

B.C.C JEWELRY MFG. COMPANY LIMITED

INITIAL ENVIRONMENTAL EXAMINATION

MANUFACTURING OF ARTIFICIAL JEWELRY (CMP BASIS)

Prepared by:



MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED

12-May-23



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Commitment

Prepared by; **MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED**

To our knowledge, all information contained in this report is accurate and truthful presentation of all findings as relating to the project.

This report has been prepared by Myanwei with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

Approved by:



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DIRECTOR
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COMPANY LIMITED.

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Commitment of Project Proponent

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED has prepared this project report on Initial Environmental Examination (IEE). B.C.C JEWELRY MFG. COMPANY LIMITED; As proponent of this project, do hereby solemnly affirm and declare that:

- The project particulars in this report are correct and true to the best of my knowledge
- The report is prepared by complying with all Myanmar laws, rules and regulations and Environmental Conservation Law (2012)
- The project will fully comply with the commitment, environmental impact reduction activities, and programs contained in IEE report.
- Legal and other obligations are incorporated in the designs, procedures and project controls,
- The arrangement will be made to prevent environmental and social harm in the decommission phase.

B.C.C JEWELRY MFG. COMPANY LIMITED, Manufacturing of artificial jewelry on CMP basis is located at Block No.37/38, Lot No. 109, Industrial, Dagon Myothit (East) Township, Yangon Region.

Do hereby solemnly affirm and declare that I fully understand and undertake to operate the project strictly in accordance with the said conditions and commitments in this IEE report.



Daw Khaing Thet Mon
Director
B.C.C. Jewelry Mfg. Company Limited

LIST OF CONTENTS

LIST OF CONTENTS	I
LIST OF TABLES	VI
LIST OF FIGURES	VIII
LIST OF APPENDICES	X
LISTS OF ABBREVIATION	XI
အစီရင်ခံစာအကျဉ်းချုပ်	XII
EXECUTIVE SUMMARY	XXX
CHAPTER 1 PROJECT DESCRIPTION	1-1
1.1. INTRODUCTION	1-1
1.2. CONSTRUCTION PHASE	1-1
1.3. OPERATION PHASE	1-1
1.4. LOCATION OF THE PROJECT SITE	1-2
1.4.1. Relative Projects, development activities and Cumulative Impacts	1-2
1.4.2. Site Description	1-3
1.5. PRODUCTION PROCESS	1-8
1.5.1. Casting	1-8
1.5.2. Plaster	1-8
1.5.3. Wax carving	1-8
1.5.4. Molding	1-8
1.5.5. Welding	1-9
1.5.6. Sanding	1-9
1.5.7. Polishing	1-9
1.5.8. Stone Setting	1-9
1.5.9. Electroplating	1-9
1.6. UTILITIES	1-13
1.6.1. Raw Material	1-13
1.6.2. Machinery and Equipment	1-14
1.6.3. Human Resource	1-17
1.6.4. Water Usage and Requirement	1-18
1.6.5. Chemical Requirement	1-19
1.6.6. Electricity and Fuel Requirement	1-21
1.7. FACILITIES	1-23
1.7.1. Chemical Treatment Plant	1-23

1.7.2.	Fire hazards protect facility	1-28
1.7.3.	Liquid waste control facility	1-29
1.7.4.	Solid waste management facility	1-30
1.7.5.	Ventilation System	1-30
1.7.6.	Dormitory facility	1-31
1.8.	GENERATION OF WASTE, EMISSION AND DISTURBANCES.....	1-31
1.8.1.	Industrial Wastes	1-31
1.8.2.	Human wastes	1-32
1.9.	ALTERNATIVE PROJECT SITE	1-32
1.10.	DECOMMISSIONING PHASE	1-33
CHAPTER 2	PROJECT PROPONENT PROFILE	2-1
2.1.	PROJECT INFORMATION	2-1
CHAPTER 3	ENVIRONMENTAL CONSULTANT PROFILE.....	3-1
3.1.	SCOPE OF IEE STUDY	3-1
3.1.1.	The specific objectives of the IEE study are as follows:	3-1
3.2.	IDENTIFICATION OF IEE STUDY TEAM	3-1
CHAPTER 4	POLICY, LEGAL AND INSTITUTIONAL FRAME WORK	4-1
4.1.	MYANMAR REGULATORY FRAMEWORK	4-1
4.1.1.	Laws and Regulations Related to Environmental and Social Considerations.....	4-1
4.2.	AUTHORIZED INSTITUTIONS AND RECOMMENDATIONS.....	4-41
4.3.	INTERNATIONAL GUIDELINES	4-41
4.4.	INTERNATIONAL AND REGIONAL TREATIES	4-42
4.5.	COMMITMENT OF B.C.C JEWELRY MFG COMPANY LIMITED	4-44
CHAPTER 5	SURROUNDING ENVIRONMENT	5-1
5.1.	METHODOLOGY FOR DATA COLLECTION AND ANALYSIS	5-1
5.2.	ENVIRONMENTAL BASELINE STUDY.....	5-1
5.2.1.	Indoor Temperature and Humidity.....	5-2
5.2.2.	Air Quality.....	5-3
5.2.3.	Noise	5-6
5.2.4.	Odor Intensity.....	5-7
5.2.5.	Light.....	5-8
5.2.6.	Wastewater Testing	5-9
5.2.7.	Drinking water Testing	5-10
5.3.	PHYSICAL COMPONENT	5-11
5.3.1.	Topography	5-11

