the entire life of the factory.
- Solid waste, liquid waste, and hazardous waste should be disposed of in accordance with the Bago Municipal rules and regulations.

-
- The factory should avoid the practice of dumping fly ash or bottom ash directly onto open land, as this increases the risk of contamination through wind and water runoff.
 - Workers should be provided with proper training, and it should be ensured that workers use PPE in the factory operation areas.
 - Daily, monthly, and annual action plans should be formulated based on this IEE and implemented at the operational level.
 - Full records of environmental management activities should be kept and presented for annual independent third-party environmental audits.
 - The factory should abide by the environmental policies, laws, rules, and regulations of the Republic of the Union of Myanmar.

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

APPENDIX A
MIC Endorsement and Company certificate



THE REPUBLIC OF THE UNION OF MYANMAR
The Myanmar Investment Commission
PERMIT



Permit No. 616/2013

Date 9 September 2013

The Myanmar Investment Commission issues this Permit under section 13(b) of the Republic of the Union of Myanmar Foreign Investment Law-

- (a) Name of Investor/Promoter MR. CHU, SAU-LIN
- (b) Citizenship CHINESE
- (c) Address NO. 25, LANE 148, FUXING SOUTH ROAD,
TAIPEI, TAIWAN
- (d) Name and Address of principal Organization SUNNY SHOES INC.
1F, NO. 25, LANE 148, SEC. 2, FUXING S. RD, TAIPEI, 106, TAIWAN R.O.C.
- (e) Place of incorporation BRITISH VIRGIN ISLANDS
- (f) Type of business in which investment is to be made MANUFACTURING
OF FOOTWEARS AND OUTDOOR SPORTS PRODUCTS UNDER CMP BASIS
- (g) Place(s) at which investment is permitted PLOT NO. 26/ 27/28,
INDUSTRIAL AREA, BAGO REGION, MYANMAR
- (h) Amount of foreign capital US\$ 8.6 MILLION
- (i) Period for bringing in foreign capital WITHIN TWO YEARS FROM
THE DATE OF ISSUANCE OF MIC PERMIT
- (j) Total amount of capital (Kyat) EQUIVALENT IN KYAT OF US\$ 8.6
MILLION
- (k) Construction period 2 YEARS
- (l) Permitted duration of investment 50 YEARS
- (m) Form of investment WHOLLY FOREIGN OWNED INVESTMENT
- (n) Name of the economic organization to be formed in Myanmar MELODY GLOBAL CO., LTD.

Wintsham

Chairman

The Myanmar Investment Commission

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
 မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်
 ခွင့်ပြုမိန့်



ခွင့်ပြုမိန့်အမှတ် ၆၁၆/ ၂၀၁၃

၂၀၁၃ ခုနှစ် စက်တင်ဘာလ ၉ ရက်

ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု ဥပဒေ ပုဒ်မ (၁၃)ပုဒ်မခွဲ(ခ)
 အရ ဤခွင့်ပြုမိန့်ကို မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်က ထုတ်ပေးလိုက်သည် -

- (က) ကမကထပြုသူ၏အမည် MR. CHU, SAU-LIN
- (ခ) နိုင်ငံသား CHINESE
- (ဂ) နေရပ်လိပ်စာ NO. 25, LANE 148, FUXING SOUTH ROAD, TAIPEI, TAIWAN
- (ဃ) ပင်မအဖွဲ့အစည်းအမည်နှင့်လိပ်စာ SUNNY SHOES INC
 IF, NO.25, LANE 148, SEC.2, FUXING S. RD, TAIPEI, 106, TAIWAN R.O.C
- (င) ဖွဲ့စည်းရာအရပ် BRITISH VIRGIN ISLANDS
- (စ) ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစား CMP စနစ်ဖြင့် FOOTWEARS AND
 OUTDOOR SPORTS PRODUCTS ထုတ်လုပ်ခြင်း လုပ်ငန်း
- (ဆ) ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ) မြေကွက်အမှတ်(၂၆၊ ၂၇၊ ၂၈)
 ပဲခူးတိုင်းဒေသကြီးစက်မှုဇုန်
- (ဇ) နိုင်ငံခြားမတည်ငွေရင်း ပမာဏ အမေရိကန်ဒေါ်လာ ၈.၆ သန်း
- (ဈ) နိုင်ငံခြားမတည်ငွေရင်းယူဆောင်လာရမည့်ကာလ ခွင့်ပြုမိန့်ရရှိသည့် နေ့မှ
 (၂)နှစ် အတွင်း
- (ည) စုစုပေါင်း မတည်ငွေရင်းပမာဏ(ကျပ်) အမေရိကန်ဒေါ်လာ ၈.၆ သန်းနှင့် ညီမျှ
 သောမြန်မာကျပ်ငွေ
- (ဋ) တည်ဆောက်မှုကာလ ၂ နှစ်
- (ဌ) ရင်းနှီးမြှုပ်နှံခွင့်ပြုသည့် သက်တမ်း ၅၀ နှစ်
- (ဍ) ရင်းနှီးမြှုပ်နှံမှုပုံစံ ရာခိုင်နှုန်းပြည့်နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု
- (ဎ) မြန်မာနိုင်ငံတွင် ဖွဲ့စည်းမည့် စီးပွားရေး အဖွဲ့အစည်းအမည်
 MELODY GLOBAL CO., LTD.

ဦးကျော်
 မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်

APPENDIX B
Certificate of Incorporation



ကုမ္ပဏီမှတ်ပုံတင်လက်မှတ်
Certificate of Incorporation

MELODY GLOBAL CO., LTD
Company Registration No. 107958614

မြန်မာနိုင်ငံကုမ္ပဏီများအက်ဥပဒေ ၁၉၁၄ ခုနှစ် အရ
MELODY GLOBAL CO., LTD
အား ၂၀၁၃ ခုနှစ် ဇူလိုင်လ ၁၈ ရက်နေ့တွင်
အစုရှယ်ယာအားဖြင့် တာဝန်ကန့်သတ်ထား သည့် အများနှင့်မသက်ဆိုင်သောကုမ္ပဏီ
အဖြစ် ဖွဲ့စည်းမှတ်ပုံတင်ခွင့် ပြုလိုက်သည်။

This is to certify that
MELODY GLOBAL CO., LTD
was incorporated under the Myanmar Companies Act 1914 on 18 July
2013 as a Private Company Limited by Shares.

ကုမ္ပဏီမှတ်ပုံတင်အရာရှိ
Registrar of Companies

ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန
Directorate of Investment and Company Administration



Former Registration No. 309FC/2013-2014

APPENDIX C

Land Lease Agreement

LAND LEASE AGREEMENT

BETWEEN

THE BAGO REGIONAL GOVERNMENT

THE REPUBLIC OF THE UNION OF MYANMAR

AND

MELODY GLOBAL CO., LTD.

LAND LEASE AGREEMENT

This LEASE AGREEMENT made entered into and delivered at Bago on this 19th Day of February, Two Thousand & Thirteen

BETWEEN

The Bago Regional Government., the Republic of the Union of Myanmar, represented for this purpose, by it's the Secretary of Bago Region Government (hereinafter referred to as "the LESSOR" which expression shall except where the context requires another and different meaning therefrom, include its successors and permitted assign) represented for this purpose by U Maung Maung Thin of the ONE PART

AND

MELODY GLOBAL CO., LTD. (incorporated and registered) under the Myanmar Companies Act an 100% (One Hundred Percent) owned foreign company in the Republic of the Union of Myanmar hereinafter referred to as "the LESSEE" which expression shall except where the context requires another and different meaning therefrom, include its successors and legal representatives and permitted assign) represented for this purpose by Mr. Chu, Chien-Kang a citizen of the People's TAIWAN of the OTHER PART

WITNESSETH AS FOLLOWS:

WHEREAS the LESSEE is desirous of entering into this lease Agreement for utilizing the lease land of 13.92 acres equivalent to 56360.688 square meters at Plot No. 262728 Industrial area Bago described in the map as per appendix A attached hereto (which shall form an integral part of this Lease Agreement) to construct MELODY GLOBAL Factory thereon to produce Boots, Shoes, Sandals, EVA material, Insole, Surf Traction Pad & Leashes, Outdoor Sports Accessories, Knee & Elbow Pad... WHEREAS the LESSOR is desirous of leasing the land plot for 50(Fifty) years extendable to 10-Ten years two terms as afore-mentioned to the LESSEE to enhance industrial development, whereby promotion the foreign investment in Myanmar, WHEREAS the LESSOR represents and warrants that it has the legal and beneficial right on the said land, and WHEREAS both the LESSOR and the LESSEE hereto are legally authorized to enter into this Lease Agreement.

NOW, THEREFORE, THE PARTIES HERE TO HERBY AGREE AS FOLLOWS:

ARTICLE I : SCOPE OF AGREEMENT

1-01 In consideration of the rent hereinafter reserved and the covenants made by the LESSEE hereinafter contained, the LESSOR both hereby unto the LESSEE all that piece of land at Plot No. 262728 of Industrial area, Bago Myanmar measuring 13.92 acres equivalent to 56360.688 square meters as per map attached as appendix A hereto (which shall form an integral part of this lease Agreement) together with all the rights basements appurtenances thereto, except all mines, deposits, gemstones, coal petroleum or other natural resources as well as buried treasure and gems occurring in, under or within the said land for a term of 50(Fifty) years extendable to 10-Ten years two terms from the date of signing this Lease Agreement.

1-02 On expiry of 50(Fifty) years term of the Lease Agreement extendable to 10-Ten years two terms, this lease may be renewed for further terms with the consent of the LESSOR and subject to the approval of the Myanmar Investment Commission (hereinafter referred to as MIC)

ARTICLE II : ANNUAL RENTAL AND PAYMENT TERMS

2-01 The annual rent for the land shall be calculated at the following rates as per decision made by the cabinet of Bago Regional Government.

US\$ 2.5	per square meter for 1st 10 years
US\$ 3.0	per square meter for 2nd 10 years
US\$ 3.5	per square meter for 3rd 10 years

After 30years the price shall be revised according the mutual agreement between two parties.

2-02 Payment of annual rent shall be made in advance in the first month of year of every financial year.

2-03 The payment of first annual rental shall be made within 30 days after getting MIC permit.

2-04 The penalty will be applied if LESSEE delay to pay 15 days of the month.

ARTICLE III : PLACE OF BUSINESS AND FACTORY

3-01 The place of business and factory of the LESSEE shall be in Bago, Myanmar. The LESSEE may also have registered offices at such other places as may be determined by the Board of Directors.

ARTICLE IV : EFFECTIVE DATE OF THE LEASE

4-01 The effective date of this Lease Agreement shall be the date on which this Lease Agreement is signed by both the LESSOR and the LESSEE.

ARTICLE V : LESSEE'S OBLIGATIONS

5-01 The LESSEE hereby covenants with the LESSOR for the following.

5-01 (1) to pay the said rent on the days and in the manner hereinbefore appointed for payment thereof and to pay for all the charges to be collected by respective authorities with respect to any services provided ;

5-01 (2) not to sub-lease, assign or transfer the whole or any part of the lease hold interest hereby created, concerning the leased premises or any part thereof, without the consent of the LESSOR and the approval of the Myanmar Investment Commission ;

5-01 (3) to utilize the leased land for the purpose of constructing MELODY GLOBAL factory and thereafter to install plant and equipment for processing preserving, marketing locally or overseas, Boots, Shoes, Sandals, EVA material, Insole, Surf Traction Pad & Leashes, Outdoor Sports Accessories, Knee & Elbow Pad... products and for no other purposes ;

5-01 (4) to accomplish construction of the factory of MELODY GLOBAL factory building within two years from the date of signing this Agreement in accordance with the design concept (Appendix) ;

5-01 (5) to ensure that all activities and operation on the premises or any part thereof including the MELODY GLOBAL factory under lease and other related facilities, are in conformity with the laws, regulations and directives of the Republic of Union of Myanmar ;

5-01 (6) The LESSEE shall be responsible for protection as well as preservation of the environment in and around the work-site, and shall be able to control pollution of air, water and land and not to cause any environmental degradation. The LESSEE shall also take necessary measures in order to make environmental protection and other treatment procedure to keep the work-site environmentally friendly ;

5-01 (7) to surrender the lease within 3 (three) months of prior notice served to the LESSOR and take away or dispose of all movable properties thereon having the LESSOR's right to claim for the rent up to the date of complete evacuation and damages caused to the land in the event of termination under clause 14-03.

ARTICLE VI : LESSOR'S OBLIGATIONS

6-01 The LESSEE paying the rent hereinbefore mentioned and performing an observing the covenants hereinbefore contained, the LESSOR hereby covenants with the LESSEE for the following :

6-01 (1) The LESSOR shall pay all land revenues imposed on the leased land ;

6-01 (2) The LESSOR is to assist in getting sufficient electricity power supply, with the required International Directly Dial telephones, fax lines and internet lines ; and

6-01 (3) The LESSOR is to assist in getting the requisite licenses and permits from relevant authorities in Myanmar.

ARTICLE VII : LESSOR'S RIGHT

7-01 The LESSOR shall have the right to empower its to the Secretary of the Cabinet or all persons acting under his order to be at liberty at all reasonable times during the term of the lease to enter upon the said leased land or any buildings thereon for any purpose related to the lease.

7-02 If the LESSEE in any substantial respect fails to perform or observe the terms and conditions of this Lease and fails to notice in writing from the LESSOR of such default, the LESSOR shall be at liberty to re-enter upon and take possession of the whole complex of the lease land and the lease shall, thereupon, cease and determine, provided that such right of re-entry shall not prejudice any right of action of the LESSOR for recovery of money from the LESSEE by way of rent or compensation for damages.

7-03 The LESSEES may peacefully and quietly hold the leased premises during the term of the lease Agreement without any interruption or disturbance of whatsoever nature by the LESSOR or any person lawfully claiming to represent the LESSOR.

ARTICLE VIII : GOVERNING LAW AND JURISDICTION

8-01 This lease agreement shall be read, construed, interpreted and governed, in all respects, by the laws of the Republic of Union of the Myanmar and the parties hereby submit to the jurisdiction of the relevant court of Myanmar and all courts competent to hear appeals therefrom.

ARTICLE IX : WARRANTY AND REPRESENTATION

9-01 Each Party represents and warrants to the other that it is a legal person duly authorized under the relevant laws and has the right power sound financial standing and authority to enter into this Lease Agreement.

ARTICLE X : CONDITION PRECEDENT

10-01 This lease agreement is conditional upon receipt of all necessary and requisite approvals for its performance and implementation of this lease Agreement from all relevant government authorities in the Republic of the Union of Myanmar.

ARTICLE XI : RENEGOTIATION OF AGREEMENT

11-01 In the event that any situation or condition arise due to circumstances not envisaged in the Agreement and that it warrants amendments to this Lease Agreement, the parties hereto shall make necessary negotiations with a view to making such amendments.

11-02 Such amendments are subject to the approval of the Myanmar Investment Commission.

ARTICLE XII : LAW OF PERFORMANCE

12-01 Both parties shall carry out their obligations arising out of this Lease Agreement according to the laws, rules, regulations, directives and procedures of the Republic of the Union of Myanmar.

ARTICLE XIII : ARBITRATION

13-01 In the event of any dispute arising between the parties to this Lease Agreement, which cannot be settled amicably, such dispute shall be settled in the Republic of the Union of Myanmar by way of Arbitration, through two arbitrators, each one of whom shall be appointed by the LESSOR and the LESSEE respectively. Should the arbitrators fail to reach an agreement, the dispute shall be referred to an umpire nominated by the arbitrators. The decision of the arbitrators or the umpire shall be final and binding upon both parties. The arbitration

proceeding shall, in all respects conform to the Myanmar Arbitration Act, 1944 (Myanmar Act IV, 1944) or any subsequent statutory modifications thereof.

- 13-02 Arbitration fees shall be borne by the losing party.
- 13-03 The venue of arbitration shall be in Yangon, Myanmar.

ARTICLE XIV : TERMINATION

- 14-01 This Lease Agreement may be terminated through the service of 90 (ninety) days notice by either party hereto, upon occurrence of any of the following event, subject to the approval of the Myanmar Investment Commission.
 - 14-01 (a) substantial and continuous losses sustained by the business operation.
 - 14-01 (b) breach of any conditions of this Lease Agreement by either party, without notification within 60 (sixty) days from written notification of the other party, and
 - 14-01 (c) force majeure event persisting for more than six months from the occurrence thereof.
- 14-02 This Lease Agreement may be terminated, before the expiry of the term of the Lease, by mutual consent in writing, after a service of 90 (ninety) days notice of the intention of such termination of the one party to the other.
- 14-03 This Lease Agreement may also be terminated by the LESSEE, in the event that a natural disaster or any destruction or loss caused by force majeure occurs. Notice of intention to terminate shall be given in writing to the LESSOR, 90 days in advance. The LESSEE reserves its right under this Lease Agreement to reconstruct the damaged property at its own cost and continue its operations.
- 14-04 Termination shall be effective, only after the approval of Myanmar Investment Commission.

ARTICLE XV : FORCE MAJEURE

- 15-01 If either party is temporarily rendered unable wholly or partly by force majeure to perform its obligations or accept the performance of the other party under this Lease Agreement, the affected party shall give notice to the other party within 14 (fourteen) days after the occurrence of the cause relied upon, giving full particulars in writing of such force majeure. The duties of such party as affected by some force majeure shall, with the approval of the other party, be suspended the continuance of the disability so caused, but for no longer period than reasonable and such cause shall, as far as possible, be removed with all reasonable dispatch. Neither party shall be responsible for any delay caused by force majeure.
- 15-02 The term, "force majeure" as applied herein shall mean Act of God, restraints of the Government, lock-outs, strikes, industrial disturbances, wars, blockades, insurrections, riots, epidemics, civil disturbances, explosions, fires, floods, earth quakes, storms, lightning and other causes similar to the conditions as enumerated therein which are beyond the control of either party and which, by the exercise of due care and diligence, either party is unable to overcome.

ARTICLE XVI : ASSIGNMENTS

- 16-01 The LESSEES has the right to assign, or transfer its interest in the MELODY GLOBAL factory to any company or individual, local or foreign, with the consent of and on terms agreed by the LESSOR, subject to the existing laws of the Republic of Union of Myanmar and the approval of Myanmar Investment Commission.

ARTICLE XVII : MINERAL RESOURCES AND TREASURES

- 17-01 Mineral resources, treasures, gems and other natural resources, discovered unexpectedly from, in or under the lease land during the term of this Lease Agreement, shall be the property of the LESSOR and the LESSOR shall be at liberty to excavate the aforesaid land at anytime, in accordance with laws, rules and regulations of the Republic of Union of Myanmar.

ARTICLE XVIII : INTEGRAL PART OF THE CONTRACT REGARDING ONE HUNDRED PERCENT FOREIGN INVESTMENT

- 18-01 This Lease Agreement together with Appendices hereto shall, for all purposes, form an integral part of the Contract Regarding 100% Foreign Investment signed on the same date between the parties for establishing the 100% Foreign Investment Industries Factory.

ARTICLE XIX : NOTICE

- 19-01 Any notice or other communication required to be given or sent hereunder shall be in English Language and be left or sent by prepaid registered post (airmail, if overseas) or telex or facsimile transmission or electronic mail to the party concerned at its address given underneath, or such other address as the party concerned shall have notified in concurrence with this clause to the other party. The addresses of parties are as follows:

LESSOR Name - U Maung Maung Than
The Secretary of Bago Regional Government
Bago, Myanmar
Tel : +95-52-2000789

LESSEE Name - Mr. Chu, Chien-Kang
The Director of MELODY GLOBAL CO., LTD.
Tel : +886-2-2784-6371

ARTICLE XX : LANGUAGE

- 20-1 This Agreement shall be written in English.

ARTICLE XXI : RETRANSFER OF LEASED PROPERTY


- 21-01 During the period of 50(50) years extendable to 10(ten) years two time terms of the leasehold of the leased land, MELODY GLOBAL Factory shall undertake normal maintenance and due care of the leased land MELODY GLOBAL Factory shall with the prior written consent of Bago Regional Government to construct additional buildings or extension of buildings at the factory premises after initial foreign investment.


- 21-02 At the expiry or the Lease period, the Lessee shall transfer the leased land to the Lessor within 3 (three) months in good condition, ground damages having been refilled or repaired.
- 21-03 The Lessee shall have the right to take re-possession of all movable properties which shall be removed at its own costs and/or disposed of within 3 (three) months, not affecting the Bago Regional Government's right to claim for the rent up to the date of complete evacuation and damages caused to the leased land by the Lessee.
- 21-04 If MELODY GLOBAL CO., LTD. wishes to manage and operate the Factory Building after termination of this Contract, a new contract of management under new terms and conditions may be negotiated and concluded before the expiry of this Contract.

IN WITNESS WHEREOF THE PARTIES hereto have set their respective hands and affixed their seals hereunder on the Day, the Month and the Year first above written.

For and on behalf
of the LESSOR

For and on behalf
of the LESSEE


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APPENDIX D

Factory Resources

Annual Raw Material to be imported on CMP Basic

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11-20
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
1	EVA	kg	184,000	202,400	222,640	244,904	269,394	226,270	226,270	271,524	271,524	271,524	274,239
2	PE	kg	161,000	177,100	194,810	214,291	235,720	199,650	199,650	239,580	239,580	239,580	241,976
3	EPDM Rubber	kg	6,900	7,590	8,349	9,184	10,102	8,652	8,652	10,382	10,382	10,382	10,486
4	Stearic Acid	kg	3,450	3,795	4,175	4,592	5,051	4,659	4,659	5,590	5,590	5,590	5,646
5	69 Titanium Dioxide	kg	1,150	1,265	1,392	1,531	1,684	1,997	1,997	2,396	2,396	2,396	2,420
6	Rubber Color Masterbatch	kg	115	127	139	153	168	200	200	240	240	240	242
7	EVA Color Masterbatch	kg	11,500	12,650	13,915	15,307	16,837	19,965	19,965	23,958	23,958	23,958	24,198
8	Disperse Dyes	kg	115	127	139	153	168	200	200	240	240	240	242
9	BR/SBR	kg	34,500	37,950	41,745	45,920	50,511	46,585	46,585	55,902	55,902	55,902	56,461
10	Natural Rubber	kg	6,900	7,590	8,349	9,184	10,102	9,317	9,317	11,180	11,180	11,180	11,292
11	High Temperature Foaming Agent	kg	27,600	30,360	33,396	36,736	40,409	33,275	33,275	39,930	39,930	39,930	40,329
12	Cryogenic Foaming Agent	kg	690	759	835	918	1,010	932	932	1,118	1,118	1,118	1,129
13	Auxiliary	kg	690	759	835	918	1,010	932	932	1,118	1,118	1,118	1,129
14	Rubber Zinc Oxide	kg	690	759	835	918	1,010	932	932	1,118	1,118	1,118	1,129
15	EVA Zinc Oxide	kg	9,200	10,120	11,132	12,245	13,470	11,979	11,979	14,375	14,375	14,375	14,519
16	Bridging Agent	kg	6,900	7,590	8,349	9,184	10,102	8,652	8,652	10,382	10,382	10,382	10,486

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11-20
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
17	White Carbon	kg	23,000	25,300	27,830	30,613	33,674	33,275	33,275	39,930	39,930	39,930	40,329
18	Calcium Carbonate	kg	92,000	101,200	111,320	122,452	134,697	119,790	119,790	143,748	143,748	143,748	145,185
19	Barium Sulfate	kg	92,000	101,200	111,320	122,452	134,697	119,790	119,790	143,748	143,748	143,748	145,185
20	Dispersing Agent	kg	115	127	139	153	168	200	200	240	240	240	242
21	Rubber Powder	kg	17,250	18,975	20,873	22,960	25,256	21,296	21,296	25,555	25,555	25,555	25,811
22	Cutting Knife	pc	46	51	56	61	67	60	60	72	72	72	73
23	Rubber Accelerator	kg	690	759	835	918	1,010	932	932	1,118	1,118	1,118	1,129
24	Heavy Oil	Ton	138	152	167	184	202	186	186	224	224	224	226
25	Paraffin	kg	1,150	1,265	1,392	1,531	1,684	2,662	2,662	3,194	3,194	3,194	3,226
26	Mold Release Agent	tub	115	127	139	153	168	266	266	319	319	319	323
27	Hydraulic Fluid	tub	230	253	278	306	337	266	266	319	319	319	323
28	Polyester	meter	71,300	78,430	86,273	94,900	104,390	83,853	83,853	100,624	100,624	100,624	101,630
29	Wool	yard	71,300	78,430	86,273	94,900	104,390	83,853	83,853	100,624	100,624	100,624	101,630
30	Noddle Material	meter	1,150	1,265	1,392	1,531	1,684	2,662	2,662	3,194	3,194	3,194	3,226
31	Muslin Fabric	yard	58,650	64,515	70,967	78,063	85,869	69,212	69,212	83,054	83,054	83,054	83,885
32	8N Canvas	yard	71,300	78,430	86,273	94,900	104,390	83,853	83,853	100,624	100,624	100,624	101,630
33	Spandex	yard	6,325	6,958	7,653	8,419	9,260	8,652	8,652	10,382	10,382	10,382	10,486
34	Non Woven Fabric	yard	3,680	4,048	4,453	4,898	5,388	4,392	4,392	5,271	5,271	5,271	5,323
35	Counter	yard	3,680	4,048	4,453	4,898	5,388	4,392	4,392	5,271	5,271	5,271	5,323
36	Surface Treating Agent	kg	4,140	4,554	5,009	5,510	6,061	4,925	4,925	5,910	5,910	5,910	5,969

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11-20
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
37	Methyl Treating Agent	kg	3,450	3,795	4,175	4,592	5,051	4,259	4,259	5,111	5,111	5,111	5,162
38	Cleaning Naphtha	kg	2,185	2,404	2,644	2,908	3,199	2,662	2,662	3,194	3,194	3,194	3,226
39	Quick- Acting Binder	kg	3,163	3,479	3,827	4,209	4,630	3,793	3,793	4,552	4,552	4,552	4,598
40	Super Glue	kg	518	569	626	689	758	732	732	878	878	878	887
41	Foam Glue -	kg	575	633	696	765	842	799	799	958	958	958	968
42	Viscosity Increaser	kg	288	316	348	383	421	466	466	559	559	559	565
43	Mould Proof Agent	kg	299	329	362	398	438	479	479	575	575	575	581
44	Stiffening Agent	jar	575	633	696	765	842	799	799	958	958	958	968
45	Shoes CardBoard Paper	sheet	6,900	7,590	8,349	9,184	10,102	9,317	9,317	11,180	11,180	11,180	11,292
46	Snap Fastener	pc	402,500	442,750	487,025	535,728	589,300	479,160	479,160	574,992	574,992	574,992	580,742
47	Sheos Paper	pack	3,450	3,795	4,175	4,592	5,051	4,259	4,259	5,111	5,111	5,111	5,162
48	Packing Paper	pack	2,875	3,163	3,479	3,827	4,209	3,461	3,461	4,153	4,153	4,153	4,194
49	Inner box	pc	115,000	126,500	139,150	153,065	168,372	199,650	199,650	239,580	239,580	239,580	241,976
50	Carton	pc	57,500	63,250	69,575	76,533	84,186	69,212	69,212	83,054	83,054	83,054	83,885
51	Labeling	pc	920,000	1,012,000	1,113,200	1,224,520	1,346,972	1,131,350	1,131,350	1,357,620	1,357,620	1,357,620	1,371,196
52	Anti-Mildew Tablet	pc	172,500	189,750	208,725	229,598	252,557	206,305	206,305	247,566	247,566	247,566	250,042
53	Pearl Line	pc	13,800	15,180	16,698	18,368	20,205	17,303	17,303	20,764	20,764	20,764	20,971
54	Zipper	pc	230,000	253,000	278,300	306,130	336,743	272,855	272,855	327,426	327,426	327,426	330,700
55	Woven Lable	pc	920,000	1,012,000	1,113,200	1,224,520	1,346,972	1,091,420	1,091,420	1,309,704	1,309,704	1,309,704	1,322,801
56	Hangtag	pc	575,000	632,500	695,750	765,325	841,858	678,810	678,810	814,572	814,572	814,572	822,718

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11-20
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
57	Natural Latex	ton	6	6	7	8	8	13	13	16	16	16	16
58	Double Sided Adhesive	roll	57,500	63,250	69,575	76,533	84,186	79,860	79,860	95,832	95,832	95,832	96,790
59	Rubber brush	pc	11,500	12,650	13,915	15,307	16,837	15,972	15,972	19,166	19,166	19,166	19,358
60	Brush	pc	5,750	6,325	6,958	7,653	8,419	7,986	7,986	9,583	9,583	9,583	9,679
61	Pu synthetic Leather	yard	57,500	63,250	69,575	76,533	84,186	79,860	79,860	95,832	95,832	95,832	96,790
62	Cow Suede	meter	115,000	126,500	139,150	153,065	168,372	159,720	159,720	191,664	191,664	191,664	193,581
63	synthetic Leather	meter	115,000	126,500	139,150	153,065	168,372	173,030	173,030	207,636	207,636	207,636	209,712
64	Wool	meter	23,000	25,300	27,830	30,613	33,674	33,275	33,275	39,930	39,930	39,930	40,329
65	Hardware	set	575,000	632,500	695,750	765,325	841,858	798,600	798,600	958,320	958,320	958,320	967,903
66	Elastic	yard	23,000	25,300	27,830	30,613	33,674	39,930	39,930	47,916	47,916	47,916	48,395
67	Pull Help Forceps	pc	230	253	278	306	337	333	333	399	399	399	403
68	Shears	pc	1,150	1,265	1,392	1,531	1,684	1,597	1,597	1,917	1,917	1,917	1,936
69	Small Scissors	pc	3,450	3,795	4,175	4,592	5,051	5,324	5,324	6,389	6,389	6,389	6,453
70	Clamp	pc	230	253	278	306	337	333	333	399	399	399	403
71	Shoe Last	pair	11,500	12,650	13,915	15,307	16,837	14,641	14,641	17,569	17,569	17,569	17,745
72	Anti Water-Sprinkling	kg	3,450	3,795	4,175	4,592	5,051	5,324	5,324	6,389	6,389	6,389	6,453
73	Insole Cardboard	pc	23,000	25,300	27,830	30,613	33,674	33,275	33,275	39,930	39,930	39,930	40,329
74	Sewing Needle	box	3,450	3,795	4,175	4,592	5,051	4,259	4,259	5,111	5,111	5,111	5,162
75	Foam	yard	23,000	25,300	27,830	30,613	33,674	33,275	33,275	39,930	39,930	39,930	40,329
76	Mesh	yard	34,500	37,950	41,745	45,920	50,511	42,592	42,592	51,110	51,110	51,110	51,622

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11-20
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
77	PE Pater	kg	11,500	12,650	13,915	15,307	16,837	15,972	15,972	19,166	19,166	19,166	19,358
78	Plastic Buckle	pc	345,000	379,500	417,450	459,195	505,115	465,850	465,850	559,020	559,020	559,020	564,610
79	Ink	kg	1,150	1,265	1,392	1,531	1,684	1,597	1,597	1,917	1,917	1,917	1,936
80	Sieve Mesh	meter	3,450	3,795	4,175	4,592	5,051	4,659	4,659	5,590	5,590	5,590	5,646
81	Printing Film	kg	25	28	30	33	37	799	799	958	958	958	968
82	Plywood Glue	tub	58	63	70	77	84	80	80	96	96	96	97
83	Scraper	meter	23	25	28	31	34	33	33	40	40	40	40
84	Wire wheel	pc	1,150	1,265	1,392	1,531	1,684	1,997	1,997	2,396	2,396	2,396	2,420
85	Rubber wheel	pc	230	253	278	306	337	333	333	399	399	399	403
86	Glue	kg	57,500	63,250	69,575	76,533	84,186	79,860	79,860	95,832	95,832	95,832	96,790
87	Dry Water Ink	kg	3,450	3,795	4,175	4,592	5,051	4,659	4,659	5,590	5,590	5,590	5,646
88	Film Cleaner	kg	3,450	3,795	4,175	4,592	5,051	4,659	4,659	5,590	5,590	5,590	5,646
89	Photosensitive Plastic	bottle	345	380	417	459	505	466	466	559	559	559	565
90	Remover	bottle	115	127	139	153	168	160	160	192	192	192	194
91	PU Material	kg	3,450	3,795	4,175	4,592	5,051	5,324	5,324	6,389	6,389	6,389	6,453
92	PVC Material	kg	115,000	126,500	139,150	153,065	168,372	159,720	159,720	191,664	191,664	191,664	193,581
93	TPR Material	kg	115,000	126,500	139,150	153,065	168,372	159,720	159,720	191,664	191,664	191,664	193,581
94	Transparent Tape	roll	115,000	126,500	139,150	153,065	168,372	1,597,200	1,597,200	1,916,640	1,916,640	1,916,640	1,935,806
95	Yellow Tape	roll	23,000	25,300	27,830	30,613	33,674	33,275	33,275	39,930	39,930	39,930	40,329
96	West Paperboard	pc	11,500	12,650	13,915	15,307	16,837	14,641	14,641	17,569	17,569	17,569	17,745