5.3.2.	Geology	5-11
5.3.3.	Tectonics	5-12
5.3.4.	Soil	5-13
5.3.5.	Hydrogeology	5-14
5.3.6.	Climate and Meteorology	5-14
5.4.	BIOLOGICAL COMPONENT	5-19
5.5.	SOCIO-ECONOMIC COMPONENT	5-20
5.5.1.	Population	5-20
5.5.2.	Religion	5-21
5.5.3.	Local Economy	5-21
5.5.4.	Public Infrastructure and Access	5-22
5.6.	CULTURAL AND VISUAL COMPONENTS	5-24
CHAPTER 6	IMPACT ASSESSMENT AND MITIGATION MEASURE.....	6-1
6.1.	METHODOLOGY FOR THE ASSESSMENTS.....	6-1
6.1.1.	Positive Impact.....	6-2
6.2.	IMPACT IDENTIFICATIONS.....	6-2
6.3.	POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION AND DECOMMISSIONING PHASE	6-2
6.3.1.	Negative Impact	6-2
6.4.	POTENTIAL ENVIRONMENTAL IMPACTS DURING OPERATION PHASE	6-3
6.5.	PROJECT ACTIVITIES AND ITS SIGNIFICANT IMPACTS	6-4
6.6.	IMPACTS, MITIGATION MEASURE DURING OPERATION.....	6-10
6.7.	IMPACT ON ENVIRONMENTAL RESOURCE	6-10
6.7.2.	Energy Consumption and Related CO ₂ (GNG) emission	6-11
6.7.3.	Mitigation Measures for Air Quality Impact	6-12
6.7.4.	Impact of Noise	6-12
6.7.5.	Impact on Water Quality	6-13
6.7.6.	Mitigation Measures for Water Consumption and Contamination	6-13
6.7.7.	Impact on Soil Quality	6-14
6.8.	IMPACT ON ECOLOGICAL RESOURCE.....	6-14
6.9.	IMPACT ON HUMAN	6-14
6.9.1.	Socio-economic Benefit	6-14
6.9.2.	Occupational Health and Safety	6-14
6.9.3.	Mitigation Measures for Occupational Health and Safety	6-15
6.9.4.	Material Storage guidelines	6-15

6.9.5. First Aid Guidelines and Facilities	6-15
6.10. IMPACT OF WASTE DISPOSAL	6-16
6.10.1. Solid Waste	6-16
6.10.2. Liquid Waste	6-16
6.10.3. Mitigation Measures for Waste Disposal	6-16
CHAPTER 7 ENVIRONMENTAL MANAGEMENT PLAN	7-18
7.1. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN	7-18
7.1.1. Institutional Requirement	7-19
7.2. RESPONSIBILITIES OF THE ENVIRONMENTAL MANAGEMENT PLAN	7-19
7.2.1. Structure and Responsibilities for the EMP Development and Implementation ..	7-20
7.3. ENVIRONMENTAL MANAGEMENT TEAM OF B.C.C JEWELRY MFG. COMPANY LIMITED.....	7-21
7.4. ENVIRONMENTAL MANAGEMENT PROCESS	7-22
7.4.1. Air Pollution/Dust Management Plan.....	7-22
7.4.2. Water Consumption Management Plan	7-23
7.4.3. Odor Management Plan.....	7-23
7.4.4. Wastewater Management Plan	7-23
7.4.5. Noise Management Plan	7-24
7.4.6. Solid Waste Management Plan	7-24
7.4.7. Fire Management Plan	7-25
7.4.8. Occupational Safety and Health Management Plan	7-25
7.4.9. Energy Management Plan	7-26
7.4.10. Emergency Response and Disaster Management Plan	7-26
7.5. ENVIRONMENTAL MONITORING SCHEDULE AND REPORTING.....	7-28
7.6. BUDGET PLAN FOR ENVIRONMENTAL MANAGEMENT AND MONITORING	7-30
7.7. CAPACITY BUILDING AND TRAINING PLAN	7-31
7.7.1. Assignment of responsibilities	7-31
7.7.2. Emergency procedures.....	7-31
7.7.3. Training for Emergencies.....	7-31
7.7.4. Fire Prevention and Protection	7-32
7.7.5. Fire Protection Equipment	7-32
7.7.6. Fire Safety and Evacuation Plan	7-33
7.7.7. Site Fire Control	7-34
7.7.8. Employee Information and Training	7-34

7.7.9. Health and Safety Training Plan for Worker.....	7-35
7.8. GRIEVANCE REDRESS MECHANISM (GRM)	7-35
7.9. CORPORATE SOCIAL RESPONSIBILITY (CSR) PLAN	7-36
7.9.1. Education Sector.....	7-37
7.9.2. Health Sector	7-37
7.9.3. Religion Sector.....	7-37
7.9.4. Environmental Sector	7-37
7.9.5. Social Sector	7-37
CHAPTER 8 PUBLIC CONSULTATION AND DISCLOSURE	8-1
8.1. PUBLIC CONSULTATION PROCESS.....	8-1
8.2. PUBLIC CONSULTATION MEETING	8-1
8.3. RECOMMEND SUGGESTION AND COMMENT	8-2
CHAPTER 9 CONCLUSION AND RECOMMENDATION	9-1
9.1. CONCLUSION.....	9-1
9.2. RECOMMENDATION.....	9-2
9.3. REFERENCES	9-2

LIST OF TABLES

Table 1-1	B.C.C Jewelry MFG. Company Limited's Project Life Span	1-2
Table 1-2	Relevant Mitigation Measures for Cumulative Impacts.....	1-3
Table 1-3	Annual Production Rate.....	1-12
Table 1-4	List of Production input needed (Import)	1-13
Table 1-5	List of Production input needed (Local).....	1-13
Table 1-6	List of Machinery and Equipment to be imported from China.....	1-15
Table 1-7	List of Machinery to be Purchase From Local.....	1-16
Table 1-8	Employment List of B.C.C JEWELRY COMPANY LIMITED (Local)	1-17
Table 1-9	Employment List of B.C.C JEWELRY COMPANY LIMITED (Foreign)	1-18
Table 1-10	Daily Chemical Usage of B.C.C JEWELRY MFG. COMPANY LIMITED	1-20
Table 1-11	Annual Electricity Requirement	1-22
Table 1-12	Waste generation and waste amount.....	1-32
Table 2-1	Information of Investor	2-1
Table 2-2	Shareholder and Director List.....	2-1
Table 2-3	Salient features of the project.....	2-2
Table 3-1	Members of IEE Study Team	3-1
Table 4-1	List of Myanmar's Law relating to environmental management	4-1
Table 4-2	International and Regional Treaties to Which Myanmar is a Party.....	4-42
Table 5-1	Relative Humidity and Temperature Measure at Proposed Project	5-2
Table 5-2	Observed Air Quality Results	5-3
Table 5-3	Noise Level Measurement Result.....	5-6
Table 5-4	Odor Intensity Measurement Result.....	5-8
Table 5-5	Recommended illumination and limiting glare index based on IES Code, 1968...	5-8
Table 5-6	Result of Light Measurement in B.C.C JEWELRY MFG COMPANY LIMITED	5-9
Table 5-7	Coordinated Point of Final Treated Water Collection Point	5-10
Table 5-8	Final Treated Water Quality Laboratory Results.....	5-10
Table 5-9	Coordinated Point of Drinking water Collection Point	5-11
Table 5-10	Drinking water Quality Laboratory Results.....	5-11
Table 5-11	Population and number of conventional households by sex by ward and village tract; Dagon Myothit (East) Township	5-20

Table 5-12	Conventaional households by availability of transportation items by urban/rural....5-22
Table 5-13	List of major school in Dagon Myothit (East) Township 5-23
Table 5-14	Common Diseases in the Dagon Myothit (East) Township 5-23
Table 5-15	Lists of hospital in the Dagon Myothit (East) Township 5-23
Table 6-1	Impact assessment parameters and its scale6-1
Table 6-2	Evaluation and Perditiion of Significant Impacts and mitigation measure for Operation Phase6-4
Table 6-3	Category of GHGs Assessment 6-12
Table 6-4	CO ₂ Emission by the Uses of Fuel 6-12
Table 6-5	Permissible exposure of noise limits 6-13
Table 7-1	Environmental Monitoring Schedule for B.C.C JEWELRY MFG. COMPANY LIMITED 7-28
Table 7-2	Cost estimation for EMP implementation 7-30
Table 7-3	American National Fire Fighting Association (NFFA) Standards..... 7-33
Table 7-4	Training Plan Used in B.C.C JEWELRY MFG. COMPANY LIMITED 7-35
Table 7-5	CSR plan at B.C.C JEWELRY MFG COMPANY LIMITED 7-37
Table 8-1	Schedule of Public Consultation Meeting.....8-1
Table 8-2	Summary of Public Consultation Meeting8-1

LIST OF FIGURES

Figure 1-1	Location Map of B.C.C JEWELRY MFG. COMPANY LIMITED	1-4
Figure 1-2	Factory Aerial Photo	1-5
Figure 1-3	Future Project Layout Photo	1-6
Figure 1-4	Adjacent Location Map of Proposed Project	1-7
Figure 1-5	Production Photos of B.C.C JEWELRY MFG. COMPANY LIMITED	1-10
Figure 1-6	Production Process Diagram	1-11
Figure 1-7	Products Photo	1-12
Figure 1-8	Synthetic Stone Photos	1-14
Figure 1-9	Various Shapes of Synthetic Gems	1-14
Figure 1-10	Machinery Photos	1-17
Figure 1-11	Water facilities of B.C.C JEWELRY MFG COMPANY LIMITED	1-19
Figure 1-12	Electricity Facilities at B.C.C Jewelry MFG Company Limited Factory	1-22
Figure 1-13	Chemical Treatment Plant Photos	1-25
Figure 1-14	Workshop Heavy Metal Wasterwater Flow Chart	1-26
Figure 1-15	Comprehensive Wastewater Flow Chart	1-27
Figure 1-16	Hydrogen-Containing Wastewater Flow Chart	1-28
Figure 1-17	Firefighting system	1-29
Figure 1-18	Drainage and Toilet facility	1-30
Figure 1-19	Waste storage photo	1-30
Figure 1-20	Ventilation system of B.C.C JEWELRY MFG COMPANY LIMITED	1-31
Figure 1-21	Kitchen and dormitory	1-31
Figure 2-1	Organization Chart of B.C.C JEWELRY MFG.COMPANY LIMITED	2-2
Figure 5-1	Environmental Baseline Study Points	5-2
Figure 5-2	Temperature and Humidity Measurement in Operation Area	5-3
Figure 5-3	Air Quality Result Graphs	5-6
Figure 5-4	Air Quality Measurement Photos	5-6
Figure 5-5	Noise Level Result Graph	5-7
Figure 5-6	Sound level measurement photo	5-7
Figure 5-7	Odor intensity graph	5-8
Figure 5-8	Light Quantity Measurement Photo	5-9

Figure 5-9	Geological Map of Yangon Region.....	5-12
Figure 5-10	Soil map of Yangon.....	5-13
Figure 5-11	Climate Summary of Yangon Region	5-15
Figure 5-12	Average Temperature of Yangon Region	5-15
Figure 5-13	Cloud Cover Categories	5-16
Figure 5-14	Average Monthly Rainfall at Yangon Region	5-17
Figure 5-15	Humidity of Yangon.....	5-18
Figure 5-16	Average Wind Speed in Yangon	5-19
Figure 5-17	Average Climate of Yangon Region	5-19
Figure 5-18	Percentage of population by religion, Union and Yangon Region	5-21
Figure 6-1	Potential negative impact affect from proposed project.....	6-3
Figure 6-3	Solid waste management at B.C.C JEWELRY MFG. COMPANY LIMITED	6-17
Figure 7-1	Continuous Improvement Circle	7-18
Figure 7-2	Organization Structure of Environmental Management Plan.....	7-21
Figure 7-3	Grievance Redress Mechanism flow diagram.....	7-36