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11-20
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
97	Non-Grain tape	roll	23,000	25,300	27,830	30,613	33,674	33,275	33,275	39,930	39,930	39,930	40,329
98	3M adhesive	roll	690	759	835	918	1,010	932	932	1,118	1,118	1,118	1,129
99	Dupont Surlyn Film (0.1mm*60.5cm)	kg	1,150	1,265	1,392	1,531	1,684	1,997	1,997	2,396	2,396	2,396	2,420
100	Vacuum packaging film	kg	575	633	696	765	842	799	799	958	958	958	968
101	Package Card	pc	460,000	506,000	556,600	612,260	673,486	559,020	559,020	670,824	670,824	670,824	677,532
102	Staple	box	3,450	3,795	4,175	4,592	5,051	4,259	4,259	5,111	5,111	5,111	5,162
103	PVC Label	pc	402,500	442,750	487,025	535,728	589,300	479,160	479,160	574,992	574,992	574,992	580,742
104	PVC Glue	kg	115,000	126,500	139,150	153,065	168,372	159,720	159,720	191,664	191,664	191,664	193,581
105	PVC Treating Agent	kg	575	633	696	765	842	799	799	958	958	958	968
106	TPU Material	kg	57,500	63,250	69,575	76,533	84,186	73,205	73,205	87,846	87,846	87,846	88,724
107	Neoprene	pc	5,750	6,325	6,958	7,653	8,419	7,986	7,986	9,583	9,583	9,583	9,679
108	Webbing	yard	69,000	75,900	83,490	91,839	101,023	86,515	86,515	103,818	103,818	103,818	104,856
109	Velcro - hook	yard	287,500	316,250	347,875	382,663	420,929	346,060	346,060	415,272	415,272	415,272	419,425
110	Velcro - hairy	yard	287,500	316,250	347,875	382,663	420,929	346,060	346,060	415,272	415,272	415,272	419,425
111	PP String	yard	115,000	126,500	139,150	153,065	168,372	146,410	146,410	175,692	175,692	175,692	177,449
112	Swivel	pc	690,000	759,000	834,900	918,390	1,010,229	865,150	865,150	1,038,180	1,038,180	1,038,180	1,048,562
113	Rivet	pc	920,000	1,012,000	1,113,200	1,224,520	1,346,972	1,131,350	1,131,350	1,357,620	1,357,620	1,357,620	1,371,196
114	Woven Label	pc	690,000	759,000	834,900	918,390	1,010,229	865,150	865,150	1,038,180	1,038,180	1,038,180	1,048,562
115	Card Board Paper	pc	402,500	442,750	487,025	535,728	589,300	505,780	505,780	606,936	606,936	606,936	613,005
116	Sticker	pc	850,000	935,000	1,020,000	1,113,000	1,214,000	1,323,000	1,323,000	1,587,600	1,587,600	1,587,600	1,607,000

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11-20
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
137	Carbon Fiber	meter	58	63	70	77	84	80	80	96	96	96	97
138	Fiber Glass	meter	11,500	12,650	13,915	15,307	16,837	15,972	15,972	19,166	19,166	19,166	19,358
139	EPS Foam	m ³	1,150	1,265	1,392	1,531	1,684	1,997	1,997	2,396	2,396	2,396	2,420
140	Unsaturated Resin	kg	3,450	3,795	4,175	4,592	5,051	6,655	6,655	7,986	7,986	7,986	8,066
141	Epoxy Resin -	kg	3,450	3,795	4,175	4,592	5,051	6,655	6,655	7,986	7,986	7,986	8,066
142	Curing Agent	kg	35	38	42	46	51	67	67	80	80	80	81
143	Product Gel Cat	kg	2,300	2,530	2,783	3,061	3,367	5,324	5,324	6,389	6,389	6,389	6,453
144	Printing Ink	kg	115	127	139	153	168	266	266	319	319	319	323
145	Wax Releasing	box	230	253	278	306	337	532	532	639	639	639	645
146	Non-Grain tape	roll	1,150	1,265	1,392	1,531	1,684	2,662	2,662	3,194	3,194	3,194	3,226
147	Vacuum Bag	meter	3,450	3,795	4,175	4,592	5,051	6,655	6,655	7,986	7,986	7,986	8,066
148	Releasing Cloth	meter	4,600	5,060	5,566	6,123	6,735	7,986	7,986	9,583	9,583	9,583	9,679
149	Fiber Mat	meter	4,025	4,428	4,870	5,357	5,893	6,655	6,655	7,986	7,986	7,986	8,066
150	Stainless Steel Screw	pc	11,500	12,650	13,915	15,307	16,837	26,620	26,620	31,944	31,944	31,944	32,263
151	Tail Box	set	920	1,012	1,113	1,225	1,347	1,331	1,331	1,597	1,597	1,597	1,613
152	Remover	kg	345	380	417	459	505	666	666	799	799	799	807
153	Carton	pc	920	1,012	1,113	1,225	1,347	1,331	1,331	1,597	1,597	1,597	1,613
154	PVC Plate	pc	4,600	5,060	5,566	6,123	6,735	7,986	7,986	9,583	9,583	9,583	9,679
155	Light Powder	kg	230	253	278	306	337	666	666	799	799	799	807
156	Acetone	kg	5,750	6,325	6,958	7,653	8,419	9,317	9,317	11,180	11,180	11,180	11,292

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
117	PE Stick	pc	3,450	3,795	4,175	4,592	5,051	4,659	4,659	5,590	5,590	5,590	5,646
118	PP Yarn	kg	3,450	3,795	4,175	4,592	5,051	5,324	5,324	6,389	6,389	6,389	6,453
119	Interlaced Yarn	kg	3,450	3,795	4,175	4,592	5,051	5,324	5,324	6,389	6,389	6,389	6,453
120	Polypropylene Rubber	kg	9,200	10,120	11,132	12,245	13,470	11,314	11,314	13,576	13,576	13,576	13,712
121	TPE Rubber	kg	9,200	10,120	11,132	12,245	13,470	11,314	11,314	13,576	13,576	13,576	13,712
122	Color Masterbatch	kg	575	633	696	765	842	799	799	958	958	958	968
123	Terelene Fabric	meter	23,000	25,300	27,830	30,613	33,674	29,282	29,282	35,138	35,138	35,138	35,490
124	PVC Fabric	meter	11,500	12,650	13,915	15,307	16,837	13,976	13,976	16,771	16,771	16,771	16,938
125	PVC Mesh Fabric	meter	5,750	6,325	6,958	7,653	8,419	7,321	7,321	8,785	8,785	8,785	8,872
126	Buckle	pc	230,000	253,000	278,300	306,130	336,743	279,510	279,510	335,412	335,412	335,412	338,766
127	PP Piping	yard	575,000	632,500	695,750	765,325	841,858	705,430	705,430	846,516	846,516	846,516	854,981
128	Hangtag	pc	57,500	63,250	69,575	76,533	84,186	73,205	73,205	87,846	87,846	87,846	88,724
129	Threads	pc	2,300	2,530	2,783	3,061	3,367	2,928	2,928	3,514	3,514	3,514	3,549
130	PE Woven Cloth	meter	92,000	101,200	111,320	122,452	134,697	133,100	133,100	159,720	159,720	159,720	161,317
131	EPE Foam	meter	80,500	88,550	97,405	107,146	117,860	98,494	98,494	118,193	118,193	118,193	119,375
132	Zipper	meter	44,850	49,335	54,269	59,695	65,665	55,902	55,902	67,082	67,082	67,082	67,753
133	Zipper Ring	meter	23,000	25,300	27,830	30,613	33,674	27,951	27,951	33,541	33,541	33,541	33,877
134	D buckle	set	23,000	25,300	27,830	30,613	33,674	27,951	27,951	33,541	33,541	33,541	33,877
135	Barcode Label	pc	23,000	25,300	27,830	30,613	33,674	27,951	27,951	33,541	33,541	33,541	33,877
136	Balistic Cloth	meter	17	19	21	23	25	21	21	26	26	26	26

Sr.	Name	A/U	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11-20
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
157	Sealing Tape	roll	9,200	10,120	11,132	12,245	13,470	13,310	13,310	15,972	15,972	15,972	16,132
158	Mask	pc	17,250	18,975	20,873	22,960	25,256	39,930	39,930	47,916	47,916	47,916	48,395
159	Protective Glasses	pc	345	380	417	459	505	666	666	799	799	799	807
160	Guide Equipment	meter	2,300	2,530	2,783	3,061	3,367	3,993	3,993	4,792	4,792	4,792	4,840
161	Gold Steel Knife	pc	230	253	278	306	337	399	399	479	479	479	484
162	Sand Paper	sheet	11,500	12,650	13,915	15,307	16,837	26,620	26,620	31,944	31,944	31,944	32,263
163	Mould Gel Coat	kg	1,150	1,265	1,392	1,531	1,684	2,662	2,662	3,194	3,194	3,194	3,226
164	Art Knife	box	345	380	417	459	505	666	666	799	799	799	807
165	PP Yarn	kg	11,500	12,650	13,915	15,307	16,837	19,965	19,965	23,958	23,958	23,958	24,198
166	Interlaced Yarn	kg	11,500	12,650	13,915	15,307	16,837	14,641	14,641	17,569	17,569	17,569	17,745
167	Heating coil	pc	115	127	139	153	168	160	160	192	192	192	194
168	Electric coupling	pc	115	127	139	153	168	160	160	192	192	192	194

Machinery and Equipment List

Sr.	Name	A/U	Unit Prices	Year 1		Year 2		Total	
				Qty	Amount US\$	Qty	Amount US\$	Qty	Amount US\$
1	Pressurized kneader	set	22,280	2	\$44,560	1	\$22,280	3	\$66,840
2	Compounding Machine	set	20,600	1	\$20,600	0	\$0	1	\$20,600
3	Large Cylinder	set	22,350	4	\$89,400	3	\$67,050	7	\$156,450
4	Rubber Calender Machine	set	11,500	1	\$11,500	0	\$0	1	\$11,500
5	Rubber Cutting-Die Machine	set	734	1	\$734	1	\$734	2	\$1,468
6	Calender Machine	set	9,180	1	\$9,180	1	\$9,180	2	\$18,360
7	Slicer Machine	set	10,800	3	\$32,400	3	\$32,400	6	\$64,800
8	Half Fork Machine	set	5,600	2	\$11,200	2	\$11,200	4	\$22,400
9	Splicing Machine	set	11,800	1	\$11,800	0	\$0	1	\$11,800
10	EVA Brushing Machine	set	12,450	1	\$12,450	1	\$12,450	2	\$24,900
11	EVA Cutting Cutter	set	4,720	1	\$4,720	1	\$4,720	2	\$9,440
12	Rubber Cutting Machine	set	656	1	\$656	1	\$656	2	\$1,312
13	Crusher Machine	set	4,590	1	\$4,590	1	\$4,590	2	\$9,180
14	EVA Blowing Machine	set	58,600	4	\$234,400	4	\$234,400	8	\$468,800
15	High Pressure Pump	set	656	2	\$1,312	2	\$1,312	4	\$2,624
16	Scale	set	66	5	\$330	5	\$330	10	\$660
17	Hydraulic Press Machine	set	6,500	2	\$13,000	2	\$13,000	4	\$26,000
18	Grinding Powder Machine	set	14,426	1	\$14,426	1	\$14,426	2	\$28,852
19	MD Machine	set	18,360	3	\$55,080	3	\$55,080	6	\$110,160
20	Rubber Machine	set	10,200	6	\$61,200	6	\$61,200	12	\$122,400
21	Hydraulic Press Machine (cooling)	set	2,360	5	\$11,800	5	\$11,800	10	\$23,600
22	Upright Heating Machine	set	1,050	4	\$4,200	4	\$4,200	8	\$8,400
23	Granulating Machine	set	13,120	1	\$13,120	1	\$13,120	2	\$26,240
24	Electronic Scale	set	197	10	\$1,970	10	\$1,970	20	\$3,940
25	Vulcanizing Tank	set	2,632	1	\$2,632	0	\$0	1	\$2,632
26	Boiler	set	80,000	1	\$80,000	1	\$80,000	2	\$160,000
27	Gas Tank	set	787	2	\$1,574	2	\$1,574	4	\$3,148
28	Water Pump	set	393	3	\$1,179	3	\$1,179	6	\$2,358
29	High Pressure Pulse Filter	set	4,406	3	\$13,218	3	\$13,218	6	\$26,436
30	Manual Forklift	set	367	3	\$1,101	3	\$1,101	6	\$2,202
31	Cooling Tower	set	3,672	5	\$18,360	5	\$18,360	10	\$36,720
32	Mould	set	250	100	\$25,000	100	\$25,000	200	\$50,000

Sr.	Name	A/U	Unit Price	Year 1		Year 2			Total	
				Qty	Amount US\$	Qty	Amount US\$	US\$	Qty	Amount US\$
33	Pull Testing Machine	set	6,558	1	\$6,558	0	\$0		1	\$6,558
34	Vulcanization Testing Machine	set	7,062	1	\$7,062	0	\$0		1	\$7,062
35	Color Match Testing Machine	set	800	1	\$800	0	\$0		1	\$800
36	Thermostated Testing Machine	set	800	1	\$800	0	\$0		1	\$800
37	Wear-Resisting Testing Machine	set	944	1	\$944	1	\$944		2	\$1,888
38	Winding-Resisting Testing Machine	set	1,440	1	\$1,440	0	\$0		1	\$1,440
39	Stretch Testing Machine	set	472	1	\$472	1	\$472		2	\$944
40	EPE foam foaming machine	set	40,985	1	\$40,985	0	\$0		1	\$40,985
41	Cutting Die Machine	set	2,800	23	\$64,400	22	\$61,600		45	\$126,000
42	Assembly Line	set	16,050	5	\$80,250	4	\$64,200		9	\$144,450
43	Electric Heating Machine	set	600	18	\$10,800	18	\$10,800		36	\$21,600
44	Hydraulic Sole Attaching Machine	set	656	6	\$3,936	6	\$3,936		12	\$7,872
45	Guling Machine	set	1,800	9	\$16,200	9	\$16,200		18	\$32,400
46	Toe-Lasting Machine	set	17,048	3	\$51,144	3	\$51,144		6	\$102,288
47	Heel-Lasting Machine	set	3,278	2	\$6,556	1	\$3,278		3	\$9,834
48	Vulcanization Machine	set	11,803	2	\$23,606	1	\$11,803		3	\$35,409
49	Refrigerator Machine	set	11,803	2	\$23,606	1	\$11,803		3	\$35,409
50	Parching Line Machine	set	105	6	\$630	6	\$630		12	\$1,260
51	Grinding Shoes Machine	set	1,800	20	\$36,000	20	\$36,000		40	\$72,000
52	Air Compressor	set	660	12	\$7,920	12	\$7,920		24	\$15,840
53	Last Puller Machine	set	1,836	2	\$3,672	1	\$1,836		3	\$5,508
54	Sole Molding Machine	set	13,114	2	\$26,228	1	\$13,114		3	\$39,342
55	Tensile Machine	set	800	1	\$800	1	\$800		2	\$1,600
56	Needle Checking Machine	set	15,000	7	\$105,000	7	\$105,000		14	\$210,000
57	Drawing Line Machine	set	800	3	\$2,400	3	\$2,400		6	\$4,800
58	Vacuum Cleaner Machine	set	1,200	5	\$6,000	5	\$6,000		10	\$12,000
59	Shaper Machine	set	6,558	1	\$6,558	1	\$6,558		2	\$13,116
60	Pressing Machine	set	2,520	2	\$5,040	2	\$5,040		4	\$10,080
61	Roller Pressing Machine	set	1,230	3	\$3,690	3	\$3,690		6	\$7,380
62	Messaging Machine	set	1,705	2	\$3,410	2	\$3,410		4	\$6,820
63	Box Folding Machine	set	158	3	\$474	3	\$474		6	\$948
64	Seal Package Machine	set	66	5	\$330	5	\$330		10	\$660
65	Drilling Machine	set	350	8	\$2,800	7	\$2,450		15	\$5,250
66	Lacing Machine	set	787	5	\$3,935	5	\$3,935		10	\$7,870
67	Ventilator	set	75	50	\$3,750	50	\$3,750		100	\$7,500
68	Lasting Machine	set	472	1	\$472	1	\$472		2	\$944
69	X-Ray Needle Checking Machine	set	8,000	1	\$8,000	1	\$8,000		2	\$16,000
70	Balers	set	682	2	\$1,364	2	\$1,364		4	\$2,728

Sr.	Name	A/U	Unit Prices	Year 1		Year 2		Total	
				Qty	Amount US\$	Qty	Amount US\$	Qty	Amount US\$
71	EVA Ultraviolet irradiation Machine	set	2,886	1	\$2,886	1	\$2,886	2	\$5,772
72	Turnover tank (big)	set	15	250	\$3,750	250	\$3,750	500	\$7,500
73	Turnover tank (small)	set	10	1,000	\$10,000	1,000	\$10,000	2,000	\$20,000
74	Knitting wool machine	set	4,023	1	\$4,023	0	\$0	1	\$4,023
75	Single Needle Post Bed Sewing Machine	set	385	750	\$288,750	750	\$288,750	1,500	\$577,500
76	Overlocking Machine	set	328	5	\$1,640	5	\$1,640	10	\$3,280
77	Computer Sewing Machine	set	2,623	3	\$7,869	2	\$5,246	5	\$13,115
78	Knot Tying Machine	set	1,246	5	\$6,230	5	\$6,230	10	\$12,460
79	Button Holing Machine	set	800	1	\$800	1	\$800	2	\$1,600
80	Wheel Machine	set	800	15	\$12,000	15	\$12,000	30	\$24,000
81	Peeling Machine	set	12,400	25	\$310,000	25	\$310,000	50	\$620,000
82	Pressure-Proof Machine	set	1,836	3	\$5,508	3	\$5,508	6	\$11,016
83	Tester	set	197	1	\$197	1	\$197	2	\$394
84	Semi-Automatic Grommet Machine	set	1,770	5	\$8,850	5	\$8,850	10	\$17,700
85	Flat Seaming Machine	set	590	1	\$590	1	\$590	2	\$1,180
86	Stereotyping Machine	set	590	3	\$1,770	2	\$1,180	5	\$2,950
87	Undersole Stitching Machine	set	1,311	3	\$3,933	2	\$2,622	5	\$6,555
88	Toe Cementing Machine	set	1,114	3	\$3,342	2	\$2,228	5	\$5,570
89	Drawing Line Machine	set	800	8	\$6,400	7	\$5,600	15	\$12,000
90	Striping Machine	set	472	1	\$472	1	\$472	2	\$944
91	Cutting Machine	set	472	5	\$2,360	5	\$2,360	10	\$4,720
92	Automatic Grommet Machine	set	1,770	3	\$5,310	2	\$3,540	5	\$8,850
93	Marks Stitching Machine	set	1,574	3	\$4,722	2	\$3,148	5	\$7,870
94	Handled Needle checking machine	set	8	15	\$120	15	\$120	30	\$240
95	Hot melt adhesive machine	set	5,902	3	\$17,706	3	\$17,706	6	\$35,412
96	High Frequency Machine	set	2,623	5	\$13,115	5	\$13,115	10	\$26,230
97	Spreading Machine	set	7,869	1	\$7,869	1	\$7,869	2	\$15,738
98	Shoes Open Paper Machine	set	5,902	1	\$5,902	0	\$0	1	\$5,902
99	Push cloth cutting machine	set	820	1	\$820	1	\$820	2	\$1,640
100	Exclusion Machine	set	19,016	2	\$38,032	1	\$19,016	3	\$57,048
101	Horizontal Injection Molding Machine	set	78,000	5	\$390,000	5	\$390,000	10	\$780,000
102	Vertical Injection Moulding Machine	set	8,300	5	\$41,500	5	\$41,500	10	\$83,000
103	TPR Disk Machine	set	52,459	1	\$52,459	0	\$0	1	\$52,459
104	Breaking Machine	set	3,672	2	\$7,344	1	\$3,672	3	\$11,016
105	Mixing Machine	set	262	2	\$524	1	\$262	3	\$786

Sr.	Name	A/U	Unit Prices	Year 1		Year 2		Total	
				Qty	Amount US\$	Qty	Amount US\$	Qty	Amount US\$
106	Dryer	set	1,115	3	\$3,345	2	\$2,230	5	\$5,575
107	Webbing Machine	set	3,000	4	\$12,000	4	\$12,000	8	\$24,000
108	Sizing Machine	set	2,623	1	\$2,623	1	\$2,623	2	\$5,246
109	Belt Turning Machine	set	525	1	\$525	1	\$525	2	\$1,050
110	Inverted Yam Machine	set	3,672	1	\$3,672	1	\$3,672	2	\$7,344
111	Polyurethane Assembly	set	28,852	1	\$28,852	0	\$0	1	\$28,852
112	Generator	set	17,049	2	\$34,098	2	\$34,098	4	\$68,196
113	Lifting Machine	set	1,574	1	\$1,574	0	\$0	1	\$1,574
114	Lifting Hoist	set	66	3	\$198	3	\$198	6	\$396
115	PP Rope Machine Line	set	5,800	1	\$5,800	0	\$0	1	\$5,800
116	Automatic Dis J Machine	set	5,246	1	\$5,246	1	\$5,246	2	\$10,492
117	PVC Mixing Machine	set	210	1	\$210	1	\$210	2	\$420
118	Vacuum Pump	set	656	2	\$1,312	1	\$656	3	\$1,968
119	Automatic Dry Line	set	2,164	1	\$2,164	0	\$0	1	\$2,164
120	Hydraulic Forklift	set	3,672	1	\$3,672	1	\$3,672	2	\$7,344
121	Grooving Machine	set	12,459	1	\$12,459	1	\$12,459	2	\$24,918
122	Blister Package Machine	set	1,574	1	\$1,574	0	\$0	1	\$1,574
123	Jigsaw Pressing Machine	set	8,525	1	\$8,525	0	\$0	1	\$8,525
124	Jigsaw Extrusion Machine	set	8,525	1	\$8,525	0	\$0	1	\$8,525
125	Roller Cutting Machine	set	13,115	1	\$13,115	1	\$13,115	2	\$26,230
126	Vacuum Package Machine	set	13,115	1	\$13,115	0	\$0	1	\$13,115
127	Shrink-Wrap Package Machine	set	1,836	1	\$1,836	1	\$1,836	2	\$3,672
128	Roller Cementing machine	set	16,393	1	\$16,393	0	\$0	1	\$16,393
129	Embossing Machine	set	3,934	1	\$3,934	0	\$0	1	\$3,934
130	Computer Paper Pattern Cutting Machine	set	6,557	1	\$6,557	0	\$0	1	\$6,557
131	Shoemaster shoes Edition Machine	set	52,459	1	\$52,459	0	\$0	1	\$52,459
132	Special bar code Machine	set	315	1	\$315	1	\$315	2	\$630
133	Audio Equipment	set	1,180	1	\$1,180	0	\$0	1	\$1,180
134	Monitoring Equipment	set	6,557	1	\$6,557	1	\$6,557	2	\$13,114
135	Vernier caliper	set	10	10	\$100	10	\$100	20	\$200
136	CNC Machine	set	2,350	3	\$7,050	2	\$4,700	5	\$11,750
137	Edge Milling Machine	set	47	2	\$94	2	\$94	4	\$188
138	Vacuum pump	set	720	4	\$2,880	4	\$2,880	8	\$5,760
139	Bench vice 6"	set	47	2	\$94	2	\$94	4	\$188
140	Electric planer	set	26	2	\$52	2	\$52	4	\$104
141	Saw 0.4KW	set	60	2	\$120	2	\$120	4	\$240
142	Hand file	set	6	5	\$30	5	\$30	10	\$60
143	Electronic Drill 0.32KW	set	13	4	\$52	4	\$52	8	\$104

Sr	Name	A/U	Unit Price	Year 1		Year 2		Total	
				Qty	Amount US\$	Qty	Amount US\$	Qty	Amount US\$
144	Radios	set	33	15	\$495	15	\$495	30	\$990
145	Heating Gun 1.6KW	set	21	3	\$63	3	\$63	6	\$126
146	Tailor shears	set	16	10	\$160	10	\$160	20	\$320
147	Sanding Machine 0.3KW	set	26	5	\$130	5	\$130	10	\$260
148	Spray gun w-71	set	66	8	\$528	7	\$462	15	\$990
149	Air filter	set	10	10	\$100	10	\$100	20	\$200
150	Polishing Machine 1.2KW	set	39	4	\$156	4	\$156	8	\$312
151	Angle Grinder 2.2KW	set	47	4	\$188	4	\$188	8	\$376
152	Open spanner	set	20	5	\$100	5	\$100	10	\$200
153	Box spanner	set	20	5	\$100	5	\$100	10	\$200
154	Socket key	set	26	5	\$130	5	\$130	10	\$260
155	Monkey wrench	set	56	5	\$280	5	\$280	10	\$560
156	inner hexagon spanner	set	13	5	\$65	5	\$65	10	\$130
157	Pipe clamp	set	13	2	\$26	2	\$26	4	\$52
158	Pliers	set	2	10	\$20	10	\$20	20	\$40
159	Needle-nose pliers	set	2	10	\$20	10	\$20	20	\$40
160	Bolt cipper	set	4	5	\$20	5	\$20	10	\$40
161	Hydraulic clamp	set	16	2	\$32	2	\$32	4	\$64
162	Crimping pliers	set	2	5	\$10	5	\$10	10	\$20
163	Scerw driver	set	29	5	\$145	5	\$145	10	\$290
164	Ammeter	set	34	5	\$170	5	\$170	10	\$340
165	Multimeter	set	39	5	\$195	5	\$195	10	\$390
166	Megger	set	26	5	\$130	5	\$130	10	\$260
167	Electric hand drill	set	16	5	\$80	5	\$80	10	\$160
168	Grasing machine	set	47	5	\$235	5	\$235	10	\$470
169	Drilling machine	set	525	2	\$1,050	2	\$1,050	4	\$2,100
170	Bench vice	set	105	2	\$210	2	\$210	4	\$420
171	Electric welding machine	set	2,623	1	\$2,623	1	\$2,623	2	\$5,246
172	Argon fluoride welder	set	1,574	1	\$1,574	0	\$0	1	\$1,574
173	Cutting off machine	set	630	2	\$1,260	2	\$1,260	4	\$2,520
174	Hacksaw	set	3	5	\$15	5	\$15	10	\$30
175	Complement Machine	set	918	1	\$918	1	\$918	2	\$1,836
176	Embroidery Machine	set	13,100	4	\$52,400	3	\$39,300	7	\$91,700
177	Vertical Sawing Machine	set	1,115	4	\$4,460	4	\$4,460	8	\$1,920
178	Saw Blade Machine	set	367	1	\$367	0	\$0	1	\$367
179	Grinding Machine	set	118	1	\$118	0	\$0	1	\$118
180	Mold Machine	set	1,311	1	\$1,311	0	\$0	1	\$1,311

Sr.	Name	A./U.	Unit Prices	Year 1		Year 2		Total	
				Qty	Amount US\$	Qty	Amount US\$	Qty	Amount US\$
182	Pressure Planing Machine	set	1,311	1	\$1,311	0	\$0	1	\$1,311
183	Circular Saw	set	1,574	1	\$1,574	0	\$0	1	\$1,574
184	Cementing Machine	set	5,902	2	\$11,804	2	\$11,804	4	\$23,608
185	Cutting Saw	set	2,164	1	\$2,164	1	\$2,164	2	\$4,328
186	Pumping Out Machine	set	472	1	\$472	1	\$472	2	\$944
187	Screening Machine	set	2,623	1	\$2,623	1	\$2,623	2	\$5,246
188	Plate Machine	set	3,148	1	\$3,148	1	\$3,148	2	\$6,296
189	Printing Working Line	set	3,260	6	\$19,560	6	\$19,560	12	\$39,120
190	Stencil Oven	set	1,246	1	\$1,246	0	\$0	1	\$1,246
191	Monochrome printing machine	set	7,082	1	\$7,082	0	\$0	1	\$7,082
192	CNC Machine	set	29,390	1	\$29,390	1	\$29,390	2	\$58,780
193	Computer Numerical Control Machine	set	38,525	1	\$38,525	0	\$0	1	\$38,525
194	Grinding Machine	set	7,082	1	\$7,082	0	\$0	1	\$7,082
195	Forming Machine	set	2,885	1	\$2,885	0	\$0	1	\$2,885
196	Casting Machine	set	787	1	\$787	0	\$0	1	\$787
197	Wire-Electrode Cutting Machine	set	12,080	2	\$24,160	1	\$12,080	3	\$36,240
198	Electric Pulse	set	7,213	1	\$7,213	0	\$0	1	\$7,213
199	Punching Machine	set	3,738	1	\$3,738	0	\$0	1	\$3,738
200	Milling Machine	set	3,672	1	\$3,672	0	\$0	1	\$3,672
201	Lathe	set	7,869	1	\$7,869	0	\$0	1	\$7,869
202	Mould Polishing Machine	set	656	1	\$656	0	\$0	1	\$656
203	Argon welder	set	1,574	1	\$1,574	0	\$0	1	\$1,574
204	Electric Welder	set	656	1	\$656	0	\$0	1	\$656
205	Compressor	set	525	1	\$525	0	\$0	1	\$525
206	Work Bench	set	472	1	\$472	0	\$0	1	\$472
207	Manual Fork	set	367	1	\$367	0	\$0	1	\$367
208	Electric Grinder	set	630	1	\$630	1	\$630	2	\$1,260
209	Lathe Cutter	set	2,098	1	\$2,098	0	\$0	1	\$2,098
210	3D Scanner	set	10,192	1	\$10,192	0	\$0	1	\$10,192
211	2D Plane Scanning	set	105	1	\$105	0	\$0	1	\$105
212	Horizontal Saw Mill	set	2,623	1	\$2,623	0	\$0	1	\$2,623
213	Vertical Sawing Machine	set	2,623	1	\$2,623	1	\$2,623	2	\$5,246
214	Facing Machine	set	787	1	\$787	0	\$0	1	\$787
215	Plotter	set	3,148	1	\$3,148	0	\$0	1	\$3,148
216	Wood Former	set	15,738	1	\$15,738	1	\$15,738	2	\$31,476
217	Iron Mould	set	9,180	1	\$9,180	1	\$9,180	2	\$18,360
218	Argon Welder	set	1,235	1	\$1,235	0	\$0	1	\$1,235

Sr.	Name	A/U	Unit Prices	Year 1		Year 2		Total	
				Qty	Amount US\$	Qty	Amount US\$	Qty	Amount US\$
219	Linear Cutting	set	1,055	1	\$1,055	1	\$1,055	2	\$2,110
220	Drilling Machine	set	1,574	1	\$1,574	0	\$0	1	\$1,574
221	Electric Welding Machine	set	315	1	\$315	0	\$0	1	\$315
222	Pump	set	839	1	\$839	0	\$0	1	\$839
223	Set Auger Drilling Machine	set	1,574	1	\$1,574	0	\$0	1	\$1,574
224	Bench Drill Press	set	393	1	\$393	1	\$393	2	\$786
225	Operating Platform	set	105	5	\$525	5	\$525	10	\$1,050
226	Tools	set	1,049	1	\$1,049	0	\$0	1	\$1,049
227	Post-Processing	set	19,672	1	\$19,672	1	\$19,672	2	\$39,344
228	Drill machine	set	525	1	\$525	1	\$525	2	\$1,050
229	Electric Grinder	set	590	1	\$590	1	\$590	2	\$1,180
230	Pliers	set	66	2	\$132	2	\$132	4	\$264
231	Pole Machine	set	2,623	1	\$2,623	0	\$0	1	\$2,623
232	Shaping Machine	set	52	2	\$104	1	\$52	3	\$156
233	Operatian Stage	set	210	1	\$210	0	\$0	1	\$210
234	Protective Bar	set	525	1	\$525	0	\$0	1	\$525
235	Molding Machine	set	525	2	\$1,050	2	\$1,050	4	\$2,100
236	Prsss Pot Machine	set	210	1	\$210	0	\$0	1	\$210
237	Printing machine	set	4,197	1	\$4,197	0	\$0	1	\$4,197
238	Impact version machine	set	5,246	1	\$5,246	0	\$0	1	\$5,246
239	paper cutting machine	set	13,115	1	\$13,115	0	\$0	1	\$13,115
240	Four open four-color offset press	set	532,000	1	\$532,000	0	\$0	1	\$532,000
241	Glazing machine	set	12,000	1	\$12,000	0	\$0	1	\$12,000
242	laminator	set	10,492	1	\$10,492	0	\$0	1	\$10,492
243	full-automaticpaper	set	16,738	1	\$16,738	0	\$0	1	\$16,738
244	Four open die cutting machine	set	3,650	2	\$7,300	1	\$3,650	3	\$10,950
245	Split die cutting machine	set	5,748	2	\$11,496	1	\$5,748	3	\$17,244
246	Shoe machine	set	5,902	1	\$5,902	0	\$0	1	\$5,902
247	Split turquoise shrinking	set	159,365	1	\$159,365	0	\$0	1	\$159,365
248	Stamping machine	set	5,246	1	\$5,246	0	\$0	1	\$5,246
249	Knitting machine	set	78	125	\$9,750	125	\$9,750	250	\$19,500
250	Needle on machine	set	320	1	\$320	0	\$0	1	\$320
251	The winding machine	set	160	1	\$160	1	\$160	2	\$320
252	Waxing machine	set	400	1	\$400	0	\$0	1	\$400
253	Annealing machine	set	160	1	\$160	1	\$160	2	\$320
254	High-speed shuttleless	set	800	2	\$1,600	2	\$1,600	4	\$3,200
255	Automatic heading machine	set	4,000	1	\$4,000	1	\$4,000	2	\$8,000
256	Artificial bearing machine	set	800	1	\$800	0	\$0	1	\$800

Sr.	Name	A/U	Unit Prices	Year 1		Year 2		Total	
				Qty	Amount US\$	Qty	Amount US\$	Qty	Amount US\$
257	Wrapping machine	set	160	1	\$160	0	\$0	1	\$160
258	Colored steel	set	1,600	3	\$4,800	3	\$4,800	6	\$9,600
259	Dewatering machine	set	480	1	\$480	1	\$480	2	\$960
260	Yarn machine	set	120	1	\$120	0	\$0	1	\$120
261	Belt press	set	120	1	\$120	0	\$0	1	\$120
262	motor	set	16	10	\$160	10	\$160	20	\$320
263	A barrel	set	4	50	\$200	50	\$200	100	\$400
264	Machine accessories	set	1,200	1	\$1,200	0	\$0	1	\$1,200
265	Computerized Terry Jacquard Weave Dual-Use Machine	set	3,672	2	\$7,344	2	\$7,344	4	\$14,688
266	Sock Machine	set	2,150	32	\$68,800	32	\$68,800	64	\$137,600
267	Sewing Top Machine	set	1,650	3	\$4,950	2	\$3,300	5	\$8,250
268	Circular knitting machine	set	40,800	1	\$40,800	0	\$0	1	\$40,800
269	Forklift	set	16,000	2	\$32,000	1	\$16,000	3	\$48,000
270	Steel Rack	set	2,800	35	\$98,000	15	\$42,000	50	\$140,000
271	Mowing Machine	set	3,000	1	\$3,500	0	\$0	1	\$3,500
Total Amount (IN USD)					\$4,300,000		2,800,000	6,153	\$7,100,000

Office Equipment (in local purchase)

Sr.	Name	A/U	Unit Prices	Year 1		Year 2		Total
				Qty	Amount US\$	Qty	Amount US\$	Amount US\$
1	Computer	set	320	10	\$3,200	10	\$3,200	\$6,400
2	Air Conditioner(5P)	set	780	5	\$3,900	5	\$3,900	\$7,800
3	Air Conditioner(3P)	set	486	5	\$2,430	5	\$2,430	\$4,860
4	Air Conditioner(1.5P)	set	300	100	\$30,000	100	\$30,000	\$60,000
5	Fax machine	set	390	2	\$780	2	\$780	\$1,560
6	Multi Color Printer	set	656	2	\$1,312	2	\$1,312	\$2,624
7	Single Color Printer	set	289	2	\$578	2	\$578	\$1,156
8	Telephone	set	26	10	\$260	10	\$260	\$520
9	Furniture	set	490	1	\$490	1	\$490	\$980
10	Computer	set	525	2	\$1,050	1	\$525	\$1,575
11	Printer	set	525	1	\$525	0	\$0	\$525
12	Copy Milling	set	10,425	1	\$10,425	0	\$0	\$10,425
13	Desktop computer	set	525	2	\$1,050	1	\$525	\$1,575
Total Amount (IN USD)					56,000		44,000	100,000

APPENDIX E

Environmental Monitoring Result

Noise Result for Eva Department



No(28), Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Melody Global Company Limited
Project Location:	Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar.
Sampling Date:	August 16 th , 2023
Sampling Time:	24 hrs
Sampling Condition:	
Sampling By:	Environmental Team Represented by Myanwei Environmental Solutions Company Limited.