LIST OF APPENDICES

APPENDIX A YRIC Endorsement of B.C.C JEWELRY MFG. COMPANY LIMITED

APPENDIX B Amendment of Endorsement

APPENDIX C Consultant Registration Certificate

APPENDIX D Environmental Monitoring Quality Result

APPENDIX E Fire Safety Certificate

APPENDIX F Fire Protection Plan

APPENDIX G Environmental Control Plan

APPENDIX H Factory Social and Welfare Plan

APPENDIX I Power Point Presentation Slides

APPENDIX J Public Consultation Meeting Attendent List

APPENDIX K List of Commitment

Lists of Abbreviation

- | | | | |
|--------------------------|--|---------------------|--|
| 1. IEE | = Initial Environmental Examination | 30. VOC | = Volatile Organic Compound |
| 2. EMP | = Environmental Management Plan | 31. CO ₂ | = Carbon Dioxide |
| 3. EIA | = Environmental Impact Assessment | 32. TSS | = Total Suspended Solids |
| 4. MFG. | = Manufacturing | 33. TDS | = Total Dissolved Solids |
| 5. CMP | = Cut, Make, Packing | 34. ppm | = Part Per Million |
| 6. QC | = Quality Control | 35. NG | = No Guideline |
| 7. kVA | = Kilo-Volt-Ampere | 36. WHO | = World Health Organization |
| 8. kWh | = Kilo Watt Hour | 37. EQEG | = National Environmental Quality (Emission) Guidelines |
| 9. YCDC | = Yangon City Development Committee | 38. dB (A) | = Decibel Unit |
| 10. kg | = Kilogram | 39. Lux | = unit of illuminance |
| 11. YRIC | = Yangon Region Investment Committee | 40. BOD | = Biological Oxygen Demand |
| 12. MONREC | = Ministry of Natural Resources and Environmental Conservation | 41. COD | = Chemical Oxygen Demand |
| 13. USD | = American Dollar | 42. RO | = Reverse Osmosis |
| 14. EMP | = Environmental Management Plan | 43. km | = Kilo Meter |
| 15. MOECF | = Ministry of Environmental Conservation and Forestry | 44. YESB | = Yangon City Electricity Supply Board |
| 16. ECD | = Environmental Conservation Department | 45. YCDC | = Yangon City Development Committee |
| 17. ECC | = Environmental Compliance Certificate | 46. PPEs | = Personal Protective Equipment |
| 18. IFC | = International Finance Corporation | 47. AQI | = Air Quality Index |
| 19. CSR | = Corporate Social Responsibility | 48. GHG | = Green House Gases |
| 20. sqm | = Square Meter | 49. Kt | = Kilo Ton |
| 21. °C | = Degree Celsius | 50. MT | = Metric Ton |
| 22. °F | = Degree Fahrenheit | 51. OSHA | = Occupational Safety and Health Administration |
| 23. % | = Percentage | 52. HSE | = Health, Safety and Environment |
| 24. AQM | = Air Quality Monitoring | 53. EMS | = Environmental Management System |
| 25. PM _{10,2.5} | = Particulate Matter | 54. EMoP | = Environmental Monitoring Plan |
| 26. CO | = Carbon Monoxide | 55. HR | = Human Resource |
| 27. O ₃ | = Ozone | 56. MSDS | = Material Safety Data Sheets |
| 28. SO ₂ | = Sulfur Dioxide | | |
| 29. NO ₂ | = Nitrogen Dioxide | | |