Instrument	Type	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30-130 dB	Eva department {17°15'5.97"N, 96°27'36.09"E}

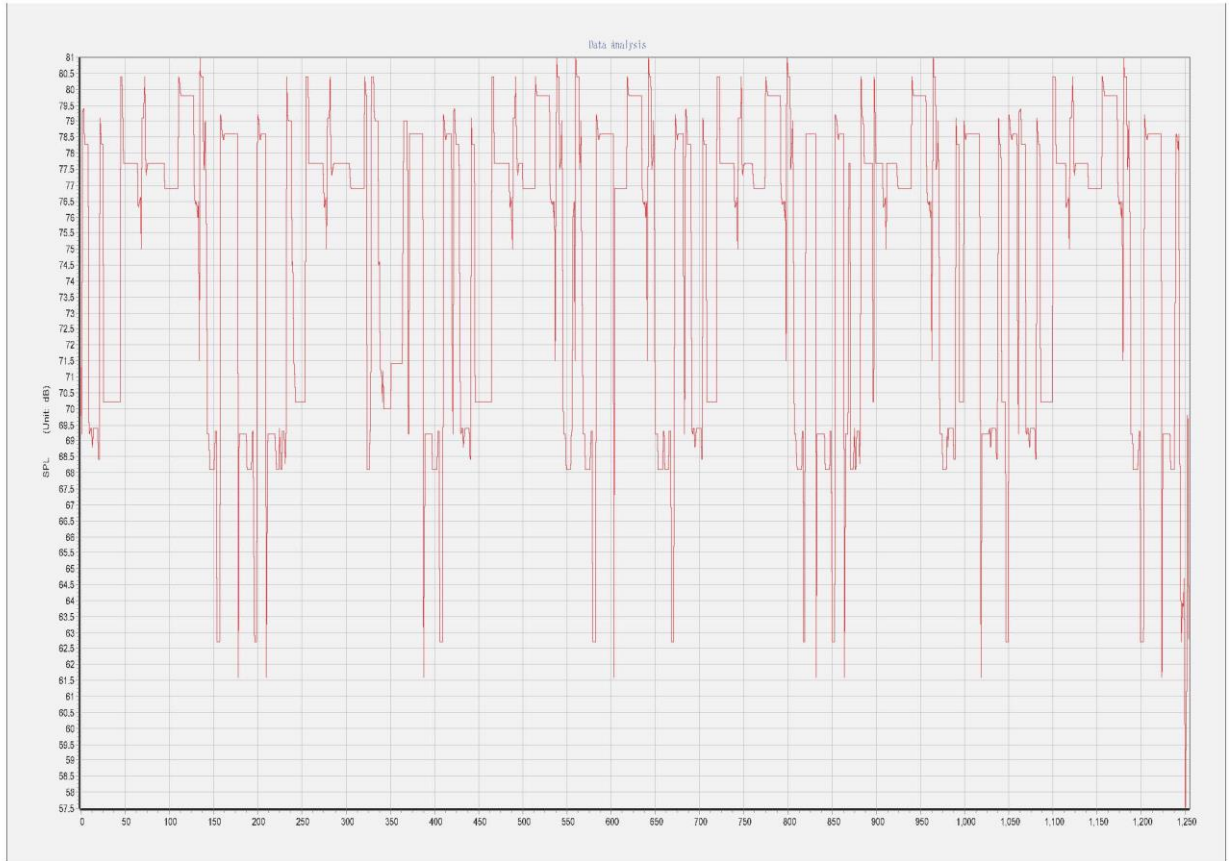
No.	Place	Unit	Result	Standard	Remark
1.	Eva department {17°15'5.97"N, 96°27'36.09"E}	dBA	71.87	70 dBA	Above the limit

National Environmental Quality (Emission) Guideline

Receptor	One Hour Laeq (dBA)	
	Daytime	Nighttime
	7:00-22:00 (10:00-22:00 for public holidays)	22:00-7:00 (22:00-10:00 for public holidays)
Residential, Institutional, Educational	55	45
Institutional, Commercial	70	70

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Noise Monitoring Graph for Eva Department



Noise Result for Stitching Department



No(28), Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Melody Global Company Limited
Project Location:	Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar.
Sampling Date:	August 16 th , 2023
Sampling Time:	24 hrs
Sampling Condition:	
Sampling By:	Environmental Team Represented by Myanwei Environmental Solutions Company Limited.

Instrument	Type	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30-130 dB	Stitching department (17°15'3.68"N, 96°27'33.29"E)

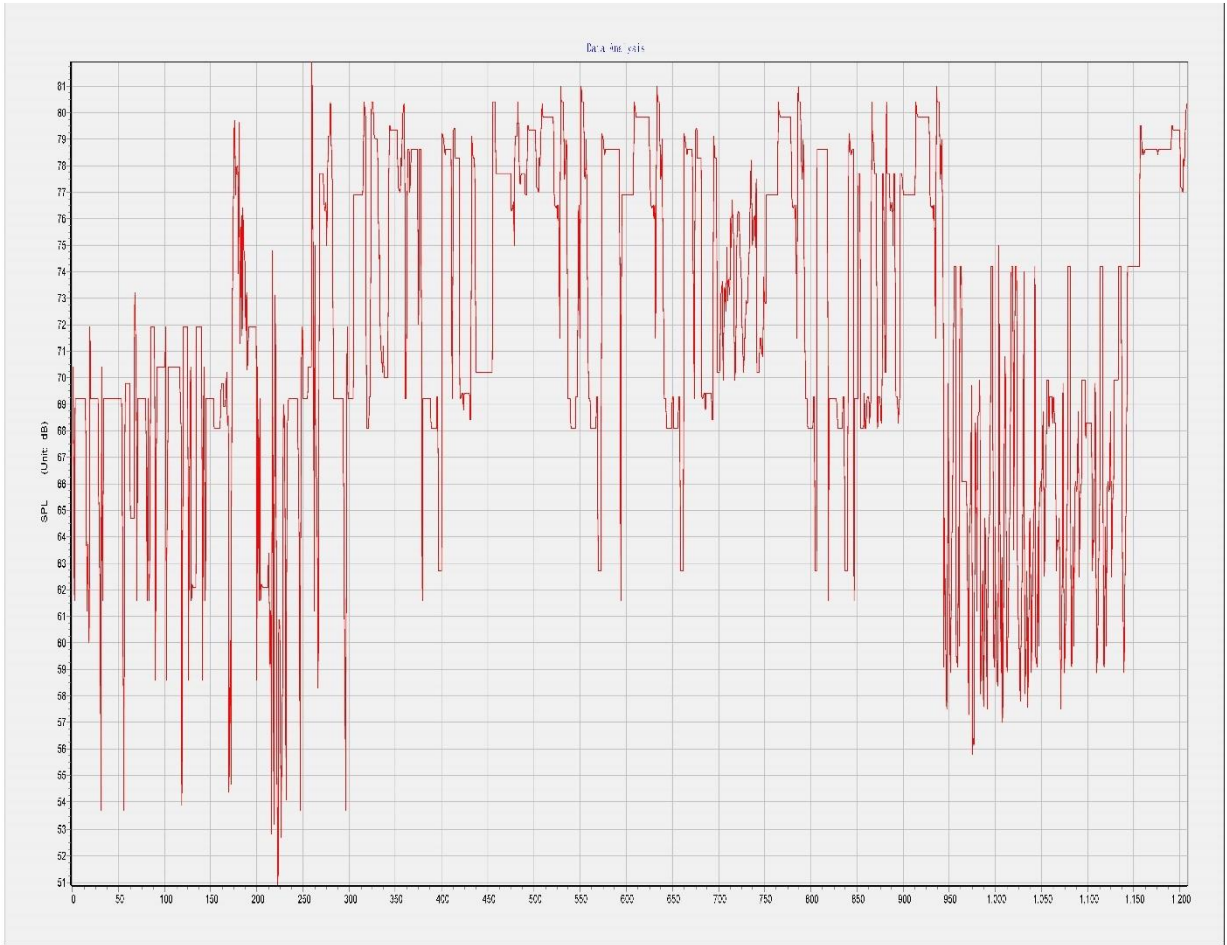
No.	Place	Unit	Result	Standard	Remark
1.	Stitching department (17°15'3.68"N, 96°27'33.29"E)	dBA	67.03	70 dBA	Normal

National Environmental Quality (Emission) Guideline

Receptor	One Hour Laeq (dBA)		Guideline value	
	Daytime		Nighttime	
	7:00-22:00 (10:00-22:00 for public holidays)		22:00-7:00 (22:00-10:00 for public holidays)	
Residential, Institutional, Educational	55		45	
Institutional, Commercial	70		70	

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Noise Monitoring Graph for Stitching Department



Outdoor Air Quality Result



No(28), Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Melody Global Company Limited
Project Location:	Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar
Sampling Date:	August 16 th , 2023
Sampling Time:	24 hrs
Sampling Condition:	
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
OCEANUS-AQM-09	PM ₁₀ , PM _{2.5} , O ₃ , NO ₂ , SO ₂	0-999.9 (µg/m ³)	Outdoor Area

National Environmental Quality (Emission) Guideline

Parameter	Averaging period	Guideline value	Unit
PM 10 ^a	1-year	20	(µg/m ³)
	24-hour	50	
PM 2.5 ^a	1-year	10	(µg/m ³)
	24-hour	25	
O ₃ ^a	8-hour	100	(µg/m ³)
NO ₂ ^a	1-year	40	(µg/m ³)
	1-hour	200	
SO ₂ ^a	24-hour	20	(µg/m ³)
	10-min	500	

a. Values from air quality guidelines-global update 2005: particulate matter, ozone, nitrogen dioxide and sulfur dioxide.

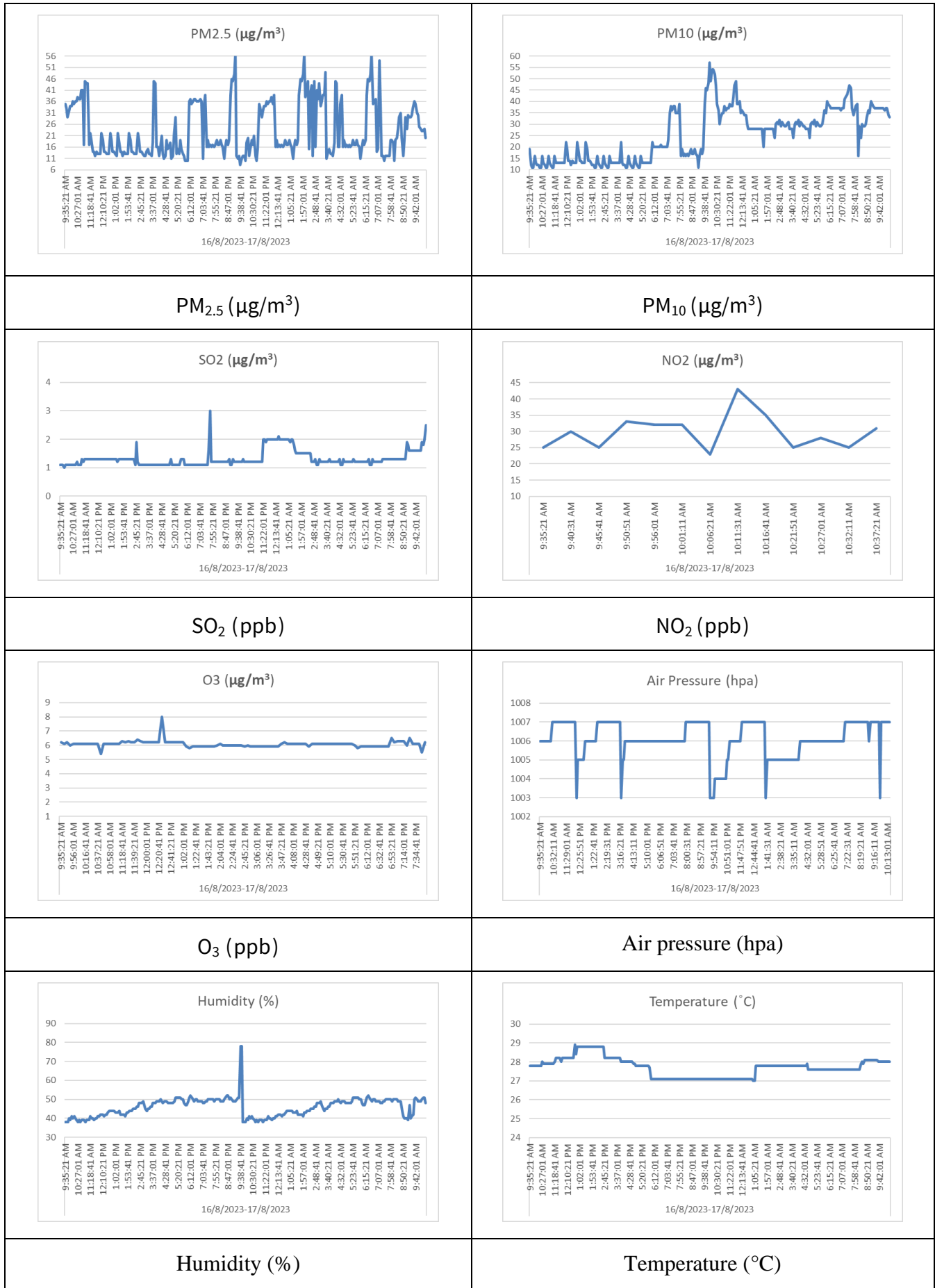
Monitoring Result

Parameters	Observed value	Guideline value	Unit	Organization	Period
PM ₁₀	25.45	50	µg/m ³	NEQG	24hours
PM _{2.5}	23.27	25	µg/m ³	NEQG	24hours
SO ₂	1.32	20	µg/m ³	NEQG	24hours

NO ₂	29.77	200	µg/m ³	NEQG	1 hour
O ₃	6.08	100	µg/m ³	NEQG	8hours


LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Outdoor Air Quality Graphs



Light Result



No (001), 17 Residence, Min Ye Kyaw Swar Street, Yankin Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 9777929885, 9777922169, Mobile: (+95) 9421137569; Website: www.myanweiconsulting.com

Project Name:	Melody Global Company Limited
Project Location:	Plot No. 26/27/28, Industrial Area, Bago Region, Myanmar.
Sampling Date:	7 th June, 2023
Sampling Time:	Working Period
Sampling Condition:	Normal
Sampling By:	Environmental Team Represented by Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
Uni-T (Luminometer)	UT380 Series	100 times/second	17°15'1.54"N, 96°27'34.70"E

IESNA Lighting Handbook

Department	Type of Light	Wattage of Light	Lux Level
Fabric store	Fluorescent tube light	40 W	300
Sewing floor	LED tube light	20 W (T8)	400
Cutting floor	LED tube light	22 W (T8)	1000
Finishing	LED tube light	28 W (T8)	600
Inspection points	LED tube light	28 W (T8)	900 (except 1500 at audit tables)
Sampling	LED tube light	22 W (T8)	500
Office areas	Fluorescent tube light	36 W (T)	300

Light Intensity Measurement Results

No	Measure area	Unit	Result	Standard
1	Warehouse	Lux	312	300
2	Cutting Area	Lux	1022	1000
3	Quality Control	Lux	1078	900
4	Stitching Area	Lux	631	400
5	Packing Area	Lux	784	600



LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Water Quality (Tube well Water Quality)

ALARM Ecological Laboratory
Water Testing Result Report



Report Number: EL-WR-23-01877			Date: August 23, 2023		
Client Information Client Name : Melody Global Co., Ltd Organization : - Client ID : - Registration Date & Time : 17.8.2023 ; 3:00 PM Contact : 09-688831113 Email : env@myanweiconsulting.com Testing Purpose : For Monitoring			Sample Information Sample ID : 10009 Sample Name : Tube Well Sample Type / Source : Ground Sampling Date & Time : - Sample Location : Bago Latitude : - Longitude : -		
Testing Results <i>This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service. This report shall not be reproduced except in full, without written approval of the laboratory</i>					
Sr.	Quality Parameters	Results	Units	Drinking Standard	Remarks
1	pH ¹	7.2	S.U	6.5 - 8.5 ^c	Normal
2	Turbidity ³	8	FAU	≤5 ^c	Turbid
3	Total Solids ^{3a}	104	mg/L	-	-
4	Hardness ³	27	mg/L	≤500 ^c	Normal
5	Chloride ³	2.1	mg/L	≤250 ^c	Normal
6	Free Cyanide ³	<0.01	mg/L	-	-
7	Arsenic ⁸	0.005	mg/L	≤0.05 ^a	Normal
8	Copper ⁷	0.02	mg/L	≤2 ^b	Normal
9	Iron ⁷	0.3	mg/L	≤1 ^c	Normal
10	Lead ⁷	ND	mg/L	≤0.01	LOD = 0.1 mg/L
11	Manganese ³	<0.2	mg/L	≤0.4 ^c	Normal
12	Zinc ³	<0.02	mg/L	≤3 ^c	Normal
"ND" = Not Detected		"LOD" = Lower limit of detection		" - " = No Reference Standard	
Tested by		Checked by		Approved by	
Daw May Myat Khine Lab. Technician II Ecological Laboratory ALARM		Daw Lin Myat Aung Lab. Technician I Ecological Laboratory ALARM		Dr. Aye Aye Win Laboratory In Charge Ecological Laboratory (ALARM)	

No.237, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

Water Quality (Drinking Water Quality)



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

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

W0623 158

WATER QUALITY TEST RESULTS FORM

Client Melody Global
 Nature of Water Drinking Water
 Location Bago
 Date and Time of collection 7.6.2023
 Date and Time of arrival at Laboratory 7.6.2023
 Date and Time of commencing examination 7.6.2023
 Date and Time of completing 8.6.2023

Results of Water Analysis

**WHO Drinking Water Guideline
(Geneva - 1993)**

pH	7.3	6.5 - 8.5
Colour (True)	TCU	15 TCU
Turbidity	NTU	5 NTU
Conductivity	micro S/cm	
Total Hardness	mg/l as CaCO ₃	500 mg/l as CaCO ₃
Calcium Hardness	mg/l as CaCO ₃	
Magnesium Hardness	mg/l as CaCO ₃	
Total Alkalinity	mg/l as CaCO ₃	
Phenolphthalein Alkalinity	mg/l as CaCO ₃	
Carbonate (CaCO ₃)	mg/l as CaCO ₃	
Bicarbonate (HCO ₃)	mg/l as CaCO ₃	
Iron	mg/l	0.3 mg/l
Chloride (as CL)	mg/l	250 mg/l
Sodium Chloride (as NaCL)	mg/l	
Sulphate (as SO ₄)	mg/l	500 mg/l
Total Solids	mg/l	1500 mg/l
Total Suspended Solids	mg/l	
Total Dissolved Solids	mg/l	1000 mg/l
Manganese	mg/l	0.05 mg/l
Phosphate	mg/l	
Phenolphthalein Acidity	mg/l	
Methyl Orange Acidity	mg/l	
Salinity	ppt	

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

Tested by Hein
 Signature: Zaw Hein Co
 Name: B.Sc (Chem)
 Sr.Chemist

Approved by Soe Thit
 Signature: Soe Thit
 Name: B.E.(Civil) 1980
 Technical Officer
 ISO TECH Laboratory

(a division of WEG Co Ltd) ISO Tech Laboratory

Water Quality (Wastewater Quality Test)

ALARM Ecological Laboratory
Water Testing Result Report



Report Number: EL-WR-23-01878 Date: August 23, 2023

Client Information	Sample Information
Client Name : Melody Global Co., Ltd	Sample ID : 10010
Organization : -	Sample Name : Domestic Waste Water
Client ID : -	Sample Type / Source : Waste
Registration Date & Time : 17.8.2023 ; 3:00 PM	Sampling Date & Time : -
Contact : 09-688831113	Sample Location : Bago
Email : env@myanweiconsulting.com	Latitude : -
Testing Purpose : For Monitoring	Longitude : -

Testing Results

*This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.
This report shall not be reproduced except in full, without written approval of the laboratory*

Sr.	Quality Parameters	Results	Units	Emission Standard	Remarks
1	pH ¹	7.2	S.U	6.0 – 9.0 ^d	Normal
2	Turbidity ³	14	FAU	-	-
3	TDS ⁴	99	mg/L	≤2000 ^d	Normal
4	TSS ³	1	mg/L	≤50 ^d	Normal
5	Total Solids ^{3,4}	100	mg/L	-	-
6	Hardness ³	24	mg/L	-	-
7	Chloride ³	5	mg/L	-	-
8	BOD ₅ ⁶	12	mg/L	≤ 50 ^d	Normal
9	COD ³	25	mg/L	≤ 250 ^d	Normal
10	Iron ⁷	0.34	mg/L	≤ 3.5 ^d	Normal
11	Manganese ³	<0.2	mg/L	≤ 2 ^d	Normal

"ND" = Not Detected

"LOD" = Lower limit of detection

" - " = No Reference Standard

Tested by	Checked by	Approved by
 Daw May Mye Khine Lab. Technician II Ecological Laboratory ALARM	 Daw Lin Myat Aung Lab. Technician I Ecological Laboratory ALARM	 Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)

No.237, Corner of Shu Khin Thar Street & 7 Street, (3) Block, South Oakkalapa Township, Yangon.
Tel: 09-407496078, Email: aelab.2022@gmail.com

APPENDIX F

Material Safety Data Sheet of Chemicals

Color Masterbatch

Material Safety Data Sheet


一. Identification of the substance / preparation company

Product information: EVA Color Master Batch	
Product Number: E8504 · E11005 · E11006 · E61009 · E5505A · E4201F-3 · E1372 · E51006 · E31005 · E7504A	
Information on Producer/Supplier Name & Address & Phone:	
	DongGuan GangFengXing Plastic CO., LTD. Suzhou ChengFeng Plastic CO., LTD.
Suzhou	Weilai Road, Beiqiao Town, Xiangcheng District, Suzhou City, China. Phone: 86-512-65998671
DongGuan	No.33 Industrial Zone, ZhenXingWei Village, TangXia Town, DongGuan City, Guangdong, China. Phone: 86-769-38920688
Emergency Phone/Fax:	
Suzhou	Phone: 86-512-65998671 / Fax: 86-512-65998675
DongGuan	Phone: 86-769-38920688 / Fax: 86-769-3892008
Document No.	SZ14045
Version	7
Document type	Uncontrolled documents

二. Composition / information on Ingredients

Single		
English Name: None		
Synonyms: None		
Chemical Abstracts Number(CAS No.): None		
Percentage for Chemical Ingredient(%): 0%		
Mixing		
Chemical Characteristics: None		
Hazardous Components Name	Concentration/Percentage	Hazard Symbols
None	None	None
Main Components Name	Concentration (%)	CAS No.
Poly (Ethylene-co-Vinyl Acetate)	60%	24937-78-8
2,4,6-Trimethyl-1,3-Benzene dimethanol	40%	10074-13-2

三. Hazard Identification

	CMR_cat.1A,1B	Danger
---	---------------	--------

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八. Exposure Control/Personal Protection

Engineering Control: Keep good ventilation	
Control Factor: None	Biotic: None
Personal Protection Equipment:	
Hand Protection: Wear gloves.	
Eye Protection: Wear goggles.	
Skin & Body Protection: Wear protective clothing.	
Hygiene Procedures: Observe the common precautionary measures. Contaminated clothes must be changed immediately. Wash hands after work is completed.	

九. Physical and Chemical Properties/Characteristics

Appearance: Solid	Form: Particle
Color: Black · Red · Brown · Blue · Green · Yellow · Violet	odor: None
pH value: None	Boiling Point/Boiling Range: None
Decomposition Temperature: None	Flash Point: None
Spontaneous Temperature: None	Test Method: None
Vapor Pressure: None	Open Cup: None
Specific Gravity: None	Close Cup: None
	Exposure Limits: None
	Vapor Density: None
	Solubility in Water: Insoluble

十. Stability and Reactivity

Stability: Good.
(Under normal temperature and pressure environment)
Special Conditions of Hazardous Reaction: Decompose at high temperatures.
Conditions to Avoid: Storage temperature lower than 40°C.
Incompatibility: Strong alkalis and strong acids.
Hazardous Decomposition Products: Formation of combustible and noxious fumes during thermal decomposition.

十一. Toxicological Information

Acute Toxicity: None	Effects: None
Incompatibility:	Chronic: None
Contact with skin may cause hypersensitivity.	
Exceptional Effect: None	

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	CMR_cat.2	Warning
Major Hazard Effect	None	
Hazard Warnings for Health	Products on the human body has minor damage, heating may release trace amounts of volatile materials barbed pay.	
Hazard Warnings for Environment	None	
Hazard Category	None	
Physical and Chemical Dangerous:	It will release high-density smoke in the burning course of products slowly.	
Major State	None	

四. Fire Aid Measures:

Emergency and First Aid Procedures
Inhalation: Under normal use will not inhale
Skin Contact: Wash thoroughly with plenty of soapy water.
Ingestion: Avoid vomiting and seek medical advice.
Eyes Contact: Washing 15min, if necessary, medical treatment.
First-Aid personal protection: Wear respiratory protection equipment and use of protective gloves
Prompt to doctor: Symptomatic treatment
Kind of resin: 無 None

五. Fire Fighting Measure

Suitable Extinguishing Media: Water, foam and powder extinguisher.
Suitable Exposure Hazards: Formation of carbon monoxide, nitrogen oxides vapors.
Special Extinguishing Procedure: Cool the containers down with plenty of water.
Special Protection Equipment: Wear respiratory protection equipment.

六. Accidental Release Measures

Personal Protection: Use of protective gloves
Methods for Cleaning Up:
Collection and proper disposal of spills properly.

七. Handling and Storage

Handling:
No eating · drinking or smoking when handling; Avoid inhalation of hot rubber and the gas mixing and curing time; Wearing gloves and washing hands after operation.
Storage:
Stored in clear · dry and dark environment to maintain products quality; Use black coverings to avoid light or sunlight irradiation; avoid outdoor storage; storage temperature is below room temperature.

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十二. Ecological Information

Ecological Information Possibility of Environmental Impact / Move: --

十三. Disposal Information

Waste disposal method:
Products: In accordance with the regulations of special waste, the waste must be preprocessed and then sent to the special qualified waste incineration.
The polluted packaging: The packing which don't be clean completely should be as waste products.

十四. Transport Information

International Transport Regulation: None
The United Nations Number (UN-No): None
Internal Transport regulation: None
Special Transport Way and Note: Keep away from acids and alkalis, Put between 0°C and 40°C.

十五. Regulation Information

Apply Regulation: Regulation on the safety management of dangerous chemical goods.
--

十六. Other Information

Reference:	
The detailed rules for the implementation of the regulations on safety management of dangerous chemical goods: The safety regulation of chemical goods in workplace.	
Name: Suzhou ChengFeng Plastic CO., LTD.	
Make Unit	Address: Weilai Road, Beiqiao Town, Xiangcheng District, Suzhou City, China.
	Phone: 86-512-65998671
Make By	C.C.Su
Make Date	2014-11-26

White Carbon

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/ UNDERTAKING

Product information
Trade name: White Carbon ZQ-356
Company: Zhuzhou Xinglong New Material Co., Ltd.
Xinglong Industrial Area, Longtaoqiu, Zhuzhou
Hunan, China
Telephone: 86-731-28704768
Telefax: 86-731-28700761
Emergency Telephone Number: 86-731-28704768

2. COMPOSITION/INFORMATION ON INGREDIENTS

Information on ingredients / Hazardous components
Silicon Oxide(Dioxide)(SiO₂)
CAS-No. 7631-86-9 Ec-No. 231-545-4 100%

3. HAZARD IDENTIFICATION

On the basis of information available to us, this product is not a hazardous substance in the sense of the law on chemicals or the regulations on hazardous substances in the version which is currently valid.

4. FIRST AID MEASURES

Inhalation
In case product dust is released:
Possible discomfort: cough, sneezing
Take affected persons out into the fresh air.

Skin Contact
No hazards which require special first aid measures.

Eye Contact
Possible discomfort is due to foreign substance effect.
Rinse thoroughly with plenty of water keeping eyelid open.
In case of persistent discomfort
Consult an ophthalmologist.

Ingestion
Rinse mouth.

Eye protection
Safety glasses with side-shields
If dust occurs: basket-shaped glasses

Skin and body protection
No special protective equipment required.
Preventive skin protection.

Hygiene measures
No eating, drinking, smoking, or snuffing tobacco at work.
Wash contaminated clothing before re-use.

Protective measures
Handle in accordance with good industrial hygiene and safety practice.
If there is the possibility of skin/eye contact the indicated hand/eye/body protection should be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: powder
Colour: white
Odour: odourless
Safety data
PH: ca. 6.66(50g/l (20°C)
(suspension)
Melting point/range: ca. 1700 °C
Boiling point/range: n.a.
Flash point: n.a.
Flammability: n.a.
Ignition temperature: n.a.
Autoignition temperature: n.a.
Lower explosion limit: n.a.
Upper explosion limit: n.a.
Vapour pressure: n.a.
Density: ca.2g/cm³(20 °C)
Tapped density: ca.300g/l
Method: DIN ISO
Water solubility: insoluble
Partition coefficient (n-octanol/water): n.a.
Viscosity, dynamic: n.a.

10. STABILITY AND REACTIVITY

Hazardous decomposition: None known.

Notes to physician
No hazards which require special first aid measures.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
All extinguishing substances suitable
Specific hazards during fire fighting
None known

Further information
Water used to extinguish fire should not enter drainage systems, soil or stretches of water.
Ensure there are sufficient retaining facilities for water used to extinguish fire.
Retention of fire-extinguishing water in China: see Fire-Extinguishing Water Retention Directive.
Fire residues and contaminated fire-extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Wear personal protective equipment.
Methods for cleaning up
Take up mechanically and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Handling
Safe handling advice
If necessary: Local ventilation
Advice on protection against fire and explosion
Take precautionary measures against static discharges.
Storage
Requirements for storage areas and containers
Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters
Personal protective equipment
Respiratory protection
No special protective equipment required.
If dust occurs: Dust mask with P2 particle filter
If the limits at the workplace are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used.

Hand protection
Wear protective gloves made of the following materials: material, rubber, leather.

products
Thermal decomposition: > 2000 °C

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
LD50 rat: > 10000mg/kg
Method: Literature
Acute inhalation toxicity
LC50 rat: 1.139mg/4h
Method: Literature
(maximum concentration attainable in experiments)
No deaths occurred.
Acute dermal toxicity
LD50 rabbit > 5000mg/kg
Method: Literature
Skin irritation
rabbit/literature
Not irritating
Eye irritation
rabbit/literature
Not irritating
Repeated dose toxicity
Oral
No negative effects
Inhalative
No reversible changes and no indication of silicosis
Mutagenicity assessment
In vitro and in vivo experiments, no evidence of mutagenic effects, literature.
Carcinogenicity
No negative effects
Toxicity to reproduction
No negative effects
Human experience
Silicosis or other product specific illnesses of the respiratory tract were not observed in association with the product.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)
Behaviour in environmental compartments
Ecotoxicity effects
Toxicity to fish
LC50 (Brachydanio rerio): > 10000mg/l /96h
Method: OECD 203
Toxicity to daphnia
EC50 Daphnia magna: > 10000mg/l /24h
Method: OECD 202

13. DISPOSAL CONSIDERATIONS

product
Can be disposed of with domestic refuse in accordance with the necessary technical regulations following consultation with waste disposal expert(s) and the responsible authorities.

Contaminated packaging
Bring decontaminated packaging to local recycling centre.

Other countries: observe the national regulations.
Waste Key Number
No waste code number in accordance with the Chinese Waste Catalogue can be specified
For this product since it can only be categorised on the basis of its use by the consumer.
The waste code number is to be put on by arrangement with the disposal contractor, manufacturer or authority.

14 TRANSPORT INFORMATION

Transport/further information
Not classified as dangerous in the meaning of transport regulations.

15 REGULATORY INFORMATION

Labelling according to EEC Directive
Other data On the basis of information available to us, this product is not a hazardous substance in the sense of the law on chemicals or the regulations on hazardous substances in the version which is currently valid.

National Legislation

16 OTHER INFORMATION

Further information
Changes since the last version will be highlighted in the margin. This version replaces all previous versions.
The data presented here correspond to the present state of our knowledge and experience and are intended to describe our product with respect to possible safety demands. We imply with this however no guarantee of properties or description of qualities.

物质安全资料表

一、物质与厂商资料

物品名称: 白炭黑(White Carbon)、沉淀水合二氧化硅(PRECIPI-TATED SILICA ZQ-356GJ)
物品编号:
制造商或供应商名称、地址及电话: 株洲兴隆新材料股份有限公司 湖南省株洲市龙头铺镇工业小区 0731-28704768
紧急联络电话: 0731-28704768 传真电话: 0731-28700761, 28701277

二、成分辨识资料

纯物质:
中英文名称: 白炭黑(White Carbon)沉淀水合二氧化硅(PRECIPI-TATED SILICA ZQ-356GJ)
同义名称:
化学登记号码 (CAS No.): 112926-00-8 resp. 7631-86-9(gold)
物质成分 (成分百分比): 二氧化硅 89%; 水份 5%; 结晶水 5%; 可溶性盐(Na ₂ SO ₄)1%

混合物:

化学物质:
危害物质成分之中英文名称 浓度或浓度范围 (成分百分比) 危害物质及图式

三、危害辨识资料

健康危害效应: 非危害物质
重要环境影响:
物理性及化学性危害:
特殊危害:
主要症状:
物品危害分类: 非危害物质

四、急救措施

不同暴露途径之急救方法:
• 吸入: 移至新鲜空气处。
• 皮肤接触: 以水冲洗。
• 眼睛接触: 张开眼睛, 以大量的水温和冲洗。
• 食入: 耐心的以水从嘴冲洗。
最严重症状及危害效应: 吸入可能造成咳嗽或打喷嚏之不适感, 眼睛接触可能系因异物效应之不适感。持续不适, 应请医师诊断。
对急救人员之防护:
对医师之提示:
五、灭火措施
适用灭火剂: 所有灭火剂皆适用。
灭火时可能遭遇之特殊危害:
特殊灭火程序:

消防人员之特殊防护设备:

六、泄露处理方法

个人应注意事项: 如第八项个人防护设备
环境注意事项:
清理方法: 清扫收集于适当容器。

七、安全处置与保存方法

处置: 1. 通风的作业环境。 2. 预防静电之发生。

八、暴露预防措施

工程控制: 如第七项说明
控制参数:
USA/ACGIH (1999) TWA 10mg/m ³ (precipitated silica-amorph)
England/EH40(1999)OES 6mg/m ³ (total inh. Dust)
OES 2.44m ³ (respirable dust)
Ireland(1997) OEL 6mg/m ³ (total inh. Dust)
OEL 3.6mg/m ³ (respirable dust)

生物指标:

个人防护设备:
• 呼吸防护: 防尘口罩 (P2 particulate filter)
• 手部防护: 布、橡胶、或皮制品手套。
• 眼睛防护: 有侧面防护之安全眼睛。
• 皮肤及身体防护: 1. 预防接触皮肤之防护。 2. 清洗使用污染过之衣物。

卫生措施: 不在工作场所吃, 喝食物或抽烟。

九、物理及化学性质

物质状态: 颗粒	形状:
颜色: 白色	气味: 无味
pH 值: 6.3(suspension)	沸点: /沸点范围:
分解温度: >2000°C	闪火点: °C
	测试方法: 开杯 闭杯
自然温度:	爆炸界限:
蒸气压:	蒸气密度:
密度: 2g/cm ³	溶解度: 不溶于水

十、安定性及反应性

安定性:
特殊状况下可能之危害反应: 未发现
应避免之状况: 分解温度: > 2000°C
应避免之物质:
危害分解物:

十一、毒性资料

急性: 食入毒性 鼠 LD50 > 10000mg/kg, 与吸入毒性 鼠 LC50 > 0.139mg/14h
皮肤接触 兔 LD50 > 5000mg/kg
局部效应:
致敏性: 文献上对兔子试验无皮肤过敏现象, 无刺激眼睛现象。
慢性或长期毒性: 慢性, 口服, 致毒与生殖毒性试验无有害的效应。
慢性吸入毒性试验无可逆之变化与没有溶解现象发现。

特殊效应:

十二、生态资料

可能之环境影响/环境流布:
鱼毒性: LC50 (96h) ≥ 10000mg/l, Brachydanio rerio, OECD 203
急水蚤毒性: EC50(24h) ≥ 10000mg/l, Daphnia magna, OECD 202

十三、废弃处置方法

废弃处置方法: 依据当地政府废弃物处理规定, 咨询废弃物专家或环保局。

十四、运送资料

国际运送规定: 非危害物质。

联合国编号:

国内运送规定:

特殊运送方法及注意事项:

十五、法规资料

适用法规: 在现行危害品法规中, 本产品非属危害品物质。

十六、其他资料

参考文献	国家标准
制表单位	名称: 品保中心
	地址/电话: 湖南省株洲市龙头铺镇工业小区 0731-28700825
制表人	
制表日期	2017-03-19

Calcium Carbonate

HUA TUNG CHEMICAL INDUSTRIAL CO., LTD.

74 Yung Chun Rd. Su-Ao, I-Lan, 27046, Taiwan. Tel : +886-3-9962910 Fax : +886-3-9964659

SAFETY DATA SHEET

Information of article & manufacture or supplier

Article : Calcium Carbonate
Type : R-308
Usage : For industrial use ; not for human or
Manufacture : Hua Tung Chemical Industrial Co., Ltd. 74 Yung Chun Rd. Su-Ao, I-Lan, 27046, Taiwan Tel : +886-3-9962910 Fax : +886-3-9964659
Name and Phone No for Emergency : Vincent Wu / +886-3-9962910

Information of composition

Name of article : Calcium Carbonate
Synonym : Marble or Limestone powder
CAS No : 471-34-1
Chemical Formula : CaCO ₃
Composition by weight : Limestone : 100.0 % (CAS No : 471-34-1)

Hazardous composition and effect

Hazardous composition		
Name	Name	Name
N.A.	N.A.	N.A.
Potential Health effects :		
Acute effect : slightly hazardous in case of skin contact (irritant), of eye contact, of ingestion, of inhalation		
Chronic effect : CARCINOGENIC EFFECTS : A5 (Not classifiable for human or animal) by ACGIH ; 3 (Not classifiable for human) by IARC		
MUTAGENIC EFFECTS : Not available		
TERATOGENIC EFFECTS Not : available		
DEVELOPMENTAL TOXICITY : Not available		

Handling and Storage

Precaution	No specific safety phrase has been found applicable for this product
Storage	Keep container tightly closed in a well-ventilated area. Do not stack over three layer pallets.

Prevention of exposure

Preventive kit or equipment	Eye : protective eyeglasses not required but recommended Breathe : use approved dust mask Glove : usual glove Other : slurry is slippery/ care should be taken while passing through
Ventilation	Ventilation system are advised to be operated through handling
Precaution for processing and storage	Avoid leaking and generating dust exposure
Personal hygiene	Clean contact part after processing

Physical and Chemical Property

Appearance	White powder
Odor	Odorless
PH	8.0-9.5
Melting pt : above 1000°C	Vapor pressure : N.A.
Vapor density : N.A.	Spec Gravity (water=1) : 2.6-2.8
Vaporization rate : N.A.	Solubility (in water) : insoluble

Characteristics of reaction and Stability

Stability	Stable	Precaution : none
	unstable	Hazardous decomposition : none
Hazardous polymerization	Possible	Precaution : none
	Impossible	
Incompatibility : none	Precaution : none	

Toxicity

Acute toxicity	No data has been found
Local effect	Not available
allergility	skin irritation and reddish if contacted with powder
Chronic toxicity	May cause lung tumor check for long time inhalation
other effect	Not available

First aid measure

Eye contact	Check for and remove any contact lenses · In case of contact , immediately flush eyes with plenty of water for at least 15 minutes · Get medical attention if irritation occurs ·
Skin contact	Wash with soap and water · · Get medical check if irritation develops ·
Inhalation	If inhaled, remove to fresh air · If not breathing, give artificial respiration · If breathing is difficult give oxygen · Get medical attention ·
Ingestion	DO NOT induce vomiting unless directed to do so by medical personnel · Never give anything by mouth to an unconscious person · If large quantities of this material are swallowed, call a physician immediately · Loosen tight clothing such as a collar, tie, belt or waistband ·

Flame and explosion data

Flash Point : non-flammable	Explosion level	LEL : N.A.
Test method : N.A.		UEL : N.A.
Flame : Does not burn or support combustion	Extinguisher : not applicable	Special extinguishing process : unnecessary

Leakage

Small Spill	Use appropriate tools to put the spilled solid in convenient waste disposal container · Finish cleaning by spreading water on the contaminated surface and dispose of according to local regional authority requirement ·
Large Spill	Use shovel to put the material into a convenient waste disposal container · Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system · Be careful that the product is not present at a concentration level above TLV · Check TLV with local authorities

Environmental effect

Possible environmental effect	
air	Floated minute powder particle could cause air polluted and unclear
earth	Transportation of powder with air or water cause final deposition on surface of earth or environment
water	Powder particle flow with water would cause water whitened and turbid

Dumping

Comply with domestic related environment prevention code and relevant regulation
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Shipment information

UN No	N.A.	Classification of hazard	N.A.	Hazard label	N.A.
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Regulation and law

Applied regulation and code :
1. Air pollution prevention code
2. Waste handling and processing code
3. Other related regulation and code

Information Of MSDS

Unit for MSDS	Name : Hua Tung Chemical Ind Co., Ltd Address : 74 Yung Chun Rd Su-Ao, I-Lan, Taiwan Tel : 886-3-9962910
MSDS maker	Title : Manager Vincent Wu
Revised Date	Aug / 01 / 2021



Titanium Dioxide



SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 and 453/2010, and U.S. OSHA HCS 2012

SECTION 01. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

Product Name: Titanium Dioxide
Product Code: R-666, R-K95
Chemical Formula: TiO₂
REACH No.: 17-2119961993-22-0000
CAS No.: 13463-67-7
EC No.: 236-675-5
Use of the substance/mixture: Pigments
Company: GUANGDONG HUIYUN TITANIUM INDUSTRY CORPORATION LIMITED
LiuDu Town, Yun'an County, Yunfu City, Guangdong, China
Tel: +86 766 8495123
Fax: +86 766 8613336
Web: www.gdhtian.com
Emergency phone No.: +86 766 8495123 (only available in working days)

SECTION 02. HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classification: Not a hazardous substance or mixture according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 (CLP).
Not a hazardous substance or mixture according to Directives 67/548/EEC or 1999/45/EC.
Label element
Labeling: The product does not need to be labeled according to

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Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Firefighting instructions: No special protective equipment required.
The product itself does not burn.

SECTION 06. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid breathing dust.
Environmental precautions: Do not flush into surface water or sanitary sewer system.
Methods for cleaning up: Pick up and arrange disposal without creating dust. After cleaning, flush away traces with water.
Reference to other sections: See Section 8 for information on personal protection equipment.

SECTION 07. HANDLING AND STORAGE

Handling: Avoid breathing dust.
This is a fully oxidized mineral product. As such it cannot support combustion or participate in a dust explosion.
Wash hands, face, and neck when exiting restricted areas.
Storage: Keep container tightly sealed and stored in a dry and well-ventilated area. The stacking height must not exceed 2 pallets.
Specific end uses: Take precautions against the discharge of static electricity during powder handling operations.

SECTION 08. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Components with workplace control parameters:
CAS No. 13463-67-7 Titanium dioxide
WEL long-term exposure limit: TWA(Inhalable) 10mg/m³
WEL long-term exposure limit: TWA(Respirable) 4mg/m³
PEL (OSHA): TWA (total dust) 15mg/m³

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Regulation (EC) No. 1272/2008 (CLP).
The product does not need to be labeled according to GHS.

Other hazards:
Other hazards: Dust contact with skin can cause mechanical irritation.
Dust contact with eyes can lead to mechanical irritation.
May cause nose, throat and lung irritation.

SECTION 03. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Substances
CAS No. Description: 13463-67-7 titanium dioxide
EC number: 236-675-5
Additional information: Standard EN ISO 591-1

SECTION 04. FIRST AID MEASURES

General measures: No special measures required.
Inhalation: Supply fresh air; consult doctor in case of complaints.
Skin contact: Immediately wash with water and soap and rinse thoroughly.
Eyes contact: Rinse opened eye for several minutes under running water.
Ingestion: Rinse mouth and then drink plenty of water, induce vomiting.
Seek medical advice and show this container or label.
Most important symptoms and effects, both acute and delayed:
No further relevant information available.
Indication of any immediate medical attention and special treatment needed:
No further relevant information available.

SECTION 05. FIRE-FIGHTING MEASURES

Flammable properties: Does not flash.
Lower flammable limits: Not applicable.
Upper flammable limits: Not applicable.
Thermal decomposition: Not applicable.
Fire and explosion hazard: Not a fire or explosion hazard.

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TLV (ACGIH): TWA 10mg/m³

Derived No Effect Level (DNEL):

Type of application (use): Workers
Exposure routes: Inhalation
Health Effect: Chronic effects
Value: 10mg/m³

Predicted No Effect Concentration:

Fresh water: 0.127 mg/l
Marine water: ≥1mg/l
Water (intermittent release): 0.61mg/l
Fresh water sediment: ≥1000mg/kg
Marine sediment: ≥100mg/kg
Soil: ≥100mg/kg
Sewage treatment plants: ≥100mg/kg

Exposure controls

Engineering measures: Use sufficient ventilation to keep employee exposure below recommended limits.
Eye protection: Safety glasses with side-shields
Hand protection: Gloves
Hygiene measures: Wash hands before breaks and at the end of workday.
Respiratory protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

SECTION 09. PHYSICAL AND CHEMICAL PROPERTIES

Form: Powder
Colour: White
Odour: Odourless
pH: 6.0-8.5
Melting point: >1800 °C
Boiling point: Not applicable
Flash point: Does not flash

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Flammability (solid, gas): The product is not flammable
 Ignition temperature: Not applicable
 Danger of explosion: The product is not explosive
 Relative density: 4.1
 Vapour density: Not applicable
 Evaporation rate: Not applicable
 Water solubility: Insoluble
 Segregation coefficient: Not applicable
 other information: No further relevant information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity: The substance is stable under normal use conditions.
 Chemical stability: Stable
 Possibility of hazardous reactions: None.
 Conditions to avoid: Not applicable.
 Incompatible materials: None.
 Hazardous decomposition products: Not applicable.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity: Titanium dioxide
 LD50/oral/rat: >5,000mg/kg
 LD50/dermal/rabbit: >5,000mg/kg
 LC50/inhalation/rat: >6.8 mg/l
 Primary irritant effect: Titanium dioxide
 Skin /rabbit: No irritant effect.
 Eyes /rabbit: No irritating effect
 Sensitization/mouse: No sensitizing effects known.
 Repeated dose toxicity: Titanium dioxide
 Oral rat: No toxicologically significant effects were found.
 Inhalation rat: No toxicologically significant effects were found.
 Mutagenicity assessment: Titanium dioxide
 Tests on bacterial or mammalian cell cultures or animal did not

show mutagenic effects.
 Carcinogenicity assessment: Titanium dioxide
 Not classifiable as a human carcinogen.
 Toxicity to reproduction assessment: Titanium dioxide
 No data available
 Human experience:
 Inhalation: May cause nose, throat, and lung irritation.
 Skin contact: Skin contact can cause mechanical irritation or drying of the skin.
 Eye contact: Dust contact with the eyes can lead to mechanical irritation.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
 Toxicity to fish: Titanium dioxide
 LC50 / 96 h: > 1 000 mg/l
 Toxicity to aquatic plants: Titanium dioxide
 EC50 / 72 h: 61 mg/l
 Toxicity to aquatic invertebrates: Titanium dioxide
 EC50 / 48 h: > 1 000 mg/l
Persistence and degradability
 Biodegradability: Pigments are practically not biodegradable.
Bioaccumulative potential
 Bioaccumulation: Does not bioaccumulate.
Mobility in soil
 No data available
Results of PBT and vPvB assessment
 PBT: Not applicable
 vPvB: Not applicable
Other adverse effects
 Additional information: Not applicable

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
 Product: Dispose of as special waste in compliance with local and national regulations.
 Contaminated packaging: Packaging can be reused or recycled after cleaning.
 If recycling is not practicable, dispose of in compliance with local regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number
 DOT, ADR, IMDG, IATA: Not applicable
UN proper shipping name
 DOT, ADR, IMDG, IATA: Not applicable
Transport hazard class
 DOT, ADR, IMDG, IATA: Not applicable
Packing group
 DOT, ADR, IMDG, IATA: Not applicable
Environmental hazards
 No environmentally hazardous substance.
Special precautions for user
 Not applicable.
Further information
 Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
 Label Elements: Not to be labeled as hazardous according to GHS.
 Hazard pictogram: Not applicable.
 Signal word: Not applicable.

Hazard statements: Not applicable.
 EC label information: The product does not need to be labeled in accordance with EC directives or respective national laws.
 SARA 313 information: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title 3005. **3005**
 Water hazard class: Not hazardous for water.
Chemical Safety Assessment
 Substances of very high concern (SVHC) according to REACH, Article 57:
 The product is not listed as SVHC, it does not contain any substances of very high concern.
 Chemical Safety Assessment: A Chemical Safety Assessment has been carried out.
Chemical inventory status:

Ingredient	EC	USA	Australia	Canada	Japan	Korea	Philippines	China
	RENECS	TSCA	AICS	DSL	ENCS	KECI	PICCS	IECSC
Registration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

SECTION 16. OTHER INFORMATION

U.S. NPCA Hazardous Materials Identification System (HMIS Ratings):
 Health: 1-Slight
 Flammability: 0-None
 Reactivity: 0-None
 Personal protection: E-Safety glasses, gloves, dust respirator.
 The information contained herein is based on the present state of our knowledge. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. Recipients of our product must take responsibility for observing existing laws and regulations.

Rubber Grade Stearic Acid



PT. MUSIM MAS
Fatty Acid & Glycerine Division

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

Product Identification

Product Name : Rubber Grade Stearic Acid
Trade Name : MASCID 1810
Other Identifier : Hexadecanoic Acid + Octadecanoic Acid
Recommended Use : chemical in intermediate for metallic soaps & greases, household soap products, Synthetic rubber vulcanization accelerators, alkylated & epoxy resins for surface coatings

Company Identification

Manufacturer Name : P.T. Musim Mas
Address : Jl. Oleo, Kawasan Industri Medan II, Candi - Pematang Sialang, Deli Serdang Medan 20371 - Indonesia
Telephone Number : 62-61-6871123
Fax Number : 62-61-68711627
Email Address : 6871163
Emergency Telephone Number : oleo@musimmas.com
EU, ACP and other countries - North America/ Canada : +1-800-424-8300 (Chambres)

2. HAZARD IDENTIFICATION

GHS Classification
Physical Hazard : Not classified as hazardous substance
Health Hazard : Not classified as hazardous substance
Environmental Hazard : Not classified as hazardous substance

GHS Label Element
Hazard Symbol : None
Signal Word : None
Hazard Statement : None

Precautionary Statement : None
Other Hazard : No information available



PT. MUSIM MAS
Fatty Acid & Glycerine Division

SAFETY DATA SHEET

3. COMPOSITION INFORMATION ON INGREDIENTS

Mixture

Chemical Name	Content	C.S.I. No
Hexadecanoic Acid	40%	606-12-7
Hexadecanoic Acid	60%	67-10-3
Octadecanoic Acid	30%	67-11-4

Ingredient or impurities that contribute to hazard : This product does not have impurities that contribute to the hazard classification

4. FIRST AID MEASURES

Eye Contact : Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Check for and remove any contact lenses. If you feel unwell and in case of irritation seek medical attention.

Skin Contact : Wash skin with soap and water upon contact. Remove contaminated clothing. If irritation develops, get medical attention. Wash clothing before reuse.

Ingestion : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink.

Inhalation : Remove patient from exposure. Obtain medical attention if ill effects occur.

Most important symptoms/effects, acute and delayed : No information available

Indication of immediate medical attention and special treatment needed : No information available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing Media : Dry powder, carbon dioxide or foam.

Unsuitable extinguishing Media : Water jet.

Specific hazards arising from the substance or mixture : Combustible, keep away from open flame, no smoking. Liquid product may have temperature exceeding 90 °C

Special protective equipment for firefighters : Use self-contained breathing equipment if in confined place.

Special protective action for firefighters : Keep away from source of ignition and use appropriate extinguishing media. Fight fire from upwind position if possible.

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PT. MUSIM MAS
Fatty Acid & Glycerine Division

SAFETY DATA SHEET

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Avoid contact with skin and eyes. Use gloves, face shield.

Environmental precautions : Do not allow to flow in drainage system.

Methods and materials for containment and cleaning up : Collect leakage in sealable containers, soak up with sand or other inert absorbent and remove to safe place. Wash site with sodium bicarbonate solution or soda ash. Can also allow spillage to solidify, then shovel into containers. Clean up area immediately. Dispose off in accordance with local, state and federal regulation.

7. HANDLING AND STORAGE

Precautions for safe handling : Avoid open flames. Use gloves and wear goggles when handling. When using do not eat, drink or smoke. Avoid contact with skin and eyes.

Conditions for safe storage, including any incompatibilities : Keep only in the original container in a cool, well ventilated place. Do not store together with: Oxidizing agents, Alkalis. Protect against: heating, UV-solatilization/sunlight.

Keep in a cool and dry place, avoid extreme heat and cold. Store in clean, dry preferably stainless steel vessels. In bulk, store at about 10°C above melting point or ambient. Temperature higher than necessary degrades quality at rates dependent on time and temperature of exposure. Exposure to ultraviolet light and sunlight must be minimized to prevent quality loss.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters: Appropriate

Engineering controls : Facilities storing or utilizing this material should be equipped with an eyewash facilities and safety shower

Individual protection measures such as personal protective equipment

Eye/Face Protection : Tightly sealed safety glasses.
Skin Protection : Hand protection: Recommended protective gloves are Butyl rubber, NBR (Nitrile rubber), PVC (Polyvinyl chloride).

Respiratory Protection : If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn. - Not applicable

Thermal Hazards : None
Environmental exposure controls : Do not empty into drains or the aquatic environment



PT. MUSIM MAS
Fatty Acid & Glycerine Division

SAFETY DATA SHEET

9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Information
Appearance : Solid
Physical State : White or faintly yellowish somewhat crystalline solid
Colour : Faintly yellow
Odour : No information available
Odour threshold : No information available
pH : No information available
Titre/Titre : 53.63°C
Initial boiling point and boiling range/Flash point : 220-245°C at 100 mmHg
180-202°C (ASTM D92 Cleveland open cup)
Evaporation rate : No information available
Flammability (solid, gas) : Non flammable solid (EU method A, 10)
Upper/lower flammability or explosive limits : No information available
Vapour pressure : 5.06E-5 Pa at 25°C
Vapour density : No information available
Relative density : 0.8815 g/cm³ at 15°C
Solubility : Solubility in water <0.05 mg/L at 20°C (Read across from Palmitic Acid, cas number 67-10-3)

Partition coefficient (n-octanol/water) : log K_{ow} 7.05-8.23
Auto-ignition temperature : ca 350 °C
Decomposition temperature : Not available
Viscosity : 100mPa.s at 70°C (ASTM D445)
Explosive properties : Not applicable
Oxidizing properties : Not an oxidising substance
Other information : No information available

10. STABILITY AND REACTIVITY

Reactivity : The substance is stable.

Chemical stability : Stable under normal operating conditions.

Possibility of hazardous reactions : No information available.

Conditions to avoid : Keep away from ignition sources and strong acids and bases. If product is a the powder that may cause dust explosions. Note the risk of self-ignition in contact with air if the substance has been soaked in rags, cotton wool isolation materials or similar heat insulating materials.

Incompatible materials : Avoid contact with strong oxidizing agents and bases, copper alloys and reducing agent.

Hazardous decomposition products : Stable under normal conditions. Does not decompose up to 204°C. Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide.

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PT. MUSIM MAS
Fatty Acid & Glycerine
Division

SAFETY DATA SHEET

11. TOXICOLOGICAL INFORMATION

Acute toxicity	: Oral	LD ₅₀ > 8000 mg/kg bw (RA from 67-10-3)
	: Inhalation	LC ₅₀ (4h) : > 0.1621 mg/L air (RA from 124-07-2)
	: Dermal	LD ₅₀ > 2000 mg/kg bw (RA from 67-11-4)
Skin corrosion/irritation	:	Not irritating
Eye damage/irritation	: Rabbit	Not irritating
Respiratory or skin sensitization	: Rabbit	Not irritating
Mutagenicity	: Negative	
Carcinogenicity	: Negative	
Reproductive toxicity	: No information available	
STOT-single exposure	: No information available	
STOT-repeated exposure	: No information available	
Aspiration hazard	: No information available	

12. ECOLOGICAL INFORMATION

Ecotoxicity	: LC50 (48h) (species : Leuciscus idus) : > 1000 mg/L
	: EC50 (48h) (species : Daphnia magna) : > 4.8 mg/L (RA 67-10-3)
Persistence and Degradability	: Readily biodegradable
Bioaccumulative potential	: No potential for bioaccumulation
Mobility in soil	: No information available
Result of the PBT and vPvB assessment	: Not a PBT or vPvB substance
Other adverse effects	: No information available

13. DISPOSAL CONSIDERATIONS

Disposal methods	: Dispose of content/containers to an approved waste disposal plant. Do not dispose via sinks, drains or into the immediate environment. Dispose only in accordance with local, state and federal regulations.
------------------	--

14. TRANSPORT INFORMATION

Land Transport (ADR/RID)	: Not classified
Sea Transport (IMDG Code)	: Not classified
Air Transport (IATA)	: Not classified
Inland waterway Transport (ADN)	: Not classified
Transport in Bulk (Items II of MARPOL 73/78 and the IBC Code)	: Fatty Acids, (016)
UN Glob. Name	: Fatty Acids, (016)
Shp. Type	: 2
Pollution category	: Y

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PT. MUSIM MAS
Fatty Acid & Glycerine
Division

SAFETY DATA SHEET

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture :

Inventories List	: Listed
AICS (Australia) DSL	: Listed
(Canada) NDSL	: No
(Canada) IECSC	: No
(China) EINECS (EU)	: Listed
ECL (Korea)	: Yes (EC No. : 286-928-6)
NZIO (New Zealand)	: Yes (KE-1428)
PIGOS (Philippines)	: Yes (HSNO Approval Code HS R003039) : Listed
TSCA (USA)	: Listed

Chemical Safety assessment : No information available.

16. OTHER INFORMATION

Document No.	: SDS-FQG-16
Revision No.	: 3.00
Issue date	: 10-Mar-12

Disclaimer

The release of this data sheet to you is subject to the disclaimers herein. The information contained is based on the present state of our knowledge and this data sheet is for general information purposes only. We represent, warrant, or guarantee in any way the accuracy, reliability or information in the Data Sheet. We disclaim all liability for any loss, injury or damage which may result from any use of the information provided by this data sheet.

Format date : 27 Nov 2012

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Azodicarbonamide Foaming Agent

YU SHINE CHEMICAL CO., LTD

NO.349,SEC.5,SHAN JHIAO RD.,TEN ZHONG TOWNSHIP,ZHANG HUA COUNTY 520,TAIWAN
TEL:+886-4-2406 5280 FAX:+886-4-2406 3280

Issued date: May 1, 2015
Revision date: Jun 1, 2022

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the substance or preparation

Azodicarbonamide foaming agent

1.2. Use of the substance/preparation

Foaming agents for plastics and rubber

1.3. Company/undertaking identification

YU SHINE CHEMICAL CO., LTD
NO.349,SEC.5,SHAN JHIAO RD.,TEN ZHONG TOWNSHIP,ZHANG HUA COUNTY 520,TAIWAN
TEL:+886-4-2406 5280 FAX:+886-4-2406 3280

1.4. Emergency telephone

Advisory office in case of poisoning

Tel: +886-4-2406-5280

Telephone number of the company in case of emergencies

Tel: +886-4-2406-3280

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Physical

Health Respiratory sensitization, Category 1

Environmental

2.2 Label elements

2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Product identifier

Substances

Azodicarbonamide

Mixtures

Hazard components for labelling

Azodicarbonamide

Hazard pictograms



GHS08

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Following inhalation

If inhaled in, move person into fresh air. If not breathing give artificial respiration.

Following skin contact

Wash off with soap and plenty of water.

Following eye contact

Flush eyes with water as a precaution.

Following ingestion

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Special resources necessary for first aid

n.c.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Decompose around 200 deg.°C.

5.3 Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Additional information

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

7.2 Storage

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

7.3 Specific use

n.c.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure limit values

8.2 Exposure controls

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95

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Signal word

Danger

Hazard Statements

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P285 In case of inadequate ventilation wear respiratory protection.