အစီရင်ခံစာအကျဉ်းချုပ်

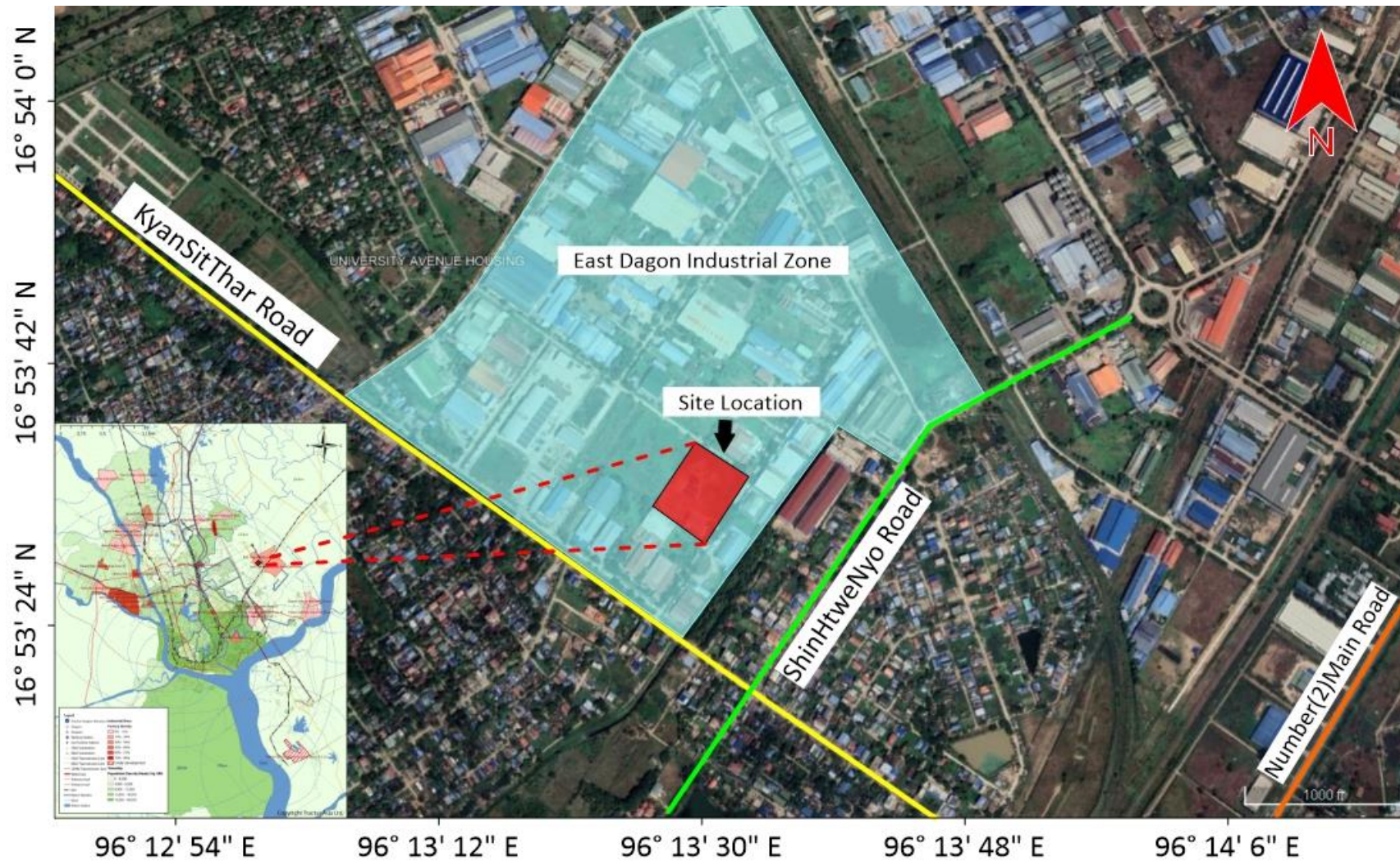
၁။ စီမံကိန်းအကြောင်းအရာဖော်ပြချက်

ဤအစီရင်ခံစာသည် CMP စနစ်ဖြင့် အမျိုးမျိုးသော artificial လက်ဝတ်တန်ဆာများ ထုတ်လုပ်သည့် B.C.C JEWELRY MFG. COMPANY LIMITED ၏ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာမှ တွေ့ရှိချက်များအား ဖော်ပြထားခြင်းဖြစ်ပါသည်။ ဤအစီရင်ခံစာ၏ အဓိကရည်ရွယ်ချက်မှာ စီမံကိန်းကြောင့် ဖြစ်ပေါ်နိုင်သော ဆိုးကျိုးများ အား လျော့နည်းစေရန်အတွက် ထိရောက်သော ဆောင်ရွက်ချက်များနှင့်အတူ စီမံကိန်းအကောင်အထည်ဖော်ခြင်း ကြောင့် ပတ်ဝန်းကျင်အပေါ် အဓိကအကျိုးသက်ရောက်နိုင်မှုများကို ဖော်ထုတ်ရန်အတွက် ဖြစ်ပါသည်။

အဆိုပြုစီမံကိန်းလုပ်ငန်းသည် ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာ ရေးဆွဲတင်ပြရမည်ဖြစ်ကြောင်း ၂၀၂၀ ခုနှစ်၊ ဩဂုတ်လ၊ ၁၄ ရက် ရက်စွဲပါစာအမှတ်၊ ရက-၁/၃-၄ (အီးအိုင်အေ) (၂၃၂၆/၂၀၂၀) ဖြင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ရန်ကုန်တိုင်းဒေသကြီးမှ သဘောထားမှတ်ချက် ရရှိပြီးဖြစ်ပါသည်။ ထို့ကြောင့် B.C.C JEWELRY MFG. COMPANY LIMITED မှ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာအတွက် Myanwei Environmental Solutions Company Limited အား တာဝန်ယူရေးဆွဲစေခဲ့ပါသည်။

အဆိုပြုစီမံကိန်းလုပ်ငန်းသည် မြောက်လတ္တီကျု ၁၆°၅၃'၂၈.၅၇" နှင့် အရှေ့လောင်ဂျီကျု ၉၆°၁၃'၃၂.၂၆"၊ မြေကွက်အမှတ်-(၃၇/၃၈)၊ မြေတိုင်းရပ်ကွက်အမှတ် (၁၀၉)၊ ဒဂုံမြို့သစ်အရှေ့ပိုင်းမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် တည်ရှိပါသည်။ မြေဧရိယာစုစုပေါင်း ၄.၅၉၃ ဧက ကျယ်ဝန်းပါသည်။ အဆိုပြုစီမံကိန်း၏ တည်ဆောက်ရေးလုပ်ငန်း များကို ၂၀၂၂ ခုနှစ်၊ ဩဂုတ်လတွင် စတင်တည်ဆောက်ခဲ့ပြီး စက်ရုံအတွက် လိုအပ်သော စက်ပစ္စည်းများတပ်ဆင်ရန် အတွက် ဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်းသည် နိုင်ငံခြားသားရယ်ယာ (၇၅%)၊ မြန်မာနိုင်ငံသားရယ်ယာ (၂၅%)ဖြင့် ဖက်စက်လုပ်ငန်းအနေဖြင့် ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်း၏ ရင်းနှီးမြှုပ်နှံမှုတန်ဖိုးမှာ အမေရိကန် ဒေါ်လာ (၃)သန်းဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်းအား ၂၀၂၃ ခုနှစ်မှ ၂၀၅၂ခုနှစ်အထိ ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

အဆိုပြုစီမံကိန်းသည် အရှေ့ဒဂုံစက်မှုဇုန်၊ ဒဂုံမြို့သစ်အရှေ့ပိုင်းမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် တည်ရှိ သည့်အတွက် အခြားရွေးချယ်စရာနေရာများမရှိဘဲ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာ စတင်ပြုစုသည့် အချိန်တွင် တည်ဆောက်ရေးလုပ်ငန်းများမှာ ပြီးစီးလုနီးပါး ဖြစ်နေပြီး ဖြစ်ပါသည်။



B.C.C JEWELRY MFG. COMPANY LIMITED၏ တည်နေရာပြမြေပုံ



စက်ရုံ၏ ကောင်းကင်မြေပုံ



စက်ရုံ၏ အနီးပတ်ဝန်းကျင်ပြမြေပုံ

အဆိုပြုစီမံကိန်းသည် CMP စနစ်ဖြင့် artificial လက်ဝတ်တန်ဆာများ ထုတ်လုပ်ရန်အတွက် ဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်းလုပ်ငန်း၏ လုပ်ငန်းလည်ပတ်ဆောင်ရွက်ရန်အတွက် ဝန်ထမ်းအင်အား ၃၈၅ဦး လိုအပ်မည်ဖြစ်ပြီး ၃၈၀ ဦးမှာ ဒေသခံဝန်ထမ်းများခန့်အပ်ဆောင်ရွက်သွားမည်ဖြစ်ပြီး ၅ဦးမှာ စိတ်အားထက်သန်မှု၊ အတွေ့အကြုံ၊ ပူးပေါင်းဆောင်ရွက်နိုင်စွမ်းများဖြင့် စီမံခန့်ခွဲသွားမည့် နိုင်ငံခြားသားဝန်ထမ်းများဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်း၏ အဓိကကုန်ကြမ်းများမှာ sliver/semi-manufactured silver 925, brass, synthetic stone, plating, silver accessory တို့ဖြစ်ပါသည်။ လုပ်ငန်းစတင်လည်ပတ်သည့် ပထမနှစ်မှ နှစ်၃၀အတွင်း တစ်နှစ်လျှင် ပျမ်းမျှ လက်ဝတ်ရတနာ ၄,၅၀၀,၀၀၀ မှ ၁၄,၁၄၁,၃၃၄ အထိ ထုတ်လုပ်သွားမည်ဖြစ်ပါသည်။ ကုန်ကြမ်းပစ္စည်းများအား ပြည်တွင်း၊ တရုတ်နိုင်ငံ နှင့် ဟောင်ကောင်နိုင်ငံများမှ ဝယ်ယူတင်သွင်းသွားမည်ဖြစ်ပြီး ထုတ်လုပ်ပြီး ကုန်ချောများအား အမေရိကန်နိုင်ငံသို့ တင်ပို့ရောင်းချသွားမည် ဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်း၏ ရင်းနှီးမြှုပ်နှံမှုကာလမှာ နှစ်၃၀ ဖြစ်ပြီး စီမံကိန်း၏ YRIC အဆိုပြုချက်အတိုင်း စီမံကိန်းအား ပိတ်သိမ်းသွားမည် ဖြစ်ပါသည်။

အမှာစာများရရှိပြီးနောက် ပထမဆုံးအဆင့်မှာ ပုံစံဖော်ခြင်းအဆင့်ဖြစ်ပါသည်။ ဒုတိယအဆင့်မှာ ကျွမ်းကျင်မှု လိုအပ်ပြီး ကျောက်စီခြင်းအဆင့်ဖြစ်ပါသည်။ ၎င်းအဆင့်ပြီးနောက် အရောင်တင်ခြင်းအဆင့်ဖြစ်ပြီး စက်ပိုင်းဆိုင်ရာ တစ်ဝက် လုပ်သားအင်အား တစ်ဝက် ဆောင်ရွက်ရသော အဆင့်ဖြစ်ပါသည်။ ထို့နောက်မည်သည့် ကျောက်မျက် ရတနာ၊ လက်ဝတ်ရတနာဖြစ်ပါစေ လျှပ်စစ်ဖြင့် ဓာတုဓာတ်ပြုသည့်အရည်များအတွင်း စိမ်သည့်အဆင့်အား ပြုလုပ်ရ မည် ဖြစ်ပါသည်။ ၎င်းအဆင့်များ ပြီးဆုံးပြီးနောက် အရည်အသွေးစစ်ဆေးခြင်းဌာနမှ စစ်ဆေးပြီး ထုတ်ပိုး၍ လုပ်ငန်း အပ်နှံသူထံ ပေးပို့ရမည် ဖြစ်ပါသည်။