Correspondence

P304+341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Storage

N.D

Discard

P501 Dispose of contents/container to... (in accordance with local/regional/national/international regulations)

HMS Classification

Health hazard 0

Flammability 3

Physical hazards 0

NFPA Rating

Health hazard 0

Fire 3

Reactivity Hazard 2

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances/Mixtures

Substance	Azodicarbonamide
Purity	98 – 100 %
Synonyms	Diazendicarbonyl, Azobiscarbonamide, Azobiscarbonyl
CAS No	123-77-3
EINECS No	204-650-8
IUPAC name	Diazene-1,2-dicarbonyl
Formula	C2H4N4O2
Molecular Weight	116.08 g/mol
Classification according Regulation (EC) No 1272/2008 [CLP]	
H334	

3.2 Additional information

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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(US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Important health, safety and environmental

information Appearance

Physical state	Powder
Colour	Orange yellow
Odour	Not available
Odour threshold	Not available
Safety relevant basic data	
pH(20°C)	6.5 – 7.0
Melting point/range (°C)	Decomposition at > 200°C
Initial boiling point(°C)	Not available
Decomposition temperature(°C)	201 – 205°C
Flash point(°C)	Not available
Flammability	Non flammable
Explosive properties	Non explosive
Self-ignition temperature(°C)	No evidence of self-ignition below 400°C has been noted.
Oxidising properties	Oxidising: no
Ignition temperature	Not available
Lower explosion limit	Not available
Upper explosion limit	Not available
Vapour pressure (hPa) at 25°C)	2x10 ⁻⁸ Pa
Vapour density (air=1)	Not available
Relative density (g/mL at 20°C)	1.61 g/mL
Bulk density (kg/m3)	Not available
Water solubility (20°C in g/L)	33 g/L
Solubility	Not available
Partition coefficient	Not available
Viscosity	Not available

10. STABILITY AND REACTIVITY

10.1 Chemical stability

Stable under recommended storage conditions.

10.2 Conditions to avoid

Do not heat above melting point.

10.3 Materials to avoid

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Strong oxidizing agents, Strong acids, Strong bases, Heavy metal salts, Plastics.

10.4 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: - Carbon oxides, nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity

LD50 Oral - rat	> 5,000 mg/kg
LD50 Dermal - rat	> 2,000 mg/kg
LC50 Inhalation - rat	> 0.52 mg/L

11.2 Skin corrosion/irritation

Not sensitizing

11.3 Serious eye damage/eye irritation

No data available

11.4 Respiratory or skin sensitization

Sensitizing

11.5 Germ cell mutagenicity

No data available

11.6 Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

11.7 Reproductive toxicity

No data available

11.8 Specific target organ toxicity - single exposure (GHS)

No data available

11.9 Specific target organ toxicity - repeated exposure (GHS)

No data available

11.10 Aspiration hazard

No data available

11.11 Potential health effects

Inhalation May be harmful if inhaled. May Cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May Cause skin irritation.

Eyes May Cause eye irritation.

11.12 Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

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15.2 DSL Status

All components of this product are on the Canadian DSL list.

15.3 SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

15.4 SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold(De Minimis) reporting levels established by SARA Title III, Section 313.

15.6 SARA 311/312 Hazards

No SARA Hazards

15.7 Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

15.8 Pennsylvania Right To Know Components

Azodicarbonamide	CAS-No.	Revision Date
	123-77-3	

15.9 New Jersey Right To Know Components

Azodicarbonamide	CAS-No.	Revision Date
	123-77-3	

15.10 California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

16.1 Revision Indicator

New MSDS(GHS)

16.2 Disclaimer

The information contained herein is accurate to the best of our knowledge. My Company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

12.7 Additional information

13. DISPOSAL CONSIDERATIONS

13.1 Product

Contact a licensed professional waste disposal service to dispose of this material.

13.2 Contaminated packaging

Dispose of as unused product.

13.3 Additional information

14. TRANSPORT INFORMATION

14.1 U.S. Department of Transportation (DOT)

UN No: UN3242

Proper shipping name: Azodicarbonamide

Class(es): 4.1

Packing group: PG 2

14.2 Land transport (ADR/RID/GGVSE)

UN No: UN3242

Proper shipping name: Azodicarbonamide

Class(es): 4.1

Classification Code: H334

Packing group: PG 2

Hazard label(s): N/A

Special provision(s): N/A

14.3 Sea transport (IMDG-Code/GGVSee)

UN No: UN3242

Proper shipping name: Azodicarbonamide

Class(es): 4.1

Packing group: PG 2

Marine Pollutant: N/A

Special provision(s): N/A

14.4 Air transport (ICAO-IATA/DGR)

Forbidden

14.5 Additional information

15. REGULATORY INFORMATION

15.1 OSHA Hazards

No known OSHA hazards

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Auxiliary (AC 670)

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Auxiliary (AC 670)
Article number: A00109
Use of substance/preparation: Additive
Manufacturer/Distributor:
YU SHINE CHEMICAL CO., LTD

YU SHINE CHEMICAL CO., LTD
TEL: +886-4-2406-5260
FAX: +886-4-2406-3280
E-mail: yushine66@gmail.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	Content	Cas No.
Ethyl/Vinyl Acetate Copolymer	80%	24937-78-8
Polyethylene Wax	20%	9002-88-4

3. HAZARDS IDENTIFICATION

Emergency overview:

WARNING! Combustible dust-explosion potential. Keep away from heat, sparks, and flame.
Dust may be irritating to eyes and upper respiratory tract.

Eye contact:

May cause mild eye irritation. Mild eye irritation: signs/symptoms can include redness, swelling, pain and tearing.

Skin contact:

May cause mild skin reaction. May cause a rash and itching of the skin. May cause skin defatting with prolonged exposure.

Inhalation:

May cause mild respiratory irritation.

Ingestion:

Swallowing a relatively large amount of this material is unlikely to produce serious illness or death.

4. FIRST AID MEASURES

If Inhaled:

Remove person to fresh air. If not breathing, give artificial respiration.
If breathing is difficult, get immediate medical attention.

If On Skin:

Remove contaminated clothing. Wash skin with water, using soap if available.
Remove contaminated clothing and laundry before reuse.
Get medical attention if irritation persists.

If In Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Additional information: The lists valid during the making were used as basis.

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection: Not necessary if room is well-ventilated.

Protection of hands: Protective gloves and protective skin cream

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Goggles recommended during refilling

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White beads

Dropping Point: 80-90 °C

Specific Gravity: 0.92 g/cm³

Odor: Faint

Danger of explosion: Product does not present an explosion hazard.

10. STABILITY AND REACTIVITY

Thermal decomposition/conditions to be avoided:

No decomposition if used according to specifications.

Dangerous reactions: No dangerous reactions known.

Dangerous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Primary irritant effect:

on the skin: No irritating effect.

on the eye: No irritating effect.

Sensitization: No sensitization effects known.

Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12. ECOLOGICAL INFORMATION

General Information:

Based on experience no adverse effects in drains or sewage systems are to be expected if correct disposal procedures have been followed.

13. DISPOSAL CONSIDERATIONS

Product:

Recommendation:

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

If Ingestion:

If swallowed, give at least 3-4 glasses of water, but do not induce vomiting.
Do not give anything by mouth to an unconscious or convulsing person.
Get medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing media:

Foam, water spray, carbon dioxide or dry chemical

Special exposure hazards:

Fight fire from a safe distance and from a protected location.

Use water spray to cool fire exposed surfaces.

Decomposition in fire may produce toxic gases.

Do not allow runoff to enter waterways.

Special protective equipment:

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

Unusual fire/explosion hazards:

Toxic emissions may result if product is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Person-related safety precautions: Not required.

Measures for environmental protection:

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Pick up mechanically.

Dispose of the material collected according to regulations.

Additional information: No dangerous substances are release

7. HANDLING AND STORAGE

Handling:

Information for safe handling:

The usual precautionary measures are to be adhered to when handling chemicals.

Ensure good ventilation/exhaustion at the workplace

Prevent formation of dust.

Information about fire - and explosion protection:

Dust can combine with air to form an explosive mixture.

Keep ignition sources away-Do not smoke.

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Store in dry conditions

Store in a cool place

Class according to regulation on flammable liquids: Void

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Uncleaned packaging:

Recommendations: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

Transport Regulation:

No transport regulation about the material.

15. REGULATORY INFORMATION

Inventory status:

Not listed on EINECS(EC), TSCA-CSI(USA), DSL(Canada), ALCS(Australia) and MITI(Japan)

16. OTHER INFORMATION

Data Source: YU SHINE CHEMICAL CO., LTD

Department issuing MSDS: Quality Control

Contact: D. Cindy

Zinc Oxide

Safety Data Sheet



According to Regulation of The Globally Harmonized System of Classification & Labeling of Chemicals

1. Identification Of The Substance / Preparation And Company

Product Information : Zinc Oxide

Catalogue No.:

Information On Producer/ Supplier Name : Pan-Continental Chemical Co., Ltd.

Addresses : No. 159, Chingnian R.d., Tachia (437), Taiwan

Phone : +886-4-26811401

Emergency Phone / Fax : +886-4-26811401 / +886-4-26811523

2. Hazard Identification :

Hazard category :



Contents of indication : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Else Hazard : -

3. Composition/Information On Ingredients

English Name : Zinc Oxide

CAS-No. : 1314-13-2 EC-No. : 215-222-5

M : 81.37 g/mol

Chemical formula : ZnO

CAS No	chemical name	content
1314-13-2	ZnO	100%

4. First Aid Measures :

After inhalation: fresh air.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water with the eyelid held wide open.

After swallowing: make victim drink water (two glasses at the most). Consult doctor if feeling unwell.

5. Fire Fighting Measure

Suitable extinguishing media:

In adaphon to materials stored in the immediate neighborhood.

Special risks:

Non-combustible. Ambient fire may liberate hazardous vapours.

9. Physical And Chemical Properties / Characteristics

Appearance : white powder.	Odor : Odorless.
Odor threshold : -	pH value : approx. 7
Melting Point : 1975 °C (decomposition)	Boiling Point : not applicable (sublimed)
Ignition temperature : not combustible	Flash Point : not flammable
Decomposition Temperature : -	Test Method : Open Cup Close Cup
Spontaneous Temperature : -	Exposure Limits : not applicable
Vapor Pressure : -	Bulk density : 200-700 kg/m ³
Specific Gravity : 5.61	Solubility In Water : insoluble

10. Stability And Reactivity :

Conditions to be avoided : none

Substances to be avoided : Violent reactions possible with hydrogen peroxide, magnesium.

Hazardous decomposition products : no information available.

11. Toxicological Information :

Acute toxicity

LC₅₀ (inhalation, rat): ≥5 mg/m³/3 h (Lit.)

LD₅₀ (oral, rat): >5000 mg/kg (IUCLID).

LD₅₀ (oral, human): 500 mg/kg (RTECS).

Subacute to chronic toxicity

Sensitization:

Experience in man: negative. (IUCLID)

Bacterial mutagenicity: Ames test: negative. (in vitro) (IUCLID)

Mutagenicity (mammal cell test): positive. (in vitro) (IUCLID)

Further toxicological information

After skin contact: Slight irritations.

After eye contact: Slight irritations.

Further data

The product should be handled with the care usual when dealing with chemicals.

12. Ecological Information

Biologic degradation:

Inorganic substance. Does not cause biological oxygen deficit.

Ecotoxic effects:

Biological effects:

Special protective equipment for fire fighting:

Do not stay in dangerous zone without self-contained breathing apparatus.

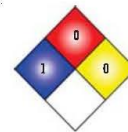
National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0

Reactivity: 0

Specific hazard:



Other information:

Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental Release Measures

Person-related precautionary measures:

Avoid inhalation of dusts.

Environmental-protection measures:

Do not allow to enter sewerage system.

Procedures for cleaning / absorption:

Take up dry. Forward for disposal. Clean up affected area. Avoid generation of dusts.

7. Handling And Storage :

Handling : No further requirements

Storage : Tightly closed. Dry. Storage temperature : no restrictions

8. Exposure Control/Personal Protection

Personal Protective Equipment :

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory Protection : required when dusts are generated. Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances.

Eye protection : required

Hand Protection : Wear protective gloves and clean body-covering clothing.

Skin & Body Protection : required

Hygiene Procedures : Change contaminated clothing. Wash hands after working with substance.

Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Fish toxicity: *Onchorhynchus mykiss* LC50: 1.1 mg/l /96 h (ECOTOX Database).

Daphnia toxicity: *Daphnia magna* EC50: >1000 mg/l /48 h (ECOTOX Database).

Algal toxicity: *Pseudokirchneriella subcapitata* IC50: 0.17 mg/l /72 h (External MSDS).

Further ecologic data

Do not allow to enter water, waste water, or soil!

13. Disposal Information

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

BY TRUCK(RID/ADg) NO DECLARATION REQUIRED

BY SEA(IMD/G/cod ONU) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, POWDER, ZINC OXIDE, 9, UN 3077, III

BY AIR(ICAO/IATA ONU) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, POWDER, ZINC OXIDE, 9, UN 3077, III

15. Regulatory Information :

Symbol:	N	Dangerous for the environment
R-phrases:	50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases:	60-61	This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/Safety data sheets.
EC-No	215-222-5	EC label

U.S Federal Regulation:

TSCA (Toxic Substance Control Act) Status

TSCA (United States) the international ingredients of this product are listed

CERCLA RQ - 40 CFR 302.4(a): Not Listed

SARA 302 Components - 40 CFR 355 Appendix A: None

RCA 261: TCLP Determination Pb, Cd

DOT 172: Not Regulated

FCC: Listed

Color: 73.1991, 2991

SARA 311/312: Yes (Acute)

SARA 313: Compounds: Zn, Pb

U.S. EPA Reg. No. 71645-3

U.S. EPA PC Code: 088502

U.S. TRI Reproductive Toxin - Yes

U.S. TRI Development Toxin - Yes

Rubber accelerator

黄岩浙东橡胶助剂进出口有限公司
HuangYan ZheDong Rubber Auxiliary Imp.&Exp.Co.,Ltd.
Safety Data Sheet
According to Regulation (EU) No. 1907/2006 (REACH), Annex II

Version: 1.0/EN
Trade name: Rubber Accelerator MBT
Revision date: 01/07/2019
Printing date: 01/07/2019

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Trade name: Rubber Accelerator MBT
Product description: 99% MBT mixture with distillates (petroleum), solvent-refined heavy naphthenic
REACH Reg. No.: No registration number is given yet. Since MBT have been pre-registered, the transition period for its registration according to Article 20 of REACH has not yet expired.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Used as rubber vulcanization accelerator.
Uses advised against: Not available.

1.3 Details of the supplier of the SDS
Only Representative: REACH COMPLIANCE SERVICES LIMITED
Address: 105TH Floor General Chamber of Commerce Building, Looching Belfu, Huangshan,
E-mail: kv@hachina.com

Manufacturer: HUANGYAN ZHEDONG RUBBER AUXILIARY IMP. & EXP. CO., LTD.
14th Floor General Chamber of Commerce Building, Looching Belfu, Huangshan,
E-mail: zhd@hachina.com
Telephone: +86 576 8421 5282/5226
Fax: +86 576 8420 0727

Importer: REACH COMPLIANCE SERVICES LIMITED
Address: 105TH Floor General Chamber of Commerce Building, Looching Belfu, Huangshan,
E-mail: kv@hachina.com
Telephone: +86 576 8421 5282/5226

1.4 Emergency telephone number
In China: +86 576 8421 5282/5226 (office hours available.)

Section 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 (CLP)

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Version: 1.0/EN
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Printing date: 01/07/2019

2.2 Label elements
Labeling according to Regulation (EC) No 1272/2008 (CLP)
Product description: 99% MBT mixture with distillates (petroleum), solvent-refined heavy naphthenic
Hazard pictograms:

Signal word: Danger
Hazard statements: H350: May cause cancer
H373: May cause an allergic skin reaction
H410: Very toxic to aquatic life with long lasting effects.
Precautionary statements: P201: Obtain special instructions before use.
P281: Avoid breathing dust/fume/gas/mist/vapour/spray.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313: IF exposed or concerned: Get medical advice / attention.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P333+P313: IF skin irritation or rash occurs: Get medical advice/attention.
P361: Wash contaminated clothing before reuse.
P501: Dispose of contents/container in accordance with local / regional / national / international regulations.

Supplemental Hazard Information (EUH):
No information available.
Special rules for supplemental label elements for certain mixtures:
No information available.

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Labeling according to directive 1999/45/EC
Symbol(s) and indication(s) of danger:

Risk Phrase: R45: May cause cancer.
R49: May cause sensitization by skin contact.
R50/R53: Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.
Safety Phrases: S2: Keep out of the reach of children.
S24: Avoid contact with skin.
S37: Wear suitable gloves.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53: Avoid exposure - obtain special instructions before use.
S60: This material and its container must be disposed of as hazardous waste.
S61: Avoid release to the environment. Refer to special instructions/safety data sheet.

2.3 Other hazards
No information available.

Section 3: Composition/information on ingredients

3.1 Ingredients information
Mixture

Substance name	CAS No.	Percentage
2,2-Dithiobis (Benzothiazole)	100-76-5	99%
2-Methyl-1-Hydroxypropan-2-ol	611-69-0	5%

Remark: The not unspecified ingredients are impurities, and they are not hazardous. Full text of the phrases and H-statements: see section 16.

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Version: 1.0/EN
Trade name: Rubber Accelerator MBT
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Printing date: 01/07/2019

Section 4: First aid measures

4.1 Description of first aid measures
General notes: Instantly remove any clothing soiled by the product. In all cases of doubt, or when symptoms persist, seek medical attention.
Following inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.
Following skin contact: Remove contaminated clothing and launder before reuse. Wash with soap and water. Get medical attention if irritation persists.
Following eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
Following ingestion: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.
Notes for the doctor: Provide symptomatic/supportive care as necessary. Treatment based on sound judgment of physician and individual reactions of patient.

4.2 Most important symptoms and effects, both acute and delayed
Eye Contact: May cause mild eye irritation. **Mild Eye Irritation:** signs/symptoms can include redness, swelling, pain and tearing.
Skin Contact: May cause mild skin irritation. May cause a rash and itching of the skin. May cause an allergic skin reaction.
Inhalation: May cause mild respiratory irritation.
Ingestion: May cause headache, dizziness, nausea, and vomiting, gastrointestinal irritation. Swallowing a relatively large amount of this material is unlikely to produce serious illness or death.
4.3 Indication of the immediate risks of attention and special treatment needed
Persons with pre-existing skin, eye, or respiratory disease may be at increased risk from the irritant or allergic properties of this material. Attending physician should treat exposed patients symptomatically.

Section 5: Fire-fighting measures

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Trade name: Rubber Accelerator MBT
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5.1 Extinguishing media
Suitable extinguishing media: Water fog, carbon dioxide, foam, dry chemical.
Unsuitable extinguishing media: Water spray.
5.2 Special hazards arising from the substance or mixture
Toxic emissions may result if product is involved in a fire.
Fire may cause evolution of: nitrogen oxides, sulfur oxides.
5.3 Advice for fire-fighters
Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear self-contained breathing apparatus and protective clothing. Present fire-fighting water from entering surface water or groundwater.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear suitable protective equipment. Avoid contact with eyes and skin.
6.2 Environmental precautions
Prevent from entering sewer system, surface water or soil.
6.3 Method and material for containment and cleaning
Sweep up and collect in a suitable container for disposal. Avoid dust formation.
6.4 Reference to other sections
See section 7 for information on safe handling. See section 8 for information on personal protective equipment. See section 13 for information on disposal.

Section 7: Handling and storage

7.1 Precautions for safe handling
Do not get in eyes, on skin, on clothing.
If fine dust is formed from this product, avoid dispersion of dust in air to reduce fire and explosion.

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7.2 Conditions for safe storage, including any incompatibilities
Store closed containers in a cool, dry, well-ventilated area, 50m away from strong oxidising material. Avoid exposure to direct sunlight.
7.3 Specific end uses
Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

Section 8: Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limit values:
CAS# 64781-16-4: United Kingdom: OD: 10 mg/m³
CAS# 149-30-4: Netherlands: MAC: 4 mg/m³
US: TLV: 3 mg/m³
Germany: 4 mg/m³
8.2 Exposure controls
Appropriate engineering controls: General: local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Adequate ventilation should be provided to keep dust concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with the applicable air pollution control regulations.
Personal protective equipment:
Eye and face protection: Wear safety glasses or goggles to protect against exposure. Eye protection is not required during typical product use conditions.
Skin protection: Use chemical resistant protective gloves.
Glove material: Nitrile rubber, Glove thickness: 0.11 mm, Break through time: > 400 min.
Respiratory protection: Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Recommended Filter type: Filter P2 (acc. to DIN 31818) for solid and liquid particles of harmful substances.
Environmental exposure controls: Do not empty into drains.
Industrial hygiene: Immediately change contaminated clothing. Apply skin-protective barrier cream.

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Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Solid (powder)
Colour: Yellow/light orange
Odour: Characteristic odour.
pH: No data available.
Boiling point: 225-230 °C
Melting point: No data available.
Specific gravity: 1.5 at 20°C
Vapour pressure: Negligible.
Partition coefficient (n-octanol/water): No data available.
Solubility: Slightly soluble in water.
Flash point: 200 °C (392 °F)
Explosive properties: No data available.
Oxidizing properties: No data available.

9.2 Other information
No information available.

Section 10: Stability and reactivity

10.1 Reactivity
No information available.

10.2 Chemical stability
This product is stable under normal storage and handling conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions known. Hazardous polymerization will not occur.

10.4 Conditions to avoid
Keep away from heat, sparks and flame. Dispersion of dust. Avoid contact with incompatible materials.

10.5 Incompatible materials
No information available.

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Section 11: Toxicological information

11.1 Toxicokinetics, metabolism and distribution
No information available.

11.2 Information on toxicological effects

Acute toxicity:
CAS# 64741-96-4: Acute Oral toxicity: LD₅₀ > 5000 mg/kg (rat) (HCLUD);
Acute Inhalation toxicity: LC₅₀ = 2.18 mg/l/4h (rat) (HCLUD);
Acute Dermal toxicity: LD₅₀ > 5000 mg/kg (rabbit) (HCLUD).
CAS# 149-30-4: Acute Oral toxicity: LD₅₀ = 200 mg/kg (rat) (HCLUD);
Acute Inhalation toxicity: LC₅₀ > 120 mg/kg (rat) (HCLUD);
Acute Dermal toxicity: LD₅₀ > 790 mg/kg (rabbit) (HCLUD).
The product: Acute Oral toxicity: LD₅₀ > 5000 mg/kg (rat);
Acute Inhalation toxicity: No data available.
Acute Dermal toxicity: LD₅₀ > 2000 mg/kg (rabbit).

Skin corrosion/irritation:
CAS# 64741-96-4: Skin, rabbit: slightly irritating (OECD Guide-line 404).
CAS# 149-30-4: Skin, rabbit: not irritating (HCLUD).
The product: Species: Rabbit, Result: Not irritating.

Serious eye damage/irritation:
CAS# 64741-96-4: Eyes, rabbit: not irritating (HCLUD).
CAS# 149-30-4: Eyes, rabbit: not irritating (HCLUD).
The product: Species: Rabbit, Result: Not irritating.

Respiratory or skin sensitization:
CAS# 64741-96-4: Not sensitization (HCLUD).
CAS# 149-30-4: May cause sensitization by skin contact.
The product: Species: Human, Result: Positive.

Mutagenicity:
CAS# 64741-96-4: Not mutagenic. Cases of human skin sensitization have been reported.

Carcinogenicity:
CAS# 64741-96-4: May cause cancer.

Reproductive toxicity:
CAS# 64741-96-4: Assessment: CHO-HPRRT: Negative. This material has positive in a mouse lymphoma mutagenicity assay. Negative in a mouse micronucleus assay. Cell

HuangYan ZheDong Rubber Auxiliary Imp.&Exp.Co.,Ltd.
Safety Data Sheet

Version: 1.0/EN
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Section 12: Ecological information

12.1 Toxicity

Biodegradability:
CAS# 64741-96-4: Biodegradability: Not readily biodegradable.
CAS# 149-30-4: Biodegradability: Not readily biodegradable.
The product: Biodegradability: Not readily biodegradable.

12.2 Persistence and degradability

CAS# 64741-96-4: Degradation: > 6 h after 28 days.
Method: OECD Guide-line 301 B
Result: Biologically not readily biodegradable.
CAS# 149-30-4: Degradation: > 2.5 h after 14 days.
Method: OECD Guide-line 301 C
Result: Biologically not readily biodegradable.

12.3 Bioaccumulation potential

CAS# 64741-96-4: No data available.
CAS# 149-30-4: Log Kow = 2.24-2.5;
No appreciable bioaccumulation potential is to be expected (log Pow 1-3).

12.4 Mobility in soil

HuangYan ZheDong Rubber Auxiliary Imp.&Exp.Co.,Ltd.
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Version: 1.0/EN
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Section 13: Disposal considerations

13.1 Waste treatment methods
General:
Dispose of in accordance with appropriate Federal, State, and local regulations. Avoid discharge to sewers and natural waters.
Non-hazardous packaging:
Empty drums should be decontaminated and either passed to an approved drum re-conditioner or destroyed. Containers that cannot be cleaned must be treated as waste.

Section 14: Transport information

14.1 Land transport (ADR/RID/CEC/CLC)

UN-No.: 3077
Official transport designation: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contain benzothiazole-2-thiol)
Class: 9
Classification Code: 3077
Packing group: III
Hazard label: 9

14.2 Sea transport (IMDG-Code/ICAO)

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contain benzothiazole-2-thiol)
Class: 9
UN-No.: 3077
Packing group: III

14.3 Air transport (ICAO-TI/IATA-DGR)

Class: 9
UN-No.: 3077
Packing group: III

HuangYan ZheDong Rubber Auxiliary Imp.&Exp.Co.,Ltd.
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Version: 1.0/EN
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Revision date: 11/07/2019
Printing date: 11/07/2019

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulation:
Substance class: No information available.
Restrictions on use: No information available.
REACH:
CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
CAS# 149-30-4 & 64741-96-4 are listed in the Annex.
DSD (67/440/EEC):
Other chemical regulation:
USA - TSCA: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
Canada - DSL: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
Australia - AICS: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
Japan - CCL: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
China - REACH: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
Hazard Rating System:
HMIS Classification: HEALTH 3, FLAMMABILITY 3, REACTIVITY 0, PPE: X

15.2 Chemical safety assessment
No Chemical Safety Assessment has been carried out for this product.

Section 16: Other information

16.1 Revision information
Date of the previous revision: Not applicable. Date of this revision: 17/12/2010.
Revision summary: The first new SDS.

16.2 Abbreviations and acronyms
No information available.

HuangYan ZheDong Rubber Auxiliary Imp.&Exp.Co.,Ltd.
Safety Data Sheet

Version: 1.0/EN
Task name: Rubber Accelerator MBT
Revision date: 11/07/2019
Printing date: 11/07/2019

Section 17: Other information

17.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulation:
Substance class: No information available.
Restrictions on use: No information available.
REACH:
CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
CAS# 149-30-4 & 64741-96-4 are listed in the Annex.
DSD (67/440/EEC):
Other chemical regulation:
USA - TSCA: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
Canada - DSL: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
Australia - AICS: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
Japan - CCL: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
China - REACH: CAS# 149-30-4 & 64741-96-4 are listed in the Inventory.
Hazard Rating System:
HMIS Classification: HEALTH 3, FLAMMABILITY 3, REACTIVITY 0, PPE: X

17.2 Chemical safety assessment
No Chemical Safety Assessment has been carried out for this product.

Section 18: Other information

18.1 Revision information
Date of the previous revision: Not applicable. Date of this revision: 17/12/2010.
Revision summary: The first new SDS.

18.2 Abbreviations and acronyms
No information available.



黄岩浙东橡胶助剂进出口有限公司

Huang Yan Zhe Dong Rubber Auxiliary Imp. & Exp. Co., Ltd.

Safety Data Sheet

According to Regulation (EU) No. 1907/2006 (REACH), Annex II

Version: 1.0/EN

Revision date: 01/07/2019

Trade name: Rubber Accelerator MBT

Printing date: 01/07/2019

The information in this Safety Data Sheet (SDS) was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. According to REACH Article 31(5), the SDS shall be applied in an official language of the Member State(s) where the substance or mixture is placed on the market, unless the Recipient Member State(s) concerned provide otherwise. It should also be noted that this SDS is applicable to the countries with English as an official language.

----- End of the SDS -----

Barium Sulfate

HUA TUNG CHEMICAL INDUSTRIAL CO., LTD.

74 Yung Chun Rd. Su-Ao, I-Lan, 27046, Taiwan. Tel : +886-3-9962910 Fax : +886-3-9964659

SAFETY DATA SHEET

Information of article & manufacture or supplier

Article : Baryte Powder
Type : BA-60
Usage : only for industrial use ; not for human or food
Manufacture : Hua Tung Chemical Industrial Co., Ltd. 74Yung Chun Rd. Su-Ao, I-Lan, 27046, Taiwan Tel : +886-3-9962910 Fax : +886-3-9964659
Name and Phone No for Emergency : Vincent Wu / +886-3-9962910

Information of composition

Name of article : Baryte Powder
Synonym : barium sulfate
CAS No : 7727-43-7
Chemical Formula : BaSO4
Composition by weight : 100 %

Hazardous composition and effect

Hazardous composition		
Name	Name	Name
N.A.	N.A.	N.A.
Potential Health effects : Acute effect : slightly hazardous in case of skin contact (irritant), of eye contact, of ingestion, of inhalation Chronic effect : CARCINOGENIC EFFECTS : A4 (Not classifiable for human or animal) by ACGIH ; 3 (Not classifiable for human) by IARC MUTAGENIC EFFECTS : Not available TERATOGENIC EFFECTS Not : available DEVELOPMENTAL TOXICITY : Not available		

Handling and Storage

Precaution	No specific safety phrase has been found applicable for this product
Storage	Keep container tightly closed in a well-ventilated area. Do not stack over three layer pallet.

Prevention of exposure

Preventive kit or equipment	Eye : protective eyeglasses not required but recommended Breathe : use approved dust mask Glove : usual glove Other : slurry is slippery; care should be taken while passing through
Ventilation	Ventilation system are advised to be operated through handling
Precaution for processing and storage	Avoid leaking and generating dust exposure
Personal hygiene	Clean contact part after processing

Physical and Chemical Property

Appearance	White powder
Odor	Odorless
PH	6.9
Melting pt : above 1500°C	Vapor pressure : N.A.
Vapor density : N.A.	Spec Gravity (water=1) : 4.2
Vaporization rate : N.A.	Solubility(in water) : insoluble

Characteristics of reaction and Stability

Stability	Stable	Precaution : none
	unstable	Hazardous decomposition : none
Hazardous polymerization	Possible	Precaution : none
	Impossible	
Incompatibility : none	Precaution : none	

Toxicity

Acute toxicity	No data has been found
Local effect	Not available
allergicity	skin irritation and reddish if contacted with powder
Chronic toxicity	May cause lung minor chock or damage for long time inhalation
other effect	Not available

First aid measure

Eye contact	Check for and remove any contact lenses · In case of contact , immediately flush eyes with plenty of water for at least 15 minutes · Get medical attention if irritation occurs ·
Skin contact	Wash with soap and water · Cover the irritated skin with an emollient · Get medical attention if irritation develops ·
Inhalation	If inhaled, remove to fresh air · If not breathing, give artificial respiration · If breathing is difficult give oxygen · Get medical attention ·
Ingestion	DO NOT induce vomiting unless directed to do so by medical personnel · Never give anything by mouth to an unconscious person · If large quantities of this material are swallowed, call a physician immediately · Loosen tight clothing such as a collar, tie, belt or waistband ·

Flame and explosion data

Flash Point : non-flammable	Explosion level	LEL : N.A.
Test method : N.A.		UEL : N.A.
Flame : Does not burn or support combustion	Extinguisher : not applicable	Special extinguishing process : unnecessary

Leakage

Small Spill	Use appropriate tools to put the spilled solid in convenient waste disposal container · Finish cleaning by spreading water on the contaminated surface and dispose of according to local regional authority requirement ·
Large Spill	Use shovel to put the material into a convenient waste disposal container · Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system · Be careful that the product is not present at a concentration level above TLV · Check TLV with local authorities

Environmental effect

Possible environmental effect	
air	Floated minute powder particle could cause air polluted and unclear earth
earth	Transportation of powder with air or water cause final deposition on surface of earth or environment
water	Powder particle flow with water would cause water whitened and turbid

Dumping

Comply with domestic related environment prevention code and relevant regulation
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Shipment information

UN No	N.A.	Classification of hazard	N.A.	Hazard label	N.A.
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Regulation and law

Applied regulation and code :
1. Air pollution prevention code
2. Waste handling and processing code
3. Other related regulation and code

Information Of MSDS


Unit for MSDS	Name : Huatung Chemical Ind.Co., Ltd Address : 74 Yung Chun Rd Su-Ao, I-Lan, Taiwan Tel : 886-3-9962910
MSDS maker	Title : Manager Vincent Wu
Revised Date	Jun. / 01 / 2022



APPENDIX G
First Aid training photo and certified person in factory

Training Photos







ရှေးဦးပြုစုခြင်း(အခြေခံ)

အောင်လက်မှတ်

ပဲခူး-----မြန်မာ့/ တိုင်းဒေသကြီး-----ပဲခူး-----မြို့နယ်၊
Melody Global Co.Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ
 မောင်/မ-----စိုးသက် အောင်-----သည်
 မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှကြီးမှူးကျင်းပသော
 ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(၂/၂၀၁၉) စာမေးပွဲကို
 အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။


 စစ်ဆေးသူ


 ဥက္ကဋ္ဌ

အမှုဆောင် (၀/၂၀၂၆)
 (တိုင်းနည်းပြမှူး) ပဲခူးတိုင်းဒေသကြီး
 ရာဇဉာဏ် ပြတနတ်--၁၉၃၉/၉၆--
 (မှမ်းပံ--၁၉၉၉/၂၀၁၁/၂၀၁၁/၂၀၁၄)
 B.F.A (P.O.T) 1998, Core Trainer-2004

အမည် -----စိုးစွယ်စိန်-----
 နေ့စွဲ ----- ၃၀/၀၅/၂၀၁၉ -----
တိုင်းဒေသကြီးကြက်ခြေနီကြီးကြပ်မှုဌာန
 ပဲခူးတိုင်းဒေသကြီး ပဲခူးမြို့



ရှေးဦးပြုစုခြင်း(အခြေခံ)

အောင်လက်မှတ်

ပဲခူး ----- မြည်နယ်/ တိုင်းဒေသကြီး ----- ပဲခူး ----- မြို့နယ်

Melody Global Co.Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ

မောင်/မ ----- လူမျိုး ----- သည်

မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှကြီးမှူးကျင်းပသော

ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(၂/၂၀၁၉) စာမေးပွဲကို

အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။

[Signature]
စစ်ဆေးသူ

[Signature]
ဥက္ကဋ္ဌ

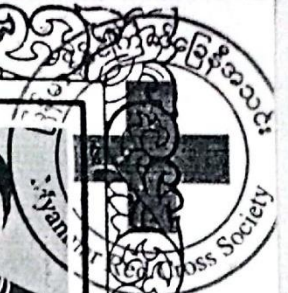
အမည် **သိမ်စောင့် (၀/၂၉၇၆)**
(တိုင်းနည်းပြမှူး) ပဲခူးတိုင်းဒေသကြီး
ရာထူး၊ ပြစ်မှုမှူး - ၁၀၃၉/၉၆

အမည် **ဦးစွာပြန်**
ဥက္ကဋ္ဌ

(မှမ်းမံ-၁၉၈၉/၂၀၀၁/၂၀၁၀/၂၀၁၄)

နေ့စွဲတိုင်းဒေသကြီးကြက်ခြေနီအသင်းမှူးကြီးကြီးအောင်လက်မှတ်
ပဲခူးတိုင်းဒေသကြီး၊ ပဲခူးမြို့

C.B.F.A (P.O.T) 1998, Core Trainer-2004



ရှေးဦးပြုစုခြင်း(အခြေခံ)

အောင်လက်မှတ်

----- ပဲခူး ----- မြည်နယ် / တိုင်းဒေသကြီး ----- ပဲခူး ----- မြို့နယ်၊

Melody Global Co. Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ

မောင်/မ ----- စန်းဒီဒီ ----- သည်

မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှကြီးမှူးကျင်းပသော

ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(၂/၂၀၁၉) စာမေးပွဲကို

အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။

Chaw
စစ်ဆေးသူ

Chaw
ဥက္ကဋ္ဌ

အမည် **ဆိမ်းအောင် (၀/၂၉၇၅)** အမည် ----- ဦး ရွှေမျိုး -----
(တိုင်းနည်းပြမှူး) ပဲခူးတိုင်းဒေသကြီး

ရာထူး နည်းပြအမှုထမ်း-၁၉၃၉/၅၆
(မှမ်းမံ-၁၉၉၉/၂၀၀၁/၂၀၁၀/၂၀၁၄)

C.B.E.A (P.O.T) 1998; Core Trainer-2004

နေ့စွဲ တိုင်းဒေသကြီးကြက်ခြေနီအသင်းမှ ဥက္ကဋ္ဌအဖြစ်
ပဲခူးတိုင်းဒေသကြီး၊ ပဲခူးမြို့



ရှေးဦးပြုစုခြင်း(အခြေခံ)

အောင်လက်မှတ်

ပဲခူး ----- ဗြိတိန်/ တိုင်းဒေသကြီး ----- ပဲခူး ----- မြို့နယ်၊

Melody Global Co., Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ

မောင်/မ ----- စည်သူထွန်း ----- သည်

မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှကြီးမှူးကျင်းပသော

ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(၂ / ၂၀၁၉) စာမေးပွဲကို

အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။

Handwritten signature
စစ်ဆေးသူ

Handwritten signature
ဥက္ကဋ္ဌ

အမည် သိမ်းအောင် (၀/ ၂၉၇၆)
(တိုင်းနည်းပြမှူး) ပဲခူးတိုင်းဒေသကြီး

အမည်

ဦး စွေဂြိန်

ရာထူး နည်းပြအမှုဆောင်-၁၉၉၉/၉၆

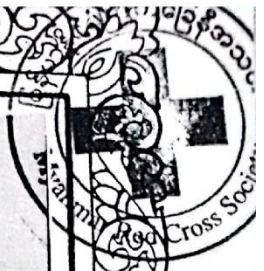
ဥက္ကဋ္ဌ

(မူရင်း-၁၉၉၉/၂၀၀၀/၂၀၀၀/၂၀၀၄)

နေ့စွဲ တိုင်းဒေသကြီးကြက်ခြေနီကြီးကြပ်မှုဌာန

C.B.F.A.(F.O.T)1998, Core-Trainer-2004

ပဲခူးတိုင်းဒေသကြီး၊ ပဲခူးမြို့



ရှေးဦးပြုစုခြင်း(အခြေခံ)

ဒေဂျင်လက်မှတ်

-----ပစ္စည်း-----ပြည်နယ်/ တိုင်းဒေသကြီး၊-----ပစ္စည်း-----မြို့နယ်၊

Melody Global Co. Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ

မောင်/မ-----သက်သက်စာရင်း-----သည်

မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှကြီးမှူးပျင်းပသော

ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(၂/၂၀၁၉) စာမေးပွဲကို

အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။

Ching
စစ်ဆေးသူ

[Signature]
ဥက္ကဋ္ဌ

အမည် **အိမ်အောင် (၀/၂၉၇၆)**
(တိုင်းနည်းပြမှူး) ပဲခူးတိုင်းဒေသကြီး
ရာထူး **ပြုစုမှုမှူး - ၁၀၃၉/၀၆**

အမည် **ဦးအောင်**
ဥက္ကဋ္ဌ
နေ့စွဲ **ဒေသကြီးကြက်ခြေနီအသင်းပြုစုမှုဌာနမှတ်တမ်း**
ပဲခူးတိုင်းဒေသကြီး၊ ပဲခူးမြို့၊

(မှမ်းမံ ၂၀၁၉/၂၀၂၀/၂၀၁၀/၂၀၁၄)
B.F.A (T.O.T) 1998; Core-Trainer-2004



ရှေးဦးပြုစုခြင်း(အခြေခံ)

အောင်လက်မှတ်

ပဲခူး-----မြန်မာ/ တိုင်းဒေသကြီး-----ပဲခူး-----မြို့နယ်၊

Melody Global Co.Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ

မောင်/မ-----စိုင်းသက်-----သည်

မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှကြီးမှူးကျင်းပသော

ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(၂ / ၂၀၁၉) စာမေးပွဲကို

အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။

စစ်ဆေးသူ

သိမ်းအောင် (၀/ ၂၉၇၆)

အမည် (တိုင်းနည်းပြမှူး) ပဲခူးတိုင်းဒေသကြီး အမည် -----

ရာထူး နည်းပြအမှတ်- ၁၀၃၉/၀၆

(မှမ်းမံ-၁၉၀၉/ ၂၀၀၁/ ၂၀၁၀/ ၂၀၁၄)

C. B. စိုင်းသက် (C.O.T.) 1998, Core Trainer-2004

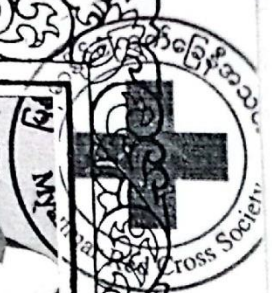
ဥက္ကဋ္ဌ

စိုင်းသက်

ဥက္ကဋ္ဌ

နေ့စွဲ တိုင်းဒေသကြီး ကြက်ခြေနီ ကြီးကြပ်မှုဌာနမှ

ပဲခူးတိုင်းဒေသကြီး၊ ပဲခူးမြို့။



ရှေးဦးပြုစုခြင်း(အခြေခံ)

အောင်လက်မှတ်

ပဲခူး ----- မြည်နယ်/ တိုင်းဒေသကြီး ----- ပဲခူး ----- မြို့နယ်၊

Melody Global Co. Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ

မောင်/မ ----- နှုတ်ကွန်း ဝင်း ----- သည်

မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှကြီးမှူးကျင်းပသော

ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(၂/၂၀၁၉) စာမေးပွဲကို

အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။

Handwritten signature
စစ်ဆေးသူ

Handwritten signature
ဥက္ကဋ္ဌ

အမည် သိမ်အောင် (၀/၂၉၂၆)
(တိုင်းနည်းပြမှု၊) ပဲခူးတိုင်းဒေသကြီး

အမည် -----
ဥက္ကဋ္ဌ

ရာထူးနည်း ပြအမှတ် -- ၁၀၃၉/၀၆

နေ့စွဲ တိုင်းဒေသကြီးကြက်ခြေနီကြီးကြပ်မှုဌာနမှ

(မှတ်ပုံ-၁၉၀၉/ ၁/၂၀၁၀/၂၀၁၄)

ပဲခူးတိုင်းဒေသကြီး၊ ပဲခူးမြို့

S.B.P.A (T.O. T) 1998; Core Trainer-2004



ရှေးဦးပြုစုခြင်း(အခြေခံ)

အောင်လက်မှတ်

-----မြန်မာနိုင်ငံ/ တိုင်းဒေသကြီး----- ဝန်ထမ်း ----- မြို့နယ်

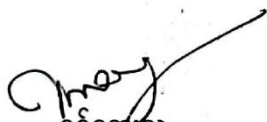
Melody Global Co.Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ

မောင်/မ ----- ဝန်ထမ်း ----- သည်

မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှ ကြီးမှူးပေးပို့သော

ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(၂ / ၂၀၁၉) စာမေးပွဲကို

အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။


စစ်ဆေးသူ


ဥက္ကဋ္ဌ

သိမ်းအောင် (၀/၂၉၂၅)
အမှုဆောင် (တိုင်းနည်းပြမှူး) ပဲခူးတိုင်းဒေသကြီး

အမည် ----- ဦးဇော်

ရာထူး ----- ၁၀၃၉/၀၆

နေ့စွဲ -----

(ပုဂံပံ-၁၉၀၉/ / ၂၀၁၀/၂၀၁၄)

B.F.A (E.O.F) 1998, Core Trainer-2004



ရှေးဦးပြုစုခြင်း(အခြေခံ)

အောင်လက်မှတ်

ပဲခူး ----- မြန်မာ့/ တိုင်းဒေသကြီး ----- ပဲခူး ----- မြို့နယ်၊

Melody Global Co. Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ

မောင်/မ ----- ဇီဝဗေဒ ထွန်းကျော် ----- သည်

မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှကြီးမှူးကျင်းပသော

ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(၂ / ၂၀၁၉) စာမေးပွဲကို

အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။

(Signature)
စစ်ဆေးသူ

(Signature)
ဥက္ကဋ္ဌ

အမည် **သိမ်အောင် (၀/၂၉၇၆)**
(တိုင်းနည်းပြမှူး) ပဲခူးတိုင်းဒေသကြီး

အမည် -----
ဥက္ကဋ္ဌ

ရာထူး နည်းပြအမှတ်-၁၀၃၉/၀၆
(မှမ်းမံ-၁၉၀၉/၂၀၀၀/၂၀၀၀/၂၀၀၄)

နေ့စွဲ တိုင်းဒေသကြီးကြက်ခြေနီအသင်းကြီးမှူးကော်မတီ
ပဲခူး -----

C.B.P.A (T.O.T) 1998, Core Trainer-2004



ရှေးဦးပြုစုခြင်း(အခြေခံ)

အောင်လက်မှတ်

ပံ့ပိုးခြင်း မြန်မာ့/ တိုင်းဒေသကြီး၊ ပံ့ပိုးခြင်း မြို့နယ်၊

Melody Global Co.Ltd ရပ်ကွက်/ကျေးရွာ/ကျောင်းမှ

မောင်/မ..... မိခင်/ဖခင်.....သည်

မြန်မာနိုင်ငံကြက်ခြေနီအသင်းမှကြီးမှူးကျင်းပသော

ရှေးဦးပြုစုခြင်းပညာအခြေခံအဆင့်(✓ / ၂၀၁၉) စာမေးပွဲကို

အရည်အချင်းပြည့်မီစွာအောင်မြင်ပါသည်။

Handwritten signature of the official

Handwritten signature of the official

အမည် သိမ်ထောင် (ပ/၂၉၇၆)
(တိုင်းနည်းပြမှူး) ပဲခူးတိုင်းဒေသကြီး

အမည် ဦးစွာ
ဥက္ကဋ္ဌ

ရာထူး ပြင်ဆင်ရေးမှူး-၁၀၃၉/၁၆
(မှမ်းမဲ-၁၉၈၉/၂၀၀၀/၂၀၁၀/၂၀၁၄)

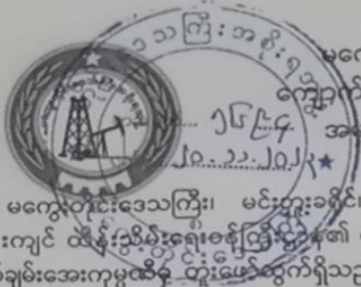
နေ့စွဲ ၂၀၁၉ ခုနှစ် ဇူလိုင်လ ၁၅ ရက်
ပဲခူးတိုင်းဒေသကြီး ပဲခူးမြို့

C.B.F.A. T.O. T. 1998; Core Trainer-2004

APPENDIX H Firefighting Training Photos



APPENDIX I Coal Carriage Permit



မကွေးတိုင်းဒေသကြီးအစိုးရအဖွဲ့
ကျောက်မီးသွေးသယ်ဆောင်ခွင့်လက်မှတ်
အမှတ်စဉ်(၅၆၉၄/၂၀၂၃-၂၀၂၄)

ရက်စွဲ၊ ၂၀၂၃ ခုနှစ်၊ နိုဝင်ဘာလ ၂၀ ရက်

မကွေးတိုင်းဒေသကြီး၊ မင်းဘူးခရိုင်၊ မင်းဘူး(စကျ)မြို့နယ်၊ သံပုရာကိုင်းဒေသတွင် သယ်စာတစ်ခု သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန၏ ကျောက်မီးသွေးတူးဖော်ထုတ်လုပ်ခွင့် ခွင့်ပြုမိန့်လိုက်စင်ရရှိထားသည့် မြင့်မြတ်ချမ်းအေးကုမ္ပဏီမှ တူးဖော်ထွက်ရှိသည့် ကျောက်မီးသွေးများကို တာဝန်ခံ ဦးမောင်မောင်စိုး၊ နိုင်ငံသားစိစစ်ရေးကတ်အမှတ်၊ ၉/ခမစ (နိုင်) ၀၀၈၈၈၉၏ လျှောက်ထားချက်အရ အောက်ပါအတိုင်း သယ်ဆောင်ခွင့်ပြုသည်-

<ul style="list-style-type: none"> (က) သယ်ဆောင်ခွင့်ပြုသည့်အရေအတွက် (ခ) ဝန်ဆောင်ခပေးသွင်းသည့် ချလံအမှတ်နှင့်ရက်စွဲ (ဂ) လက်ခံမည့် လူပုဂ္ဂိုလ်/စက်ရုံအမည် မြို့နယ်/ဒေသ (ဃ) သယ်ဆောင်ခွင့်ပြုသည့်ရက် (င) သယ်ဆောင်မည့်ယာဉ်အမှတ် (စ) ယာဉ်မောင်းသူအမည် (ဆ) သယ်ဆောင်မည့်လမ်းကြောင်း (ဇ) သယ်ဆောင်ရမည့်ထုပ်ပိုးမှုပုံစံ (ဈ) လမ်းတံတားသုံးစွဲမှုကန့်သတ်ချက် (ည) ရပ်နားခြင်းမပြုရန်နေရာကန့်သတ်ချက် (ဋ) သတိပြုလိုက်နာဆောင်ရွက်ရမည့်အချက် 	<ul style="list-style-type: none"> - (၂၈)တန် (နှစ်ဆယ့်ရှစ်တန်) - ချလံအမှတ်(၈၅)၊ (၁၇-၁၁-၂၀၂၃) - ဖိနပ်ချုပ်စက်ရုံ - ပဲခူးမြို့ - (၂၀-၁၁-၂၀၂၃)မှ (၂၁-၁၁-၂၀၂၃)ရက်နေ့ထိ - (3P/7945) (၂၂-ဘီး) - ဦးသောင်းညွန့် - သံပုရာကိုင်း - မင်းဘူး - မကွေး - သစ်ရာကောက် - ကိုးပင် - အောင်လံ - ပြည် - စီးကုန်း - သာယာဝတီ - တိုက်ကြီး - ထောက်ကြန့် - ရန်ကုန် - ပဲခူး - သယ်ဆောင်ရာလမ်းကြောင်းတစ်လျှောက်တွင် ကျောက်မီးသွေးတူးဖော်စင်မှုမရှိစေရေးမိုးကာစများဖြင့် ဖုံးအုပ်ချည်နှောင်၍သယ်ဆောင်ရန် - ၁၃တန်သာခံနိုင်ဝန်အားရှိသည့် တံတားတွင် လမ်းလွှဲမှမောင်းနှင်ရန်၊ - စာသင်ကျောင်း၊ ဈေး၊ လူစည်ကားသည့်နေရာများ - မျှောစာတွင်သတ်မှတ်ထားသောတန်ချိန်ထက် ပိုမို တင်ဆောင်ခြင်းမပြုရန်၊ မျှောစာတွင်ပါရှိသောနေရာ၊ ဒေသ၊ အလုပ်ရုံ၊ စက်ရုံများသို့သာ ပို့ဆောင်ရန်နှင့် သယ်ဆောင်မည့် လမ်းကြောင်းတစ်လျှောက်ရှိ တာဝန်ရှိသူများမှာစစ်ဆေးပါက စစ်ဆေးမှုခံယူရန်
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မှတ်ချက်။

- (၁) ဧရာဝတီတံတား(မကွေး)သို့ ဖြတ်သန်းသယ်ဆောင်သည့် ယာဉ်များအနေဖြင့် မင်းဘူးမြို့နယ် အထွေထွေအုပ်ချုပ်ရေးဦးစီးဌာနနှင့် ဧရာဝတီတံတားစစ်ဆေးရေးဂိတ်၊ ဌာနဆိုင်ရာပူးပေါင်းစစ်ဆေးရေးဂိတ်၊ အဝေးပြေးကားကြီးကွင်း၊ မကွေးမြို့တွင် မပျက်မကွက် အစစ်ဆေးခံပြီးမှ ဖြတ်သန်း သယ်ဆောင်ရန်။
- (၂) Covid-19 ကာလအတွင်း ထုတ်ပြန်ထားရှိသော ညမထွက်ရအမိန့်တွင် သတ်မှတ်ထားသည့်အချိန်အတွင်း ယာဉ်များအား သယ်ယူမောင်းနှင်ဆောင်ရွက်ခြင်းမပြုရ။


(စိုင်းမြင့်အေး)
သယ်စာတရားရေးရာဝန်ကြီး

ဖြန့်ဝေခြင်း
ဦးမောင်မောင်စိုး (လျှောက်ထားသူ)
မိတ္ထီကို
ရုံးလက်ခံ
Minine(Nov)667

APPENDIX J
Licenses and Certificates



Hazardous Business License of Bago City Development Committee

ပဲခူးမြို့နယ်စည်ပင်သာယာရေးအဖွဲ့
ပဲခူးမြို့



အန္တရာယ်
လုပ်ငန်းလိုင်စင်

00006

၅. ၄. ၂၀၂၃

ဦး/ဒေါ် Mr.Chu Chein Kang ရက်စွဲ၊ 306649448

နေရပ် အမှတ်(၂၆)မှ (၂၈)၊ စက်မှုဇုန်၊ ဥယျာဉ်မြို့သစ်(၉)ရပ်ကွက်၊ ပဲခူးမြို့ သည်

ပဲခူးမြို့နယ်စည်ပင်သာယာရေးအဖွဲ့သို့ ၅. ၄. ၂၀၂၃ ရက်စွဲပါ

ဖြေစာ/ချလံအမှတ် ၂၁၃၇/၂၂ နှင့် ကျပ် ၆၀၀၀၀၀/- (စာဖြင့် Melody Global Co.,Ltd

ခြောက်သိန်း တိတိ) ပေးသွင်းပြီးဖြစ်သဖြင့် ဥယျာဉ်မြို့သစ်(၉) ရပ်ကွက်၊ စက်မှုဇုန် လမ်း၊

အမည်ပါ လုပ်ငန်းအားပဲခူးမြို့ (၂၆)မှ(၂၈) တွင် ပဲခူးတိုင်းဒေသကြီးစည်ပင်သာယာရေးဥပဒေ၊ အခန်း(၄)၊ ပုဒ်မ(၃) (ခ)၊ အခန်း(၆)

ပုဒ်မ ၁၃ (ဆ၊ ဌ၊ ဍ)၊ အခန်း(၁၉)၊ ပုဒ်မ ၇၀ (က)(ခ)(ဂ)၊ ပုဒ်မ ၇၁ (က)(ခ)နှင့် ပုဒ်မ ၇၃ (က) ယင်းတို့နှင့်


ပတ်သက်၍ ပြဋ္ဌာန်းထားသော စည်းကမ်းချက်များနှင့်အညီ ဖိနပ်နှင့်အားကစားပစ္စည်းစက်ရုံ လုပ်ငန်းကို

၂၀၂၃-၂၀၂၄ ဘဏ္ဍာရေးနှစ် အတွက် လုပ်ကိုင်ခွင့်ပြုလိုက်သည်။

ဤလုပ်ငန်းလိုင်စင်သည် ၂၀၂၄ ခုနှစ်၊ မတ် (၃၁)ရက်တွင် သက်တမ်းကုန်ဆုံးသည်။

လိုင်စင်အမှတ်၊ ၆၉

မှတ်ပုံတင်အမှတ်၊ ၇


 ဒေသ အမှုဆောင်အရာရှိ
 ပဲခူးမြို့နယ်စည်ပင်သာယာရေးအဖွဲ့
 သို့

မှတ်ချက်။ ။ ဤလိုင်စင်ကို လူအများမြင်တွေ့နိုင်သောနေရာတွင် မှန်ဘောင်သွင်း၍ ချိတ်ဆွဲထားရမည်။



စက်မှုဝန်ကြီးဌာန

ပဲခူးတိုင်းဒေသကြီးစက်မှုကြီးကြပ်ရေးနှင့် စစ်ဆေးရေးဦးစီးဌာန

လျှပ်စစ်-စစ်ဆေးရေး

အကွက်အမှတ်(၉)၊ သမိန်ဗရမ်းလမ်း၊ (၆)ရပ်ကွက်၊ ဥဿာမြို့သစ်၊ ပဲခူးမြို့။

လျှပ်စစ်ဓာတ်အားအသုံးပြုခြင်းဆိုင်ရာအန္တရာယ်ကင်းရှင်းကြောင်းလက်မှတ်

လက်မှတ်အမှတ်စဉ် EI/BR ပခ-၁၅

၂၀၁၄ ခုနှစ် လျှပ်စစ်ဥပဒေပုဒ်မ ၃၂(ဃ)တွင် ပြဋ္ဌာန်းချက်အရ လျှပ်စစ်ဓာတ်အားအသုံးပြုခြင်း လုပ်ငန်းကို စစ်ဆေးရာတွင် လျှပ်စစ်ဥပဒေဆိုင်ရာလုပ်ထုံးလုပ်နည်းများနှင့် ကိုက်ညီကြောင်း စစ်ဆေး တွေ့ရှိရသဖြင့် အောက်ဖော်ပြပါနေရာဒေသ၌ လျှပ်စစ်ဓာတ်အားအသုံးပြုခြင်းလုပ်ငန်းကို အန္တရာယ် ကင်းရှင်းကြောင်းလက်မှတ် ထုတ်ပေးလိုက်သည်-

၁။ လျှပ်စစ်ဓာတ်အားအသုံးပြုခြင်း

- (က) သတ်မှတ်ဗို့အား: ၄၀၀ / ၂၃၀ ဗို့
- (ခ) လုပ်ငန်းအမျိုးအမည်: 'Melody Global Co.,Ltd'
ဖိနပ်စက်ရုံ
- (ဂ) ခွင့်ပြုဝန်အား: 1072 HP

၂။ နေရာဒေသ: Mr. Chu Sau Lin
အမှတ် ၂၆/၂၇/၂၈၊ ပြည်ပစက်မှုနယ်မြေ၊
ညောင်အင်းကျေးရွာ၊ ပဲခူးမြို့။

၃။ လက်မှတ်ထုတ်ပေးသည့်ရက်: ၂၀ . ၁၀ . ၂၀၂၃

၄။ လက်မှတ်ကုန်ဆုံးသည့်ရက်: ၁၉ . ၁၀ . ၂၀၂၄

(ကျောဘက်တွင် ဖော်ပြထားသောစည်းကမ်းချက်များကိုလိုက်နာရပါမည်။)

မှတ်ချက်။ 11/0.4 KV, 1000 kVA Transformer တပ်ဆင်အသုံးပြုသည်။
ပြုပြင်ရန်ကိစ္စရပ်များလိုက်နာဆောင်ရွက်ရန်။



စစ်ဆေးရေးမှူး
ပဲခူးတိုင်းဒေသကြီး လျှပ်စစ်စစ်ဆေးရေး
ဇယ'

Private Industrial Work Registration Certificate

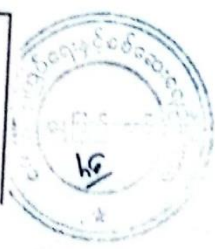


ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
 စက်မှုဝန်ကြီးဌာန
 စက်မှုကြီးကြပ်ရေးနှင့်စစ်ဆေးရေးဦးစီးဌာန
 ပုဂ္ဂလိကစက်မှုလုပ်ငန်းမှတ်ပုံတင်လက်မှတ်

စက်မှုမှတ်ပုံတင်အမှတ် _____ ၀၁/ကြီး/၈၀၄ _____ ရက်စွဲ ၂၀ . ၉ . ၂၀၁၇
 လုပ်ငန်းအရွယ်အစား အကြီးစား ပြည်ထောင်စုနယ်မြေ/တိုင်းဒေသကြီး/ပြည်နယ် _____ ပဲခူး
 အောက်ပါလုပ်ငန်းသည် ပုဂ္ဂလိကစက်မှုလုပ်ငန်း ဥပဒေ ပုဒ်မ ၇ ပုဒ်မခွဲ (ဝ)အရ မှတ်ပုံတင်ပြီး
 ဖြစ်ပါသည်။ Melody Global Co.,Ltd. CMP စနစ်ဖြင့် Footwears and Outdoor Sports
 ၁။ လုပ်ငန်းအမည် _____ Products ထုတ်လုပ်ခြင်းလုပ်ငန်း
 ၂။ လုပ်ငန်းအမျိုးအမည် _____ ဝတ်ဆင်ရေးလုပ်ငန်း
 ၃။ အဓိကကုန်ချောပစ္စည်းအမျိုးအမည် _____ Boots, Sandals, Men's Shoes, Ladies Shoes

 ၄။ တည်နေရာလိပ်စာ အမှတ်(၂၆၊ ၂၇၊ ၂၈) ညောင်အင်းပြည်ပစက်မှုနယ်မြေ၊ ပဲခူးမြို့၊ ပဲခူးခရိုင်

 ၅။ ပိုင်ဆိုင်မှုအမျိုးအစား _____ ကုမ္ပဏီပိုင်
 ၆။ လုပ်ငန်းရှင်အမည် _____ Mr. CHU, SAU - LIN (M.D)
 ၇။ ကိုင်ဆောင်သည့်မှတ်ပုံတင်အမှတ် _____ PP.No. 309720344
 ၈။ ရင်းနှီးမြှုပ်နှံမှုတန်ဖိုး(ကျပ်) ၁၇၆၈. ၂၉ သန်း+USD ၇. ၁၀သန်း တည်ထောင်သည့်ခုနှစ် ၂၀၁၇
 ၉။ အသုံးပြုသည့်အားအမျိုးအစား ထရန်စဖော်မာ/လျှပ်ထုတ်စက် မြင်းကောင်ရေ ၁၀၇၂ HP/
 ၁၀။ အလုပ်သမားဦးရေ _____ ၅၀၅ ဦး _____ ၈၇၄ KVA
 ၁၁။ မှတ်ပုံတင်သက်တမ်းကုန်ဆုံးသည့်နေ့ရက် _____ ၃၁. ၉. ၂၀၁၈



[Signature]
 အေးအေးဝင်း
 ညွှန်ကြားရေးမှူးချုပ်

လုပ်ငန်းရှင်များလိုက်နာရန်စည်းကမ်းချက်များ

- ၁။ ဤမှတ်ပုံတင်လက်မှတ်ကို အများမြင်သာသည့်နေရာတွင် ချိတ်ဆွဲထားရမည်။
- ၂။ ဤမှတ်ပုံတင်လက်မှတ်ကို မသက်ဆိုင်သူအား လွှဲအပ်ခြင်း သို့မဟုတ် လွှဲပြောင်းပေးခြင်းမပြုရ။
- ၃။ ဤမှတ်ပုံတင်လက်မှတ်ပါ အချက်အလက်များကို ပြင်ဆင်ခြင်း သို့မဟုတ် ဖြည့်စွက်ခြင်းမပြုရ။
- ၄။ ဤမှတ်ပုံတင်လက်မှတ် ပျောက်ဆုံးလျှင် မှတ်ပုံတင်လက်မှတ်မိတ္တူကို ထုတ်ပေးရန် ပြည်ထောင်စုနယ်မြေ သို့မဟုတ် တိုင်းဒေသကြီး သို့မဟုတ် ပြည်နယ်ဦးစီးဌာနမှူးထံ ခိုင်လုံသော အထောက်အထားနှင့်အတူ လျှောက်ထားရမည်။
- ၅။ မှတ်ပုံတင်လက်မှတ်ပျက်စီးလျှင် သို့မဟုတ် မထင်မရှားဖြစ်လျှင် သို့မဟုတ် မှတ်ပုံတင်လက်မှတ် ပါ အချက်အလက်များ ပြောင်းလဲရန်လိုအပ်လျှင် ပြည်ထောင်စုနယ်မြေ သို့မဟုတ် တိုင်းဒေသကြီး သို့မဟုတ် ပြည်နယ်ဦးစီးဌာနမှူးထံ မှတ်ပုံတင်လက်မှတ်နှင့် ပူးတွဲတင်ပြလျှောက်ထားရမည်။
- ၆။ ဤမှတ်ပုံတင်လက်မှတ်ကို စက်မှုလုပ်ငန်းနှင့်စပ်လျဉ်းသည့်ကိစ္စမှအပ မည်သည့်ကိစ္စတွင်မျှ အသုံးမပြုရ။
- ၇။ မှတ်ပုံတင်သက်တမ်းကုန်ဆုံးမီ သက်တမ်းတိုးမြှင့်ပေးရန် လျှောက်ထားရာတွင် ဤမှတ်ပုံတင် လက်မှတ်ကို ပူးတွဲတင်ပြရမည်။
- ၈။ သက်တမ်းကုန်ဆုံးပြီး ရက်ပေါင်း (၆၀)အတွင်း သက်တမ်းတိုးမြှင့်လျှောက်ထားပါက သတ်မှတ်သည့် ဒဏ်ကြေးကို ပေးဆောင်ရမည်။
- ၉။ သက်တမ်းတိုးမြှင့်ရန် လျှောက်ထားခြင်းမရှိပါက မှတ်ပုံတင်ပျက်ပြယ်ပြီးဖြစ်သည်။

မှတ်ပုံတင်သက်တမ်းတိုးမြှင့်ခြင်း

စဉ်	ချလန်အမှတ်/ရက်စွဲ	မှတ်ပုံတင်သက်တမ်းကုန်ဆုံးမည့်နေ့ရက်	ခွင့်ပြုချက်မှတ်ပုံတင်
၁	၂၃၁/၅.၃.၂၀၁၈	၃၀.၃.၂၀၁၉ ၂၀၁၉-၀၃	၂၃/၂၀၁၈ ချလန်အမှတ်
၂	၂၆၆/၇.၃.၂၀၁၉	၃၀.၃.၂၀၂၀ ၂၀၂၀-၀၃	၂၆/၂၀၁၉ ချလန်အမှတ်
၃	၃၅/၁၈.၃.၂၀၂၀	၃၀.၃.၂၀၂၁ ၂၀၂၁-၀၃	၃၅/၂၀၂၀ ချလန်အမှတ်
၄	၃၄/၁၅.၃.၂၀၂၁	၃၀.၃.၂၀၂၂ ၂၀၂၂-၀၃	၃၄/၂၀၂၁ ချလန်အမှတ်
၅	၇၈/၉.၃.၂၂	၃၀.၃.၂၀၂၃ ၂၀၂၃-၀၃	၇၈/၂၀၂၂ ချလန်အမှတ်
၆	၇၉/၁၇.၃.၂၃	၃၀.၃.၂၀၂၄	၇၉/၂၀၂၃ ချလန်အမှတ်

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ

ပြည်ထဲရေးဝန်ကြီးဌာန

မီးသတ်ဦးစီးဌာန



မီးဘေးလုံခြုံရေးစစ်ဆေးထောက်ခံချက်

အမှတ်စဉ်(၂၃၀)

ရက် စွဲ၊ ၂၀၂၃ ခုနှစ်၊ ဧပြီလ ၂၅ ရက်

၁။ ပဲခူး တိုင်းဒေသကြီး/ပြည်နယ်၊ ပဲခူး မြို့နယ်၊ ပြည်ပစက်မှုဇုန်နယ်မြေ၊ ညောင်အင်းကျေးရွာ ရပ်ကွက်/ကျေးရွာ၊ (-) လမ်း၊ အမှတ် မြေကွက်အမှတ်(၂၆၊ ၂၇၊ ၂၈) ရှိ ပိုင်ရှင် ဦး/ဒေါ် Melody Global Co.,Ltd. ၏ Steel Structure (၁)ထပ် (ဖိနပ်စက်ရုံ) (၇)လုံး၊ Steel Structure (၁)ထပ်(Office) (၁)လုံး၊ Steel Structure (၁)ထပ် (Warehouse) (၃)လုံး၊ Steel Structure (၁)ထပ်(Canteen) (၂)လုံး၊ Steel Structure (၁)ထပ်(Dormitory) (၅)လုံး၊ Steel Structure (၁)ထပ်(Store) (၁)လုံး၊ Steel Structure (၁)ထပ် (Generator Room) (၁)လုံး၊ Steel Structure (၁)ထပ်(Boiler Room) (၁)လုံး၊ စုစုပေါင်း(၂၁)လုံး အဆောက်အဦ

အတွက် ဤဌာနမှ သတ်မှတ်ပေးထားသည့် မီးဘေးလုံခြုံရေးဆိုင်ရာပြဌာန်းချက်များအား (၃၀-၃-၂၀၂၃) ရက်နေ့တွင် စစ်ဆေးသည့်အခါ ပြည့်စုံစွာဆောင်ရွက်ထားကြောင်း စစ်ဆေးတွေ့ရှိရသည်။

၂။ ဤထောက်ခံချက်သည် စစ်ဆေးသည့်နေ့မှစ၍ (၃)နှစ်အထိသာ အကျုံးဝင်သည်။

၃။ ထို့ပြင် မီးသတ်ဦးစီးဌာနမှ အခါအားလျော်စွာ ထပ်မံစစ်ဆေးချိန်တွင် မီးဘေးလုံခြုံရေးဆိုင်ရာ ပြဌာန်းချက်များကို လိုက်နာဆောင်ရွက်ခြင်းမရှိပါက ဤထောက်ခံချက်ကို ပြန်လည်ရုတ်သိမ်းသွားမည်ဖြစ်ပြီး အဆောက်အဦအား အသုံးပြုသူ(သို့မဟုတ်)ပိုင်ရှင်သည် မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ဥပဒေအရအရေးယူခြင်းခံရမည်။

မှတ်ချက်။ ဤထောက်ခံချက်အား လွှဲပြောင်းသုံးစွဲခြင်းမပြုရ။ အဆောက်အဦအား မူလရည်ရွယ်ချက်မှ ပြောင်းလဲအသုံးပြုပါက ထောက်ခံချက်အသစ် ထပ်မံလျှောက်ထားရမည်။

ညွှန်ကြားရေးမှူးချုပ်(ကိုယ်စား)
(သိန်းထွန်းဦး၊ ညွှန်ကြားရေးမှူး)
[Handwritten Signature]

FSC(Way Lin)

Certificate for Chemical and Related Substances



ဓာတုပစ္စည်းနှင့်ဆက်စပ်ပစ္စည်းများအန္တရာယ်မှ
 တားဆီးကာကွယ်ရေး
 ဗဟိုကြီးကြပ်ရေးအဖွဲ့

ကုမ္ပဏီ/လုပ်ငန်းအမည်


Melody Global Co.,Ltd.