လက်ကောက်



နားဆွဲ



လက်စွပ်

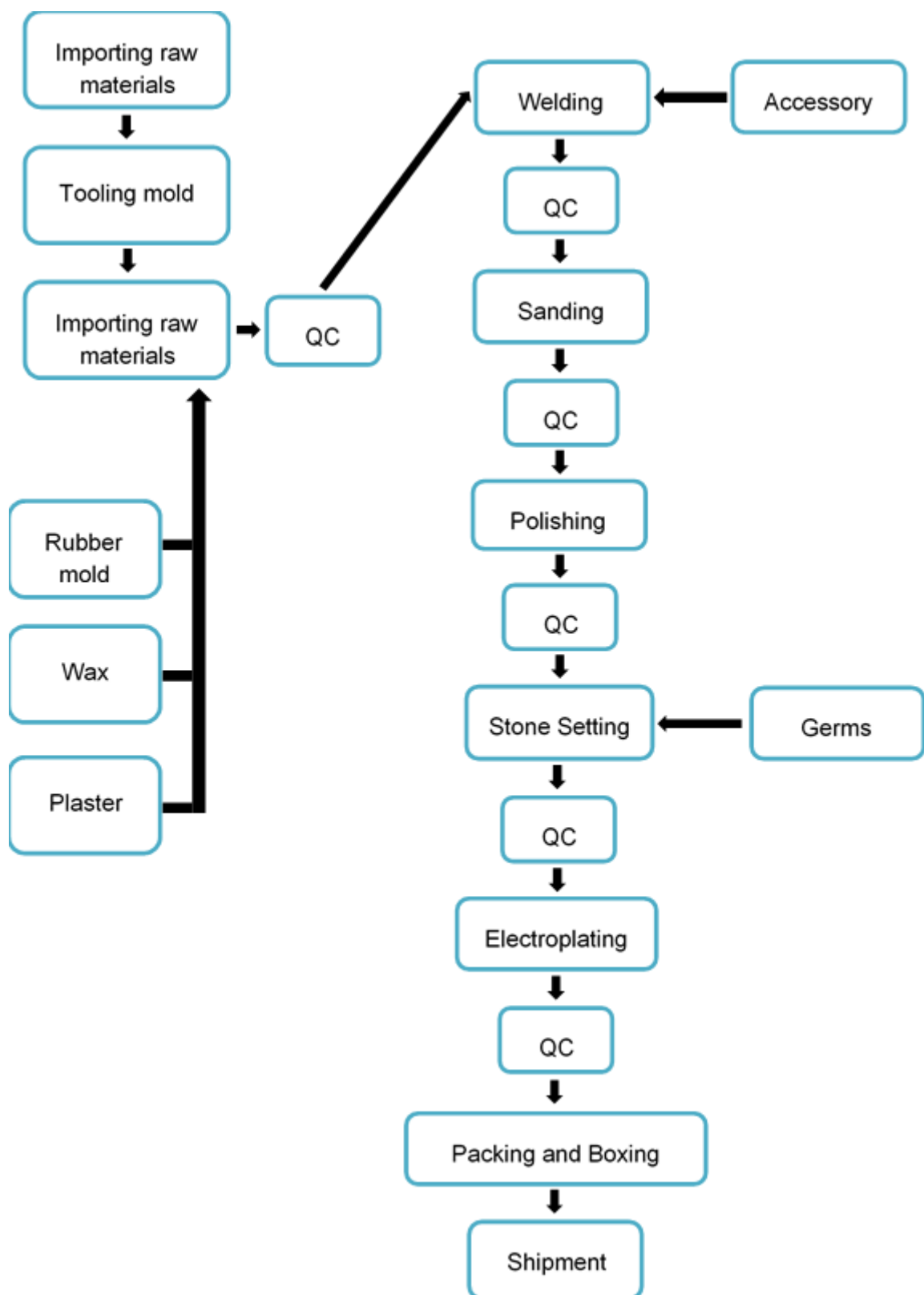


လည်ဆွဲ



ဆွဲကြိုး

ကုန်ချောပစ္စည်းများ



ထုတ်လုပ်မှုလုပ်ငန်းအဆင့်ဆင့်

၂။ စီမံကိန်းအဆိုပြုသူဆိုင်ရာ အချက်အလက်များ

ရင်းနှီးမြှုပ်နှံသူ၏ အချက်အလက်များ

ရင်းနှီးမြှုပ်နှံသူ၏ အမည်	Mr. Wei, Yu-Tsen
ID No:	P.P.No. 314537297
နိုင်ငံသား	ထိုင်ဝမ်
မှတ်ပုံတင်ထားသည့်ရုံးလိပ်စာ	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan.
အီးမေးလ်	eric@chongintl.com yilling@strongjewel.com
ဖုန်းနံပါတ်	+886-2-2700-1129*10

ရှယ်ယာရှင်များနှင့် ဒါရိုက်တာများ

အမည်	ရာထူး	နိုင်ငံသား	P.P.No/NRC	လိပ်စာ	ရှယ်ယာ(%)
Mr. Wei, Yu-Tsen	Managing Director	ထိုင်ဝမ်	314537297	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan	၇၅%
ဦးကျော်ဌေး	Director	မြန်မာ	၅/ရညန(နိုင်) ၀၁၇၇၁၇	အမှတ်(၄)၊ ပါရမီလမ်း၊ ပါရမီအိမ်ရာ၊ လှိုင်မြို့နယ်၊ ရန်ကုန်မြို့	၁၅%
ဒေါ်ခိုင်သက်မွန်	Director	မြန်မာ	၁/မညန(နိုင်) ၁၁၁၇၅၅	အမှတ်(၄)၊ ပါရမီလမ်း၊ ပါရမီအိမ်ရာ၊ လှိုင်မြို့နယ်၊ ရန်ကုန်မြို့	၁၀%
Mr. Wei, Chao-Tsung	Director	ထိုင်ဝမ်	311402278	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan	-
Ms. Wang, Li-Li	Director	ထိုင်ဝမ်	311912366	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan	-

စီမံကိန်း၏ လက္ခဏာများ

အဆိုပြုစီမံကိန်းအမျိုးအစား	CMP စနစ်ဖြင့် artificial လက်ဝတ်တန်ဆာများ ထုတ်လုပ်ခြင်း
ရင်းနှီးမြှုပ်နှံမှုအမျိုးအစား	ဖက်စပ်လုပ်ကိုင်ခြင်း (နိုင်ငံခြားသား ၇၅%၊ မြန်မာနိုင်ငံသား ၂၅%)
ရှယ်ယာအမျိုးအစား	ပုံမှန်အစုရှယ်ယာ
ကုမ္ပဏီအမျိုးအစား	Private

မြေအမျိုးအစား	ဒဂုံစက်မှုဇုန်မြေ
မြေဧရိယာစုစုပေါင်း	၄.၅၉၃ ဧက (၁၈၅၈၇.၂၁ စတုရန်းမီတာ)
အဆောက်အအုံအရေအတွက်	သုံးထပ်အဆောက်အအုံ (၁၂၀ပေ x ၄၅ပေ)
မြေငှားသက်တမ်း	၃၀ နှစ်
တည်ဆောက်ရေးကာလ	၂နှစ်
လိပ်စာ	မြေကွက်အမှတ်-(၃၇/၃၈)၊ မြေတိုင်းရပ်ကွက်အမှတ် (၁၀၉)၊ ဒဂုံမြို့သစ်အရှေ့ပိုင်း မြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး
ဆက်သွယ်ရန် ပုဂ္ဂိုလ်	ဒေါ်ရီရီသွယ် ၁၂/မရက(နိုင်)၀၆၂၁၆၀ အမှတ်(၄)၊ ပါရမီလမ်း၊ ပါရမီ အိမ်ရာ၊ လှိုင်မြို့နယ်၊ ရန်ကုန်မြို့ ၀၉-၅၁၇၅၁၁၀ shpyangon@gmail.com

၃။ ပတ်ဝန်းကျင်ဆိုင်ရာ အတိုင်ပင်ခံ ကိုယ်ရေးရာဇဝင်

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED မှ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်မှုအစီရင်ခံစာအား B.C.C JEWELRY MFG. COMPANY LIMITED အတွက် ရေးဆွဲပြုစုပေးပါသည်။ ကနဦးပတ်ဝန်းကျင်အစီရင်ခံစာရေးဆွဲမည့် MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED ၏ အဖွဲ့ဝင်များ၏ အချက်အလက်များအား အခန်း(၃)၊ ဇယား (၃-၁) တွင် အသေးစိတ်ဖော်ပြထားပါသည်။

၄။ မူဝါဒ၊ ဥပဒေနှင့် မူဘောင်များ

ပတ်ဝန်းကျင်နှင့်လူမှုရေးရာ အကြောင်းအချက်များနှင့်သက်ဆိုင်သော ဥပဒေနှင့် မူဘောင်များ

Environmental Impact Assessment Procedure (2015) နှင့် သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာနမှ ထုတ်ပြန်ထားသော National Environmental Quality (Emission) Guidelines အပါအဝင် ဒေသတွင်းနှင့် နိုင်ငံတကာမှ ထုတ်ပြန်ထားသော အောက်ပါ ပတ်ဝန်းကျင်နှင့်လူမှုရေးရာ မူဝါဒများအား ခြုံငုံသုံးသပ်ခြင်း ဖြစ်ပါသည်။

1. The Constitution Law, 2008
2. The Environmental Conversation Law, 30 March 2012
3. The Environmental Conversation Rule, 2014
4. Environmental Impact Assessment Procedure, December 2015