မှတ်ပုံတင်ခွင့်ပြုသည့် ဓာတုပစ္စည်းနှင့် ဆက်စပ်ပစ္စည်းများအမည်စာရင်း

စဉ်	ဓာတုပစ္စည်းနှင့်ဆက်စပ်ပစ္စည်းအမျိုးအမည်	တစ်နှစ်အသုံးပြုရန် ခန့်မှန်းပမာဏ (ကီလိုဂရမ် သို့မဟုတ် လီတာ)
1.	EVA Color Masterbatch (E 8504) (Poly (Ethylene-co-Vinyl Acetate)/ 2,4,6-Trimethyl-1,3-Benzenedimethanethiol)	10,000 Kg
2.	White Carbon ZQ356 (Silicon Dioxide)	25,000 Kg
3.	Calcium Carbonate	70,000 Kg
4.	Titanium Dioxide	15,000 Kg
5.	Stearic Acid (Heptadecanoic Acid/ Hexadecanoic Acid/ Octadecanoic Acid)	10,000 Kg
6.	Foaming Agent (Azodicarboxamide)	11,000 Kg
7.	Auxiliary (AC 670) (Ethyl/ Vinyl Acetate Copolymer/ Polyethylene Wax)	15,000 Kg
8.	Zinc Oxide	9,000 Kg
9.	Rubber Accelerator MBT (2,2'-Dithiobis(Benzothiazole)/ 2-Methyl-1-Phenylpropanol)	13,000 Kg
10.	Barium Sulfate (Baryte Powder)BA-60 (Barium Sulfate)	20,000 Kg



မှတ်ချက်။ လုပ်ငန်းလိုအပ်ချက်အရ တစ်နှစ်အသုံးပြုရန် ခန့်မှန်းပမာဏမှာပြောင်းလဲမှုရှိနိုင်ပါသည်။

 Central Leading Board	ဓာတုပစ္စည်းနှင့်ဆက်စပ်ပစ္စည်းများအန္တရာယ်မှ တားဆီးကာကွယ်ရေး ဗဟိုကြီးကြပ်ရေးအဖွဲ့	ပုံစံ	၈
		ဓာတုပစ္စည်း	၁၀
		အရေအတွက် (မျိုး)	(မျိုး)
		သက်တမ်း	၂ နှစ်

ဓာတုပစ္စည်းနှင့်ဆက်စပ်ပစ္စည်းများ မှတ်ပုံတင်လက်မှတ်

မှတ်ပုံတင်လက်မှတ်အမှတ်စဉ် ၀၀၃၁၈၁
 (နည်းဥပဒေ ၂၇)



ရက်စွဲ၊ ၂၀၂၄ ခုနှစ်၊ ဧပြီလ ၂၂ ရက်

၁။ ၉-၂-၂၀၂၄ ရက်စွဲပါ လျှောက်လွှာအမှတ် ၀၀၃၅၃၁ ဖြင့်
 မှတ်ပုံတင်ခွင့်ပြုရန် လျှောက်ထားသော ဓာတုပစ္စည်းနှင့် ဆက်စပ်ပစ္စည်းများအား မြန်မာနိုင်ငံ အတွင်း
 အသုံးပြုရန် မှတ်ပုံတင်ပြီးဖြစ်သည်။

၂။ တာဝန်ခံလျှောက်ထားသူ၏အမည် Mr. Chu Chien Kang

၃။ နိုင်ငံသားစိစစ်ရေးကတ်ပြားအမှတ် 360100186
 သို့မဟုတ် နိုင်ငံခြားသားမှတ်ပုံတင်အမှတ်

၄။ အမြဲတမ်းနေရပ်လိပ်စာ Plot No. 26 , 27, 28, Bago Industrial Zone, Bago Region.

၅။ ဆက်သွယ်ရန်ဖုန်းနံပါတ် သို့မဟုတ် 09 250072568
 ဖက်စ်(Fax)နံပါတ် သို့မဟုတ် e-mail လိပ်စာ

၆။ လုပ်ငန်းလိပ်စာ အမှတ်(၂၆၊ ၂၇၊ ၂၈)၊ ညောင်အင်းပြည်ပစက်မှုနယ် မြေ၊ ပဲခူးမြို့၊ ပဲခူးတိုင်းဒေသကြီး။

၇။ ဆက်သွယ်ရန်လုပ်ငန်းဖုန်းနံပါတ် သို့မဟုတ် 09 250072568
 ဖက်စ်(Fax)နံပါတ် သို့မဟုတ် e-mail လိပ်စာ adm.melodyglobal@gmail.com

၈။ မှတ်ပုံတင်ခွင့်ပြုသောဓာတုပစ္စည်းနှင့် နောက်ဆက်တွဲပါအတိုင်းဖြစ်ပါသည်။
 ဆက်စပ်ပစ္စည်းများ

(နေရာရှိဆရာကြီးတစ်ဦးအရ)

၉။ သက်တမ်းကုန်ဆုံးအရ နေ့ရက် ၂၂ - ၄ - ၂၀၂၆




 ဥက္ကဋ္ဌ
 ဗဟိုကြီးကြပ်ရေးအဖွဲ့

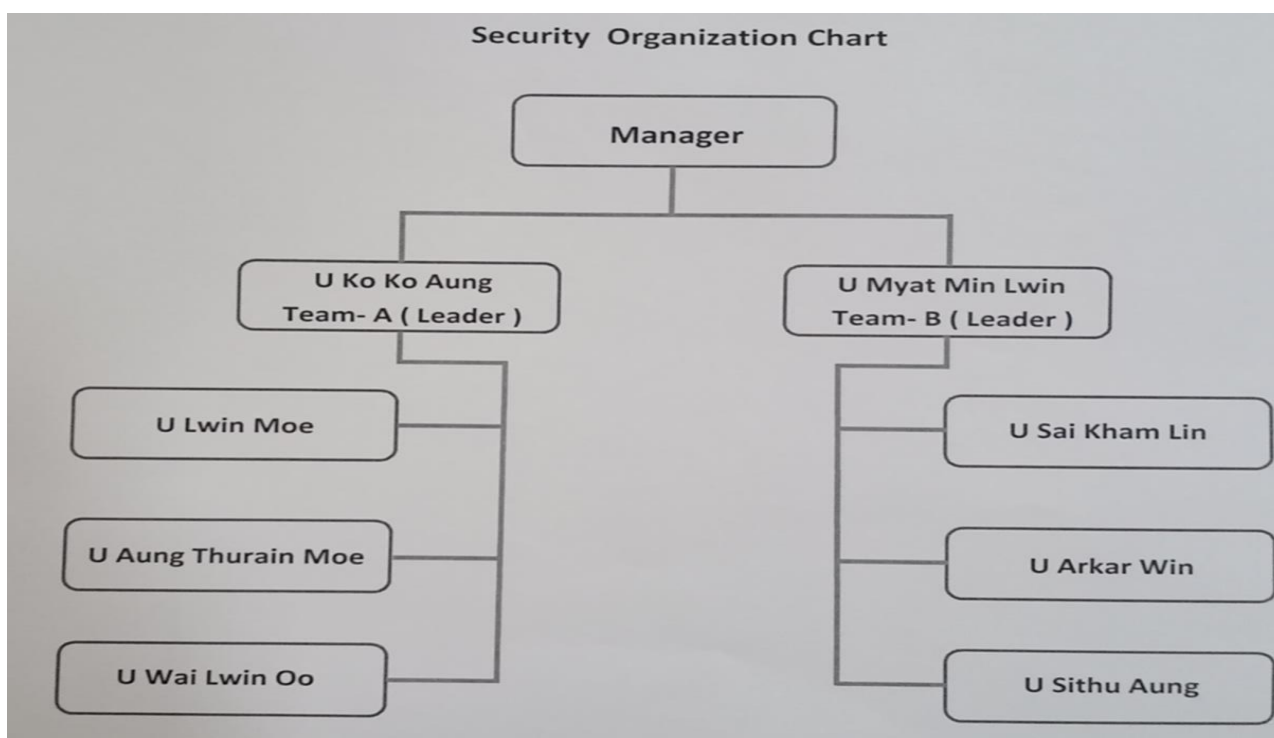
APPENDIX K

Health, Safety and Environment Committees of Melody Global Company Limited

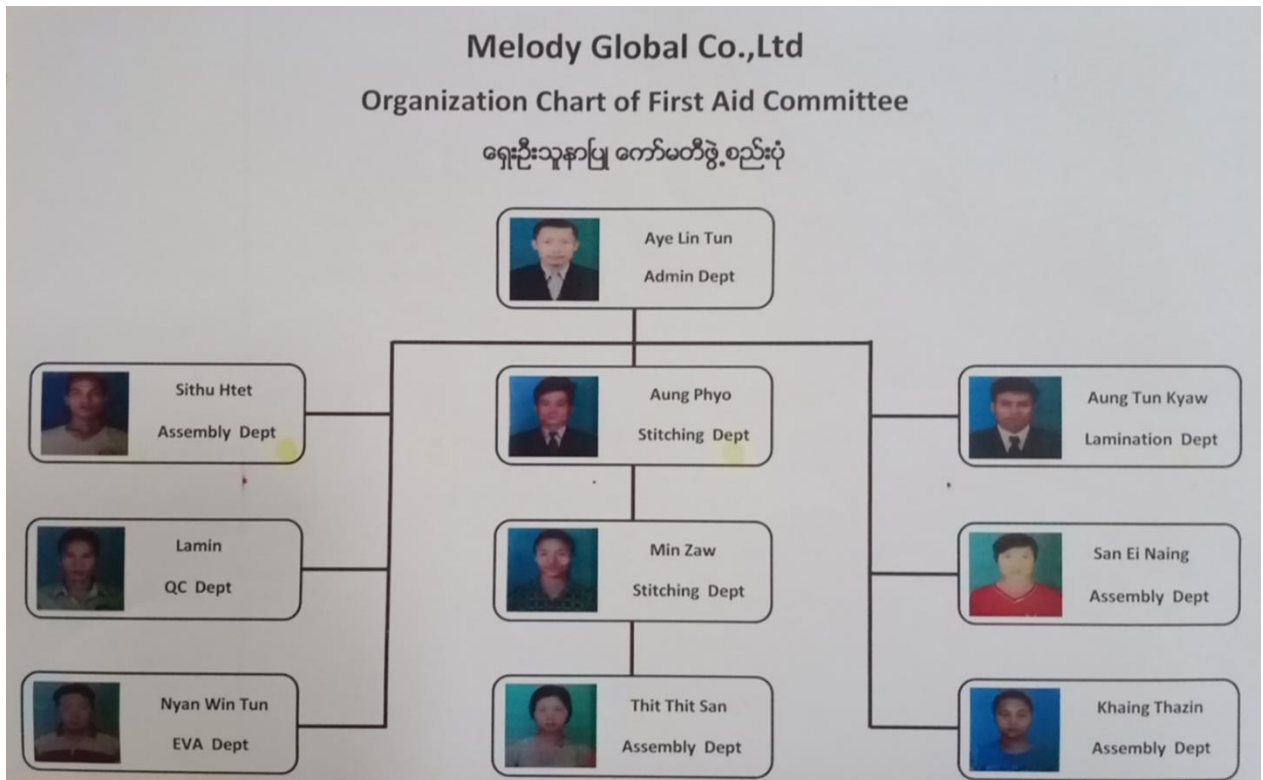
Factory Fire Safety Committee



Factory Security Organization Chart



Factory First Aid Committee Chart



Factory Occupational Health and Safety Committee

Melody Global Co.,Ltd
 စက်ရုံ ဘေးအန္တရာယ်ကင်းရှင်းရေး နှင့် ကျန်းမာရေး ကော်မတီ

စဉ်	အမည်	ရာထူး	အဖွဲ့တာဝန်
၁	Mr, Rao Jiajun	စက်ရုံမှူး	ဥက္ကဋ္ဌ
၂	ဦးအေးလင်းထွန်း	လ/ဝ မန်နေဂျာ	အတွင်းရေးမှူး
၃	ဦးကိုကိုဇော်	Super (EVA)	အဖွဲ့ဝင်
၄	ဦးစိုးသီဟ	Super (Assembly)	အဖွဲ့ဝင်
၅	ဦးသက်နိုင်စိုး	Super (Printing)	အဖွဲ့ဝင်
၆	ဦးစည်သူကောင်းမြတ်	M & E (Electrical)	အဖွဲ့ဝင်
၇	ဦးသီဟချင်း	M & E	အဖွဲ့ဝင်
၈	ဒေါ်သန္တာဦး	Super (Stitching)	အဖွဲ့ဝင်
၉	ဇေယျာမျိုးထိုက်	Super (Assembly)	အဖွဲ့ဝင်
၁၀	ဦးသီဟထွန်း	Super (Cutting)	အဖွဲ့ဝင်
၁၁	ဒေါ်ခင်မိုးစန်း	သန့်ရှင်းရေး	အဖွဲ့ဝင်
၁၂	ဦးမြတ်မင်းလွင်	လုံခြုံရေး	အဖွဲ့ဝင်

APPENDIX L
Corporate Social Responsibility



ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ပြည်ထဲရေးဝန်ကြီးဌာန
မီးသတ်ဦးစီးဌာန
ပဲခူးမြို့နယ်မီးသတ်ဦးစီးမှူးရုံး



ဂုဏ်ပြုမှတ်တမ်းလွှာ

ပဲခူးတိုင်းဒေသကြီး၊ ပဲခူးခရိုင်၊ ပဲခူးမြို့နယ်၊ ဥဿာ(၉)ရပ်ကွက်ရှိ
Melody Global Co., Ltd မိနပ်စက်ရုံမှ အမှတ်(၂)နယ်မြေ
မီးသတ်စခန်းတွင် ကားဂိုဒေါင်ဆောက်လုပ်ရန်အတွက် အလှူငွေ
ကျပ် (၅၀၀၀၀၀) တိတိကို လှူဒါန်းခဲ့ပါသဖြင့် ဤဂုဏ်ပြုမှတ်တမ်း
လွှာဖြင့် မှတ်တမ်းတင်ဂုဏ်ပြု အပ်ပါသည်။

၂၀၂၂ ခုနှစ်၊ စက်တင်ဘာလ ၂၄ ရက်



APPENDIX M Details of Public Consultation Meeting

Attendee List

Melody Global Company Limited					
လူထုတွေ့ဆုံဆွေးနွေးပွဲတက်ရောက်အကြံပြုသူများစာရင်း					
နေ့စွဲ - ၂၀၂၄ ခုနှစ်၊ စက်တင်ဘာလ (၁၇) ရက်					
စဉ်	အမည်	ရာထူး	ဌာန/အဖွဲ့အစည်း	ဆက်သွယ်ရန်နံပါတ်	လက်မှတ်
၁	ဖိုးကျော်မင်း	ရှ်း ဟဲ ဖွဲ့	စစ်ဆေးရေးဌာန	၀၉- [Redacted]	[Signature]
၂	ဒေါ်တင်နီ	အုပ်ချုပ်ရေးဌာန	စစ်ဆေးရေးဌာန	၀၉- [Redacted]	[Signature]
၃	ဒေါ်စန္ဒာစန္ဒာ	စီမံခန့်ခွဲရေးဌာန	စီမံခန့်ခွဲရေးဌာန	၀၉- [Redacted]	[Signature]
၄	ဒေါ်အိအိ	အုပ်ချုပ်ရေးဌာန	စစ်ဆေးရေးဌာန	၀၉- [Redacted]	[Signature]
၅	ဒေါ်ခင်ခင်	ဒီပဲယက်ဌာန	ဒီပဲယက်ဌာန	၀၉- [Redacted]	[Signature]
၆	ဒေါ်အေးအေး	ဒီပဲယက်ဌာန	ဒီပဲယက်ဌာန	၀၉- [Redacted]	[Signature]
၇	ဒေါ်ခင်ခင်	အုပ်ချုပ်ရေးဌာန	စစ်ဆေးရေးဌာန	၀၉- [Redacted]	[Signature]
၈	ဒေါ်အေးအေး	ဒီပဲယက်ဌာန	ဒီပဲယက်ဌာန	၀၉- [Redacted]	[Signature]
၉	ဒေါ်အေးအေး	ဒီပဲယက်ဌာန	ဒီပဲယက်ဌာန	၀၉- [Redacted]	[Signature]
၁၀	ဒေါ်အေးအေး	ဒီပဲယက်ဌာန	ဒီပဲယက်ဌာန	၀၉- [Redacted]	[Signature]

Melody Global Company Limited					
လူထုတွေ့ဆုံဆွေးနွေးပွဲတက်ရောက်အကြံပြုသူများစာရင်း					
နေ့စွဲ - ၂၀၂၄ ခုနှစ်၊ စက်တင်ဘာလ (၁၇) ရက်					
စဉ်	အမည်	ရာထူး	ဌာန/အဖွဲ့အစည်း	ဆက်သွယ်ရန်နံပါတ်	လက်မှတ်
၁၁	ဒေါ်ကျော်ကျော်	Sr. Executive HSE specialist	Totum Myanmar Co., Ltd	၀၉- [Redacted]	[Signature]
၁၂	မတင်လှမြင့်	Admin Officer	Myanmar New Hope Farms Co., Ltd	၀၉- [Redacted]	[Signature]
၁၃	မအိအိ	HR Supervisor	Gurjin Myanmar Co., Ltd	၀၉- [Redacted]	[Signature]
၁၄	မအိအိ	HR Officer	"	၀၉- [Redacted]	[Signature]
၁၅	မအိအိ	Environmental Consultant	"	၀၉- [Redacted]	[Signature]
၁၆	ဒေါ်အေးအေး	Assistant Consultant	E-Guard	၀၉- [Redacted]	[Signature]
၁၇	ဒေါ်အေးအေး	Project Associate	"	၀၉- [Redacted]	[Signature]

Invitation Letter



Melody Global Co., Ltd.

PLOT NO. 26/27/28, BAGO INDUSTRIAL ZONE, BAGO REGION, MYANMAR.
PHONE NO. +95-933 162018 : +95-925 007 2568

Melody Global Co., Ltd. ၏ CMP စနစ်ဖြင့် Footwears and Outdoor Sports Products ထုတ်လုပ်ခြင်းလုပ်ငန်းနှင့် ပတ်သက်၍ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း (Initial Environmental Examination - IEE) အစီရင်ခံစာအတွက် အများပြည်သူနှင့် တွေ့ဆုံဆွေးနွေးပွဲ အစီအစဉ်

- နေ့ရက် ၂၀၂၄ ခုနှစ်၊ စက်တင်ဘာလ (၁၇) ရက် အင်္ဂါနေ့
- အချိန် မနက် (၁၁:၀၀) မှ (၁၂:၁၅) အထိ
- နေရာ Melody Global Co., Ltd. အစည်းအဝေးခန်းမ၊ မြေကွက်အမှတ် (၂၆၊ ၂၇၊ ၂၈)၊
ပဲခူးစက်မှုဇုန်ဧရိယာ၊ ပဲခူးမြို့၊ ပဲခူးတိုင်းဒေသကြီး။

စဉ်	အချိန်	အစီအစဉ်	ပြောကြားမည့်သူ
၁။	၁၁:၀၀- ၁၁:၁၀	အမည်စာရင်းပေးသွင်းခြင်းနှင့် အခမ်းအနားဖွင့်လှစ်ကြောင်း ကြေညာခြင်း	Environmental Consultant
၂။	၁၁:၁၀- ၁၁:၂၀	Melody Global Co., Ltd. ၏ လက်ထောက်မန်နေဂျာမှ စက်ရုံ ၏ ဖွဲ့စည်းပုံနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ လုပ်ဆောင်ထားမှုများကို ရှင်းလင်းတင်ပြခြင်း	U Aye Lin Htun (Assistant Manager of Melody Global Co., Ltd.)
၃။	၁၁:၂၀ - ၁၁:၄၅	Melody Global Company Limited ၏ ကနဦးပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း အစီရင်ခံစာနှင့် ပတ်သက်၍ ရှင်းလင်းတင်ပြခြင်း ၁။ စီမံကိန်းအကြောင်းအရာကို ရှင်းလင်းခြင်း ၂။ Melody Global Co., Ltd. ၏ ကနဦး ပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း (IEE) ၏ လုပ်ငန်းစဉ်များအကြောင်း ရှင်းလင်းခြင်း ၃။ ပတ်ဝန်းကျင်အရည်အသွေး တိုင်းတာမှုရလဒ်များကို ရှင်းလင်းခြင်း ၄။ စီမံကိန်းကြောင့် ပတ်ဝန်းကျင်အပေါ် သက်ရောက်နိုင်မှု များနှင့် လျော့နည်းစေရေး လုပ်ဆောင်ထားမှုများကို ရှင်းလင်းခြင်း ၅။ စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ်ကို ရှင်းလင်းခြင်း	Wint Zar Ni Mg Mg (Environmental Consultant)
၄။	၁၁:၄၅- ၁၂:၁၀	တက်ရောက်လာသူများမှ အထွေထွေ ဆွေးနွေးမေးမြန်း အကြံပြုခြင်း	-
၅။	၁၂:၁၀- ၁၂:၁၅	အခမ်းအနားပြီးဆုံးကြောင်း ကြေညာခြင်း	Environmental Consultant




**IEE for Melody Global Co., Ltd.'s
Manufacturing of Footwears and Outdoor
Sports Products under CMP Basis Project**

E Guard Environmental Services
17th September, 2024



Licensed Consultants



According to MONREC's 2024 Third Party License Certification System, E Guardians are now holding and applying New License.

- 9 Consultants
- 11 Associate Consultants to date
- About 14% of total



Licensed Third-Party Organization



According to MONREC's 2023 Third Party License Certification System,
- E Guard is an A Type Consultant Firm officially approved by ECD.
With 67 Eligible Categories of Projects out of 70
[E Guard Expertises](#)

မို့	အဖွဲ့အစည်းအမည်	လုပ်ငန်းကွဲစဉ်အဖွဲ့အစား	ပိုင်ဆိုင်သူ
၁	E-Guard Environmental Services Co.,Ltd.	အခြေခံအဖွဲ့အဖွဲ့အစား (ms)	EIA/C/OIA/001/2023



၁။ စီမံကိန်းအကြောင်းအရာကို ရှင်းလင်းခြင်း


၂။ Melody Global Co., Ltd. ၏ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း (IEE) ၏ လုပ်ငန်းစဉ်များအကြောင်း ရှင်းလင်းခြင်း

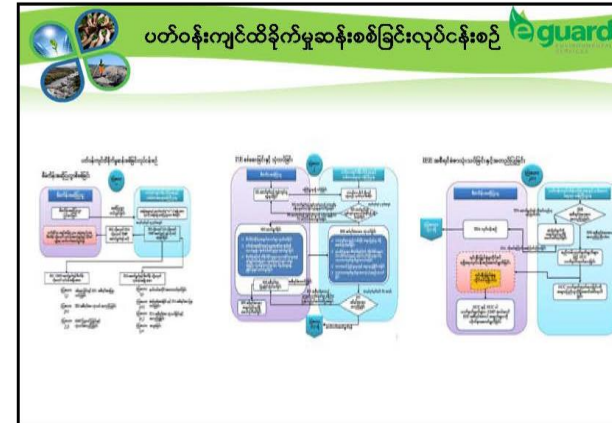
၃။ ပတ်ဝန်းကျင်အရည်အသွေးတိုင်းတာမှုရလဒ်များကို ရှင်းလင်းခြင်း

၄။ စီမံကိန်းကြောင့် ပတ်ဝန်းကျင်အပေါ် သက်ရောက်နိုင်မှုများနှင့် လျော့နည်းစေရေး လုပ်ဆောင်ထားမှုများကို ရှင်းလင်းခြင်း

၅။ စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ်ကို ရှင်းလင်းခြင်း



	
ဝန်ဆောင်မှုအရပ်အကွက်	လက်ရှိဝန်ဆောင်မှုအရပ်အကွက် (ကျား ၁၆၈ ဦးနှင့် မ ၂၆၃ ဦး)
ရေရရှိမှု	စက်ရုံအတွင်းရှိ အိမ်စိမ့်ကွင်း (၃) ကွင်းမှ ရယူသုံးစွဲပါသည်။ (တစ်ရက်လျှင် ဂါလ ၄၀၀ မှ) သောက်ရေအတွက် ရေကွင်းမှ ရေအား ရေသန့်စက်ဖြင့် သန့်စင်၍ သောက်သုံးပါသည်။
စွမ်းအင်ရရှိမှု	လျှပ်စစ်နှင့်စွမ်းအင်ဝန်ကြီးဌာနမှ ရယူသုံးစွဲပါသည်။ ၁၀၀၀ KVA Transformer တစ်လုံး ထားရှိပါသည်။ မီးပျက်စီးမှုအန္တရာယ်ရှိ ၄၃၇ KVA ရှိသော မီးစက် (၂) လုံးရှိပါသည်။



ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာ (IEE) ၏ လုပ်ငန်းစဉ်များအား မိတ်ဆက်ခြင်း

ပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေးတိုင်းတာခြင်း

စက်ရုံပတ်ဝန်းကျင် ဆူညံသံတိုင်းတာမှု



Date and Time	Location	Survey Point	Noise Result	NEQEGs Guideline
16 th August 2023	Stitching department	17°15'3.68"N, 96°27'33.29"E	67.03	70 dBA
	Eva department	17°15'5.97"N, 96°27'36.09"E	71.87	70 dBA

အလက်ဖော်ပြပါတိုင်းတာမှုလုပ်ငန်းများအရ

- စက်ရုံ၏ Stitching department အတွင်း ဆူညံသံတိုင်းတာမှုလုပ်ငန်းသည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အမည်အသေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်အတွင်း ရှိနေသည်ကို တွေ့ရှိရပါသည်။
- စက်ရုံ၏ Eva department အတွင်း ဆူညံသံတိုင်းတာမှုလုပ်ငန်းသည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အမည်အသေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်အောက် အနည်းဆုံးကျော်လွန်နေကြောင်း တွေ့ရှိရပါသည်။ *Eva department တွင် စက်ကြီးများ အစီအစဉ်ပြုလုပ်သည့်အတွက် သတ်မှတ်ချက်အောက် အနည်းဆုံးကျော်လွန်နေကြောင်း သုံးသပ်ရပါသည်။*




လုပ်ငန်းချိန်အပူချိန်နှင့် စိုစွတ်မှုတိုင်းတာခြင်း







Melody Global Company Limited ၏ လုပ်ငန်းခွင်ဖွံ့ဖြိုးမှု စိုစွတ်မှုကို
Eva Department Chemical Room နှင့် Stitching Area တို့တွင် တိုင်းတာခဲ့ရာ
၇၉.၅၈% နှင့် ၈၅% အတွင်း ရှိပြီး အပူချိန်တိုင်းတာမှုမှာ ၃၇°C နှင့် ၃၈°C အကြား ရှိပါသည်။

စက်ရုံပတ်ဝန်းကျင် လေထုတိုင်းတာမှု



Parameters	Survey Point	Observed value	Guideline value	Unit	Organization	Guideline Period
PM ₁₀	Outdoor Area (17°15'1.02"N, 96°27'33.28"E)	25.45	50	µg/m ³	NEQEGs	24 hrs
PM _{2.5}		23.27	25	µg/m ³	NEQEGs	24 hrs
NO _x		29.77	200	µg/m ³	NEQEGs	1 hr
SO _x		1.32	20	µg/m ³	NEQEGs	24 hrs
O ₃		6.08	100	µg/m ³	NEQEGs	8 hrs





လုပ်ငန်းခွင်အတွင်း အလင်းရောင်တိုင်းတာခြင်း



No.	Location	Measured Value (Lux)	Standard *	Remark
1	Warehouse	312	300	Above
2	Cutting Area	1022	1000	Above
3	Stitching Area	631	600	Above
4	QC	1078	600	Above
5	Packing	784	600	Above





စက်ရုံအတွင်း အလင်းရောင်တိုင်းတာမှုမှတ်တမ်းများ

လုပ်ငန်းခွင်အတွင်း ရေအရည်အသွေးတိုင်းတာခြင်း 





သောက်သုံးရေတိုင်းတာမှုရလဒ် စွန့်ပစ်ရေ တိုင်းတာမှုရလဒ်

ပတ်ဝန်းကျင်ဆိုင်ရာ သက်ရောက်မှုဆန်းစစ်ခြင်း

လုပ်ငန်းခွင်အတွင်း ရေအရည်အသွေးတိုင်းတာခြင်း 




မြေအောက်ရေတိုင်းတာမှုရလဒ်

မြေအောက်ရေတိုင်းတာမှု ရလဒ်သည် အရေအောက်ရှိ ပစ္စည်းများ သက်ရောက်မှုများကို ဖော်ပြရန်အတွက် ဖော်ပြပါသည်။ ဤအရည်အသွေး အခြေအနေဖြင့် မြေအောက်ရေအရည်အသွေးနှင့် စက်မှု တွင်းထဲသို့ စွန့်ပစ်သည့်အခါ တိုင်းတာခြင်းသည် မီလီဂရမ်လီတာ (mg/L) နှင့် ဖော်ပြပါသည်။ ဤအရည်အသွေးအခြေအနေဖြင့် မြေအောက်ရေအရည်အသွေး သို့မဟုတ် စက်မှုအခြေအနေဖြင့် တိုင်းတာမှုရလဒ်ကို သိရှိပြီးနောက် ကန့်သတ်ချက်များဖြင့် ဖော်ပြပါသည်။

Scale


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

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

$$\text{Significant Point (SP)} = (\text{Magnitude} + \text{Duration} + \text{Extent}) \times \text{Probability}$$

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

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



ယခု ဖော်ပြထားမှုများသည် ပတ်ဝန်းကျင်ဆိုင်ရာ ထိခိုက်မှုများ လျော့နည်းစေရေးအတွက် စက်ရုံ၏ လက်ရှိ လုပ်ဆောင်ထားမှုများကိုသာ ဖော်ပြထားခြင်းဖြစ်ပြီး ယင်းလုပ်ဆောင်မှု လိုအပ်သည့် အချက်များ (Third-Party ၏ ယင်းအကြံပြုချက်များ) ကို အစီရင်ခံစာတွင် အသေးစိတ် ထည့်သွင်း ဖော်ပြထားပါသည်။

ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြည့်မှုအခြေအနေ

ကဏ္ဍ	ဆန်းစစ်ရမည့် အရာ	ညွှန်းကိန်း	မူရင်း	ကုန်ကြမ်း	တာဝန်ရှိသူ
လေထု	SO2, NO2, O3, PM2.5, PM10	တစ်နစ် ၂ကြိမ်	Outdoor Air Quality (In front of the Office Building)	တစ်နစ်လျှင် ၁၀ ညိန်း ကျပ်	Melody Global Company Limited's Environmental Management Team
ရေအရင်းအမြစ်	pH, Turbidity, Total Solids, Hardness, Chloride, Free Chlorine, Ammonia, Copper, Iron, Lead, Manganese, Zinc	တစ်နစ် ၂ကြိမ်	Ground water Tank (Washing Department)	တစ်နစ်လျှင် ၆ ညိန်း ကျပ်	Melody Global Company Limited's Environmental Management Team
ဆူညံ	ဆူညံသံ (dB)	တစ်နစ် ၂ကြိမ်	Warehouse, Cutting Area, QC Packing	တစ်နစ်လျှင် ၆ ညိန်း ကျပ်	Melody Global Company Limited's Environmental Management Team
အပူအမြေ	အပူအမြေ (°C)	တစ်နစ် ၂ကြိမ်	Warehouse, Cutting Area, Stitching Area, QC Packing	တစ်နစ်လျှင် ၆ ညိန်း ကျပ်	Melody Global Company Limited's Environmental Management Team
ပစ္စည်းစနစ်	ပစ္စည်းစနစ် (Recycle Waste Storage Area)	အပတ်စဉ်	Recycle Waste Storage Area (In front of Warehouse)	တစ်နစ်လျှင် ၆ ညိန်း ကျပ်	Melody Global Company Limited's Environmental Management Team
ပစ္စည်းစနစ်	Domestic Waste Water	တစ်နစ် ၂ကြိမ်	(at the factory drainage)	တစ်နစ်လျှင် ၆ ညိန်း ကျပ်	Melody Global Company Limited's Environmental Management Team
အန္တရာယ်ရှိ ပစ္စည်း	အန္တရာယ်ရှိ ပစ္စည်းများ (At chemical/diesel and oil storage area)	လရက်	(At chemical/diesel and oil storage area)	တစ်နစ်လျှင် ၁၀ ညိန်း ကျပ်	Melody Global Company Limited's Environmental Management Team
စီးပွားရေး	စီးပွားရေး (At the whole factory)	လရက်	(At the whole factory)	တစ်နစ်လျှင် ၁၂ ညိန်း ကျပ်	Melody Global Company Limited's Environmental Management Team
လုပ်ငန်းစဉ် အန္တရာယ်ရှိ ပစ္စည်းများ	lost of property and injuries	အပတ်စဉ်	(At the whole factory)	တစ်နစ်လျှင် ၁၂ ညိန်း ကျပ်	Melody Global Company Limited's Environmental Management Team

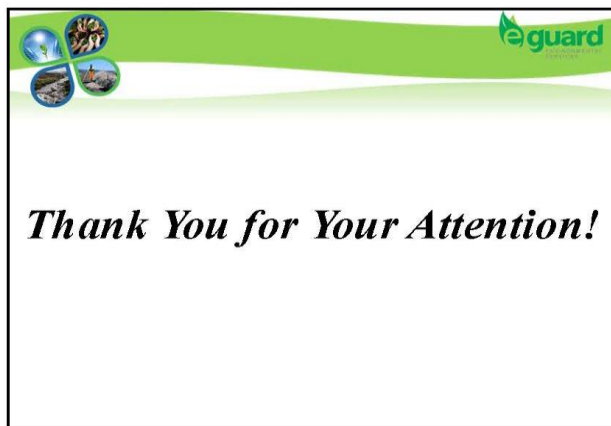


ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြည့်မှုအစီအစဉ်
(Environmental Monitoring Plan)

ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြည့်မှုအခြေအနေ

ကဏ္ဍ	ဆန်းစစ်ရမည့် အရာ	ညွှန်းကိန်း	မူရင်း	ကုန်ကြမ်း	တာဝန်ရှိသူ
လေထု	SO2, NO2, O3, PM2.5, PM10	မှတ်သားပါသည့် ကာလအတွင်း တစ်ကြိမ်	မှတ်သားပါသည့် ကာလအတွင်း	တစ်နစ်လျှင် ၆ ညိန်း ကျပ်	Project Proponent
ဆူညံ	ဆူညံသံ (dB)	မှတ်သားပါသည့် ကာလအတွင်း တစ်ကြိမ်	မှတ်သားပါသည့် ကာလအတွင်း	တစ်နစ်လျှင် ၆ ညိန်း ကျပ်	Project Proponent
ပစ္စည်းစနစ်	အပူအမြေ (°C)	မှတ်သားပါသည့် ကာလအတွင်း တစ်ကြိမ်	မှတ်သားပါသည့် ကာလအတွင်း	တစ်နစ်လျှင် ၆ ညိန်း ကျပ်	Project Proponent
ပစ္စည်းစနစ်	Domestic Waste Water	မှတ်သားပါသည့် ကာလအတွင်း တစ်ကြိမ်	မှတ်သားပါသည့် ကာလအတွင်း	တစ်နစ်လျှင် ၆ ညိန်း ကျပ်	Project Proponent
လုပ်ငန်းစဉ် အန္တရာယ်ရှိ ပစ္စည်းများ	Incident/accident records	မှတ်သားပါသည့် ကာလအတွင်း တစ်ကြိမ်	မှတ်သားပါသည့် ကာလအတွင်း	တစ်နစ်လျှင် ၁၀ ညိန်း ကျပ်	Project Proponent
စီးပွားရေး	စီးပွားရေး (At the whole factory)	မှတ်သားပါသည့် ကာလအတွင်း တစ်ကြိမ်	မှတ်သားပါသည့် ကာလအတွင်း	၁၀ ညိန်း ကျပ်	Project Proponent

10/5/2024



APPENDIX N
List of Commitment

Melody Global Company Limited ၏ CMP စနစ်ဖြင့် footwear and outdoor sports products လုပ်ငန်း လည်ပတ်ဆောင်ရွက်ခြင်းကြောင့် ဖြစ်ပေါ်လာနိုင်သော သဘာဝပတ်ဝန်းကျင်၊ လူမှုဘဝနှင့် ကျန်းမာရေးထိခိုက်မှုများ ရှိခဲ့ပါက လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် တားဆီးရေးအစီအစဉ်များအနေဖြင့် ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း Initial Environmental Examination (IEE) တွင် ပါဝင်ရမည့်အချက်များကို အကောင်အထည်ဖော် စီမံဆောင်ရွက်သွားမည်ဖြစ်ကြောင်း အောက်ဖော်ပြပါ ဇယားဖြင့် အကျဉ်းချုပ် စာရင်းပြုစု ဖော်ပြထားပါသည်။

ကတိကဝတ်၏ အတိုချုပ်အမည်	အမှတ်စဉ်	ကတိကဝတ်အားရှင်းလင်းချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
နိဒါန်း	၁	<p>ရည်ရွယ်ချက်</p> <p>လုပ်ငန်းလုပ်ဆောင်မှုများကြောင့်ဖြစ်ပေါ်လာသည့် ပတ်ဝန်းကျင် ထိခိုက်မှုအပေါ် လျော့ချရေး။</p> <p>ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမည့် အစီအစဉ်အား အကောင်အထည်ဖော်ခြင်း။</p> <p>ရည်မှန်းချက်</p> <p>သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာစီမံခန့်ခွဲမှုစနစ်သည် ပတ်ဝန်းကျင်ဆိုင်ရာ စွမ်းဆောင်ရည်ကို စဉ်ဆက်မပြတ် ပြန်လည်သုံးသပ်ခြင်း၊ စွမ်းဆောင်ရည်မြှင့်တင်ခြင်းဖြင့် အောင်မြင်စေရန် လုပ်ဆောင်ပေးသော စနစ်တစ်ခု ဖြစ်ပါသည်။</p> <p>သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာစွမ်းဆောင်ရည်ကို မြှင့်တင်ရန် ပြန်လည်သုံးသပ်ခြင်းနှင့် အကဲဖြတ်ခြင်း။</p> <p>သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာစီမံခန့်ခွဲမှုစနစ်သည် သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာစွမ်းဆောင်ရည်ကို မြှင့်တင်ရန် စဉ်ဆက်မပြတ် ပံ့ပိုး ပေးသည်။</p>	အခန်း (၁)
	၁.၁	အဆိုပြုလုပ်ငန်း၏ နောက်ခံအကြောင်းအရာ	အခန်းခွဲ (၁.၄)

		<p>Melody Global Company Limited သည် CMP စနစ်ဖြင့် footwears and outdoor sports products လုပ်ငန်းဖြစ်ပြီး နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု လုပ်ငန်းတစ်ခုဖြစ်ပါသည်။</p> <p>မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင် ထောက်ခံချက်အမှတ် (ခွင့်ပြုမိန့်အမှတ် - ၆၁၆/၂၀၁၃)၊ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာန၊ ပဲခူး/ စဆရ (၇၀ (က)/၂၀၁၅) ဖြင့် ကနဦး ပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း Initial Environmental Examination (IEE) ရေးဆွဲရန် သဘောထားပြန်ကြားခြင်း။</p>	
<p>မူဝါဒ၊ ဥပဒေနှင့် အဖွဲ့အစည်း ဆိုင်ရာ မူဘောင်များ</p>	<p>၂</p>	<p>ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ (၂၀၁၂)</p> <p>ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနည်းဥပဒေ (၂၀၁၄)</p> <p>ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း (၂၀၁၅)</p> <p>မြန်မာနိုင်ငံမှချမှတ်ထားသော စက်ရုံနှင့် သက်ဆိုင်သည့် အခြား လိုက်နာဆောင်ရွက်ရမည့် လုပ်ထုံးလုပ်နည်း၊ ဥပဒေ၊ နည်းဥပဒေနှင့် မူဝါဒများ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသတ်မှတ်ချက်နှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များ။</p>	<p>အခန်း (၂)</p>
<p>စီမံကိန်းအကြောင်းအရာဖော်ပြချက်</p>	<p>၃</p>	<p>မြေကွက်အမှတ် (၂၆၊ ၂၇၊ ၂၈) စက်မှုဇုန်ဧရိယာ၊ ပဲခူးတိုင်းဒေသကြီးတွင် တည်ရှိပါသည်။</p>	<p>အခန်းခွဲ (၃.၁)</p>
	<p>၃.၁</p>	<p>စုစုပေါင်းဧရိယာသည် ၅၆၃၆၀.၆၈၈ စတုရန်းမီတာ (၁၃.၉၂ ဧက) ဖြစ်သည်။</p>	<p>အခန်းခွဲ (၃.၁)</p>
	<p>၃.၂</p>	<p>အဆိုပြုလုပ်ငန်း၏ထုတ်ကုန်သည် footwears and outdoor sports products ကို ထုတ်လုပ်သွားမည် ဖြစ်ပါသည်။</p>	<p>အခန်းခွဲ (၃.၂)</p>
	<p>၃.၃</p>	<p>အဆိုပြုလုပ်ငန်းအတွက် လိုအပ်သောအဓိကကုန်ကြမ်းများကို တရုတ်နိုင်ငံမှ တင်သွင်းပါသည်။</p>	<p>အခန်းခွဲ (၃.၃)</p>
	<p>၃.၄</p>	<p>အဆိုပြုလုပ်ငန်းသည် ပြည်ပမှ ၁၀ ဦးနှင့် ပြည်တွင်းလုပ်သား ၄၃၁ ဦးတို့ဖြင့် footwears and outdoor sports products လုပ်ငန်းကို ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။</p>	<p>အခန်းခွဲ (၃.၃)</p>

ပတ်ဝန်းကျင်အရည်အသွေး တိုင်းတာမှု	၄	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသတ်မှတ်ချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များကို အခြေခံလေ့လာတိုင်းတာထားပါသည်။	အခန်း (၄)
လေအရည်အသွေး	၄.၁	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)၏ ထုတ်လွှတ်အခိုးအငွေ့ (Air emissions) လမ်းညွှန် သတ်မှတ်ချက်တို့ဖြင့် နှိုင်းယှဉ်ဖော်ပြ ထားပါသည်။	အခန်းခွဲ (၄.၂)
ဆူညံသံ	၄.၂	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)၏ အမြင့်ဆုံး လက်ခံနိုင်သည့် ဆူညံသံအဆင့် (Noise level) လမ်းညွှန်သတ်မှတ်ချက် စက်မှုဇုန် ဧရိယာတွင် (70 One hour LAeq (dBA)) ဖြင့် နှိုင်းယှဉ်ဖော်ပြထားပါသည်။	အခန်းခွဲ (၄.၂)
အလင်းရောင်ရရှိမှု	၄.၃	Illumination and Limiting Glare Index based on IES Code, 1968 ဖြင့် နှိုင်းယှဉ်ဖော်ပြထားပါသည်။	အခန်းခွဲ (၄.၂)
သောက်သုံးရေအရည်အသွေး	၄.၄	WHO Guideline ဖြင့် နှိုင်းယှဉ်ဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၂.၅)
မြေအောက်ရေအရည်အသွေး	၄.၅	WHO Guideline ဖြင့် နှိုင်းယှဉ်ဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၂.၅)
စွန့်ပစ်ရေအရည်အသွေး	၄.၆	NEQEGs Wastewater Standards ဖြင့် နှိုင်းယှဉ်ဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၂.၅)
ဒေသဆိုင်ရာအချက်အလက်များ	၄.၇	ပဲခူးတိုင်းဒေသကြီး၏ တရားဝင်ပြဋ္ဌာန်းထားသော မြို့နယ်ဆိုင်ရာ အချက်အလက်များမှ ဖော်ပြထားပါသည်။	အခန်းခွဲ (၄.၄)နှင့် (၄.၅)
ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းနှင့် လျှော့ချရေးနည်းလမ်းများ	၅	ဆန်းစစ်ခြင်းနည်းလမ်း သိသာထင်ရှားသောသက်ရောက်မှု = (ပမာဏ + အချိန် + ကျယ်ပြန့်မှု) * ဖြစ်နိုင်ခြေ	အခန်းခွဲ (၅.၁)
	၅.၁	ထိခိုက်မှုဆန်းစစ်ခြင်း	အခန်းခွဲ (၅.၁)

		<p>ကောင်းကျိုး</p> <p>အလုပ်အကိုင်အခွင့်အလမ်းပေါများလာခြင်း၊</p> <p>လမ်းပန်းဆက်သွယ်ရေးကောင်းမွန်လာခြင်း၊ နည်းပညာများ တိုးတက်လာခြင်း။</p> <p>ဆိုးကျိုး</p> <p>သဘာဝပတ်ဝန်းကျင်အရင်းအမြစ်များ၊ ဂေဟစနစ်အရင်းအမြစ်များ၊ လူသားများအပေါ် ထိခိုက်မှုများ၊ အမှိုက်စွန့်ပစ်ခြင်းကြောင့်ထိခိုက်မှုများ။</p>	
ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု	၆	<p>Melody Global Company Limited ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP)အတွက် စက်ရုံစီမံခန့်ခွဲရေးအဖွဲ့၊ အလုပ်သမားများ၊ ဒေသခံလူထုများ၏ အမြင်၊ သက်ဆိုင်ရာ တာဝန်ရှိသူတို့၏ အကြံပြုချက်များနှင့် ကွင်းဆင်းလေ့လာသူများမှ ဆွေးနွေးတိုင်ပင်မှုတို့အပေါ် အခြေခံပြီး ဆောင်ရွက်သွားမည် ဖြစ်သည်။</p> <p>EMP တွင် စက်ရုံအတွင်း ဘေးအန္တရာယ် ကင်းရှင်းရေးစီမံခန့်ခွဲမှုများကို လိုက်နာရန်အတွက် ထည့်သွင်း ဖော်ပြထားပါသည်။</p>	အခန်း (၆)
လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်များ	၆.၁	<p>ကာဗွန်ဒိုင်အောက်ဆိုဒ်လျော့ချရန်အတွက် စက်ရုံအနီးတွင် သစ်ပင်ပန်းပင်များ စိုက်ပျိုးရမည်။</p> <p>အဆိုပြုလုပ်ငန်းဧရိယာအတွင်း စွန့်ပစ်ပစ္စည်းများ မီးရှို့ခြင်းကို မပြုလုပ်ရပါ။</p> <p>လေထုညစ်ညမ်းမှုလျော့ချရန်လုပ်ငန်းသုံးယာဉ်များ၊ မီးစက်များနှင့် လုပ်ငန်းဆိုင်ရာ စက်ပစ္စည်းများကို ပုံမှန် စောင့်ကြည့်စစ်ဆေးရမည်။</p> <p>ပတ်ဝန်းကျင်အပေါ် မီးခိုးထွက်ရှိမှု လျော့နည်းစေရန် မီးခိုးခေါင်းတိုင်များ တပ်ဆင်ရမည်။</p> <p>မော်တော်ယာဉ်များ၊ ရေစုပ်စက်များနှင့် မီးစက်များကို ပုံမှန်ပြုပြင်ထိန်းသိမ်း ထားရှိရမည်။</p>	အခန်းခွဲ (၆)
ဆူညံသံထွက်ရှိမှု	၆.၂	<p>မီးစက်ခန်းများထားရှိခြင်းနှင့် အခြားသက်ဆိုင်သည့် စက်ပစ္စည်းများအား စနစ်တကျ ထိန်းသိမ်းထားရှိရမည်။</p>	အခန်းခွဲ (၆)

		ဝန်ထမ်းများကို သက်ဆိုင်ရာကိစ္စရပ်များနှင့် ပတ်သက်၍ သင့်တော်သော သင်တန်းများ ပေးခြင်း၊ ဆူညံသံ ထွက်ရှိသည့် နေရာများတွင် PPE များကို ဝတ်ဆင်စေရမည်။	
မီးဘေးအန္တရာယ်	၆.၃	မီးအန္တရာယ်အရေးပေါ် အခြေအနေများ အတွက် စက်ရုံအတွင်းတွင် မီးသတ်ဆေးဗူးများ၊ မီးသတ်ရေပိုက်များ၊ မီးသတ်ရေကန် ထားရှိရမည်။ အရေးပေါ်ထွက်ပေါက်များနှင့် စုရပ်နေရာများအား လမ်းညွှန်ပြထားရှိရမည်။ မီးသတ်ရေလှောင်ကန်များ၊ မီးငြိမ်းသတ်ရေး ကိရိယာများကို ပုံမှန်စစ်ဆေးခြင်း၊ စက်ရုံအတွင်း အရေးပေါ် အချက်ပေးစနစ်များ တပ်ဆင်ခြင်း၊ အရေးပေါ်ထွက်ပေါက်များ တစ်လျှောက်တွင် စက်ပစ္စည်းများနှင့် အခြားသော ကုန်ပစ္စည်းများ ပိတ်ဆို့ထားခြင်း မရှိရန် စီစဉ်ထားရမည်။	အခန်းခွဲ (၆)
လုပ်ငန်းခွင်ဘေးကင်းရေးနှင့် ကျန်းမာရေး	၆.၄	ရှေးဦးပြုစုနည်းသင်တန်းများ၊ ဘေးအန္တရာယ် ကင်းရှင်းရေး လေ့ကျင့်မှု၊ မီးငြိမ်းသတ်နည်း သင်တန်းများ၊ အခြား လိုအပ်သော လေ့ကျင့်မှုများ၊ စက်ပစ္စည်းများကို စနစ်တကျ ကိုင်တွယ်မှုများအား သင်တန်းပေးခြင်း၊ လုပ်ငန်းခွင်အတွင်း အလုပ်သမားများ အလင်းရောင် ကောင်းစွာ ရရှိစေရန်နှင့် အမြင်အာရုံမထိခိုက်စေရန် အလင်းရောင်များကို လုံလောက်စွာ ထားရှိခြင်း ဌာန တစ်ခုချင်းစီအတွက် တစ်ကိုယ်ရေသုံးကာကွယ်ရေး ပစ္စည်းများ ထောက်ပံ့ပေးခြင်း၊ လျှပ်စစ် အန္တရာယ်ကာကွယ်ရန်အတွက် လျှပ်စစ် ထိန်းသိမ်းရေး ဝန်ထမ်းများ ထားရှိ၍ ပုံမှန် စစ်ဆေး ကာကွယ်မှုများ ပြုလုပ်စေခြင်း၊ ဝန်ထမ်းများ၏ ကျန်းမာရေးတွက် ဓနာရီအတွင်း လက်ခံနိုင်သည့် အမြင့်ဆုံးဆူညံမှုနှုန်းမှာ ၇၀ dB(A) ဖြစ်ပြီး အသံဆူညံသည့် နေရာများတွင် အသံလုံသည့် နားကြပ်များ၊ နားအကာအကွယ်ပစ္စည်းများ တပ်ဆင်စေခြင်း။	အခန်းခွဲ (၆)
အစိုင်အခဲစွန့်ပစ္စည်းများ	၆.၅	အဆောက်အဦတစ်ခုစီတွင် သီးခြား အမှိုက်ပုံးများ ထားရှိခြင်း၊ အမှိုက်အမျိုးအစား ခွဲခြားစွန့်ပစ်ခြင်း၊ MJT နှင့် ချိတ်ဆက်၍ အမှိုက်စွန့်ပစ်ခြင်း။	အခန်းခွဲ (၆)
စွန့်ပစ်ရေ	၆.၆	စွန့်ပစ်ပစ္စည်းများ သိမ်းဆည်းမှုအား ပုံမှန် စောင့်ကြည့် စစ်ဆေးခြင်း၊ လုပ်ငန်းခွင် ကျန်းမာရေး လုံခြုံမှုနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ လိုအပ်ချက်များနှင့်အညီ စနစ်တကျ စွန့်ပစ်ခြင်း။ စွန့်ပစ်ပစ္စည်းများကို လိုင်စင်ရ အမှိုက်စွန့်ပစ်ရေးဆိုင်ရာ အဖွဲ့အစည်း MJT နှင့် ချိတ်ဆက်၍ စွန့်ပစ်ခြင်း။	အခန်းခွဲ (၆)

<p>စွမ်းအင်</p>	<p>၆.၇</p>	<p>အပူနှင့်အအေးထိန်းရန်အတွက် အချိန် ကန့်သတ်သည့် ကိရိယာနှင့် သာမိုစတပ်များ တပ်ဆင်ခြင်း။</p> <p>စွမ်းအင်ချွေတာသောကိရိယာများတပ်ဆင်ခြင်း။</p> <p>အသုံးမပြုသည့်အချိန်တွင် မီးပိတ်ထားခြင်း၊ စက်ပစ္စည်းများ ရပ်နားထားခြင်း။</p>	<p>အခန်းခွဲ (၆)</p>
<p>အရေးပေါ်တုံ့ပြန်မှုနှင့် ဘေးအန္တရာယ်စီမံခန့်ခွဲမှု</p>	<p>၆.၈</p>	<p>မီးဘေး၊ ငလျင်၊ ရေလွှမ်းမိုးမှု၊ မုန်တိုင်းနှင့် အခြားအရေးပေါ်ကိစ္စများကို ပို၍ သင့်တော်သော စီမံခန့်ခွဲမှုများ ပြုလုပ်ခြင်း။</p> <p>စက်ရုံ၏ ကဏ္ဍတစ်ခုချင်းတိုင်းတွင် မီးငြိမ်းသတ်ရေး ကိရိယာများနှင့် မီးငြိမ်းသတ်ရေး စနစ်များ ထားရှိခြင်းနှင့် စစ်ဆေးခြင်း။</p> <p>မီးဘေးထွက်ပေါက်၊ အရေးပေါ်ထွက်ပေါက် အစရှိသည်တို့ကို အလုပ်သမားများနှင့် တိုင်ပင်ဆွေးနွေးပြီး အသေးစိတ်အကဲဖြတ်ခြင်း၊ မီးငြိမ်းသတ်ခြင်းအား ပုံမှန်လေ့ကျင့်ထားရှိခြင်း။</p> <p>ငလျင်လှုပ်တုံ့အခါ လုံခြုံသည့်နေရာတွင်သာ နေရန်၊ အပြင်မထွက်ခြင်း၊ အပြင်တွင် လုပ်ကိုင်ရသည့် လုပ်သားများမှာ သစ်ပင်၊ အဆောက်အဦများကို သတိထားရန်နှင့် သက်ဆိုင်ရာလုံခြုံရေး သင်တန်းများ ပို့ချခြင်း။</p> <p>မုန်တိုင်းတိုက်ခြင်း၊ ရေကြီးခြင်း၊ မြေပြိုခြင်း တို့ကြောင့် မြေကဲ့သို့သော အခြားအန္တရာယ်ရှိ တိရိစ္ဆာန်များ၏ အန္တရာယ်များကို သတိပေးခြင်း၊ ရှေးဦးသူနာပြုစုခြင်း ကဲ့သို့သော ကျန်းမာရေးဆိုင်ရာ အဖွဲ့အစည်းများ ပြင်ဆင်ထားရှိခြင်း။</p> <p>နီးစပ်ရာဆေးရုံ၊ ဆေးခန်း၊ ရဲစခန်း၊ မီးသတ်ဌာနတို့၏ ဆက်သွယ်နိုင်မည့် ဖုန်းနံပါတ်များအား လူအများ မြင်သာသည့် နေရာများတွင် ထားရှိခြင်း။</p> <p>မီးသတ်အဖွဲ့၊ ကယ်ဆယ်ရေးအဖွဲ့နှင့် လုံခြုံရေး ဟူသော အဖွဲ့များ ထားရှိ၍ လစဉ် လုံခြုံရေးများအတွက် အစည်းအဝေးများ ပြုလုပ်စီမံခန့်ခွဲခြင်း၊ ဘေးအန္တရာယ်ဆိုင်ရာ သင်တန်းများအား သေချာ ပြုလုပ်စေခြင်း။</p>	<p>အခန်းခွဲ (၆)</p>

စောင့်ကြပ်ကြည့်ရှုမှု	၇	အဆိုပြုစီမံကိန်းသည် ပတ်ဝန်းကျင် စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာအား (၆) လ တစ်ကြိမ် ဝန်ကြီးဌာနသို့ တင်ပြရမည်။	အခန်းခွဲ (၆.၉)
လေအရည်အသွေးစစ်ဆေးမှု	၇.၁	PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂ , CO ₂ တစ်နှစ် ၂ ကြိမ် အဆိုပြုလုပ်ငန်းအတွင်း တစ်နှစ်လျှင် ၁၆ သိန်းကျပ်	ဇယား (၆.၁)
စွန့်ပစ်ပစ္စည်းထွက်ရှိမှု	၇.၂	စွန့်ပစ်ပစ္စည်းအစိုင်အခဲ၊ စွန့်ပစ်ရည် အပတ်စဉ် စက်ရုံအတွင်း ပြန်လည်အသုံးပြုရန်ထားရှိသည့် နေရာနှင့် အမှိုက်များ တစ်လ ၅ သောင်းကျပ်	ဇယား (၆.၁)
မီးဘေးအန္တရာယ်စစ်ဆေးမှု	၇.၃	မီးငြိမ်းသတ်ရေးကိရိယာများ လစဉ် စက်ရုံအတွင်း တစ်နှစ်လျှင် ၁၂ သိန်းကျပ်	ဇယား (၆.၁)
စက်ရုံအတွင်း အလင်းရောင်ရရှိမှုအခြေအနေ	၇.၄	အလင်းရောင် လစဉ် ကုန်ပစ္စည်းဖြတ်တောက်ခြင်း၊ အရည်အသွေး စစ်ဆေးခြင်းကဲ့သို့သော လုပ်ငန်းများ လုပ်ကိုင်သည့် နေရာ တစ်နှစ်လျှင် ၄ သိန်းကျပ်	ဇယား (၆.၁)

ဘေးအန္တရာယ်ဆိုင်ရာ သင်တန်းပို့ချခြင်း	၈	လုပ်ငန်းခွင်၌ ကြိုတင်ခန့်မှန်းနိုင်သော အရေးပေါ်အခြေအနေများကို အရေးပေါ်တုံ့ပြန်နိုင်ရန် အစီအစဉ်များ ချမှတ် ဆောင်ရွက်ခြင်း။	အခန်းခွဲ (၆.၁၁)
မကျေနပ်မှုများနှင့် ပြဿနာများကို ဖြေရှင်းခြင်း	၉	စီမံကိန်းအနီးပတ်ဝန်းကျင် နေထိုင်သောသူများ (သို့) သက်ဆိုင်သူများသည် ၎င်းတို့ ခံစားနေရသော ပြဿနာများ၊ သက်ရောက်မှုများနှင့် ပတ်သက်၍ ဖြေရှင်းမှုများ ပြုလုပ်ရန်။ စက်ရုံ၏ တာဝန်ရှိသူများ၊ စက်မှုဇုန် စီမံခန့်ခွဲရေး ကော်မတီ၊ အုပ်ချုပ်ရေးဦးစီးဌာနတို့ဖြင့် ပူးပေါင်း ချိတ်ဆက် လုပ်ဆောင်ခြင်း။ ကော်မတီအဆင့်တွင် အခြားမဖြေရှင်းနိုင်သော ပြဿနာများကို တာဝန်ရှိ အာဏာပိုင်များသို့ တင်ပြပြီး တရားရေးအရ အဆုံးအဖြတ် ပြုလုပ်မည် ဖြစ်သည်။	အခန်းခွဲ (၆.၁၃)
လူထုအကျိုးတူပူးပေါင်းပါဝင်မှု	၁၀	အဆိုပြုလုပ်ငန်းသည် လူထုအကျိုးပြု ပူးပေါင်းပါဝင်မှုကို ကျန်းမာရေး၊ ပညာရေးနှင့် နယ်မြေ ဖွံ့ဖြိုး တိုးတက်ရေးအတွက် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်က ချမှတ်သည့်အတိုင်း ကုမ္ပဏီ၏ အကျိုးအမြတ် ၂ ရာခိုင်နှုန်းအား နှစ်စဉ် ထည့်ဝင်သွားမည်ဖြစ်သည်။	အခန်းခွဲ (၆.၁၂)
အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်း	၁၁	သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်းကို စက်ရုံ၏ အစည်းအဝေးခန်းမ၌ ပြုလုပ်ခဲ့ပါသည်။ တွေ့ဆုံပွဲ အစည်းအဝေးတွင် သက်ဆိုင်ရာ အစိုးရအဖွဲ့ရုံးများနှင့် စက်မှုဇုန်စီမံခန့်ခွဲမှု ကော်မတီ၏ တာဝန်ရှိ ပုဂ္ဂိုလ်များ လိုအပ်သည်များကို အကြံပေးခြင်း၊ စီမံကိန်း၏ အစီရင်ခံစာတွင် လိုအပ်သည်များကို ဖြည့်စွက်ပေးရန် အကြံပြုချက်များ ပေးခဲ့ပါသည်။	အခန်း (၇)
နိဂုံးနှင့်သုံးသပ်ချက်	၁၂	အကျဉ်းချုပ်အားဖြင့် ပြည်ထောင်စု သမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒလမ်းညွှန်ချက်များအတိုင်း ပတ်ဝန်းကျင် ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာ ဆောင်ရွက် ကျင့်သုံးရန် တာဝန်များကို ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်တွင် ရှင်းလင်းဖော်ပြထားပါသည်။	အခန်း (၈)