5. National Environmental Quality (Emission) Guideline (NEQG), December 2015
6. National Myanmar Environmental Policy, 2019
7. Foreign Investment Rule, 2013
8. Myanmar Investment Law, 2016
9. Myanmar Investment Rules, 2017
10. The Export and Import Law, 2012
11. Myanmar Insurance Law, 1993
12. The Commercial Tax Law, 1990 (Amended 2014)
13. The Amended Law for Factories Act, 1951 (Amended in 2016)
14. The Private Industrial Enterprise Law, 1990
15. The Prevention of Hazard from Chemical and Related Substances Law, 2013
16. Petroleum and Petroleum Product Law, 2017
17. Industrial Use Explosive Substances Law, 2018
18. The Law on Standardization, 2014
19. The Labor Organization Law, 2011
20. Labor Dispute Settlement Law, 28 March 2012
21. The Social Security Law, 2012
22. The Employment and Skills Development Law, 2013
23. The Worker's Compensation Act, 1923
24. Payment of Wages Law, 2016
25. The Minimum Wage Law, 2013
26. The Leave and Holidays Rules (1951, partially revised in 2018)
27. Public Health Law, 1972
28. Prevention and Control of Communicable Disease Law, 1995 (Amendment in 2011)
29. Occupational Safety and Health Law, 2019
30. Natural Disaster Management Law, 2013
31. Myanmar Engineering Council Law, 2013
32. Myanmar Fire Brigade Law, 2015
33. Protection and Preservation of Cultural Heritage, 1998
34. The Protection and Preservation of Ancient Monument Law, 2015
35. The Conservation of Water Resources and Rivers Law, 2016
36. Underground Water Act, 21 June 1930
37. The Electricity Law, 2014
38. The Motor Vehicles Law, 2015
39. The Forest Law, 3 November 1992

40. National Land Use Policy, 2014 October

41. The Protection of Wildlife and Conservation of Natural Areas Law, 1994 (Amended in 2018)

၅။ အနီးပတ်ဝန်းကျင်အခြေအနေ

ပတ်ဝန်းကျင်ဆိုင်ရာ အခြေခံလေ့လာမှု

ပတ်ဝန်းကျင်ဆိုင်ရာအခြေခံအချက်အလက်များအတွက် အချက်အလက်များစုဆောင်းကောက်ယူခြင်းအား ၂၀၂၂ခုနှစ်၊ ဒီဇင်ဘာလ ၂၃ ရက်နေ့တွင် အဆိုပြုစီမံကိန်းအတွင်း တိုင်းတာဆန်းစစ် ကောက်ယူခဲ့ပါသည်။ အဆိုပြုစီမံကိန်း၏ အပူချိန်နှင့်စိုထိုင်းဆအခြေအနေ၊ လေအရည်အသွေး၊ ဆူညံသံ၊ အနံ့၊ အလင်းရောင်ရရှိမှု၊ စွန့်ပစ်ရေနှင့် သောက်သုံးရေစစ်ဆေးခြင်း ပြုလုပ်ရန် နမူနာကောက်ယူခြင်းများ ဆောင်ရွက်ခဲ့ပါသည်။ အဆိုပြုစီမံကိန်းဧရိယာအနီးရှိ လူမှုစီးပွား အခြေအနေများ၊ ရုပ်ပိုင်းဆိုင်ရာ၊ ဇီဝပတ်ဝန်းကျင်ဆိုင်ရာ၊ ရာသီဥတုဆိုင်ရာ အချက်အလက်များအား ဒဂုံမြို့သစ်အရှေ့ပိုင်းမြို့နယ်မှ ရယူထားရှိပါသည်။



ပတ်ဝန်းကျင်ဆိုင်ရာ အခြေခံအချက်အလက်များ ကောက်ယူခဲ့သည့် မြေပုံ

အဆိုပြုစီမံကိန်းအတွက် ကွင်းဆင်းကောက်ယူခဲ့မှုရလဒ်များ

အမျိုးအစား	ရလဒ်	လမ်းညွှန်ချက်တန်ဖိုး
ရာသီဥတုဆိုင်ရာအခြေအနေများ		
စီမံကိန်းအတွင်း အပူချိန်	၃၈.၃ °C	-
ပျမ်းမျှ စိုထိုင်းဆ	၅၈.၂ %	-
လေအရည်အသွေး		
PM ₁₀	၂၆.၄၉ µg/m ³	၅၀
PM _{2.5}	၁၆.၅၃ µg/m ³	၂၅
SO ₂	၅.၉၇ µg/m ³	၂၀
NO ₂	၁၀.၂၅ µg/m ³	၄၀
O ₃	၃၅.၉၂ µg/m ³	၁၀၀
CO	၀.၅၃ µg/m ³	No Guideline
VOC	၀.၀၂ ppm	No Guideline
ဆူညံသံ		
စီမံကိန်းဧရိယာ	၅၉.၆ dBA	၇၀ dBA
အနံ့		
OI	၀.၃၅ ppm	-
အလင်းရောင်တိုင်းတာမှု		
စီမံကိန်းဧရိယာ	၃၂၈ Lux	၃၀၀
Polishing	၁၀၅၄ Lux	၁၀၀၀
Stone Setting	၁၃၅၆ Lux	၁၀၀၀
Drying Room	၅၈၁ Lux	၆၀၀
QC	၇၂၄ Lux	၆၀၀
Packing	၆၃၇ Lux	၆၀၀

ဓာတုသန့်စင်စနစ်မှ ထွက်ရှိသော ရေနံနှင့် သောက်သုံးရေ စစ်ဆေးချက်များအား အပိုဒ်ခွဲ (၅.၂.၆)နှင့် အပိုဒ်ခွဲ (၅.၂.၇) တွင် အသေးစိတ်ဖော်ပြထားရှိပါသည်။

လေထုအရည်အသွေးတိုင်းတာခြင်းတွင် CO နှင့် VOC ပါဝင်မှုနှုန်းမှာ လက်ခံနိုင်သော အခြေအနေတွင် ရှိပြီး PM₁₀, PM_{2.5}၊ O₃၊ NO₂၊ SO₂ တိုင်းတာမှုများမှာလည်း အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်အတွင်း ရှိပါသည်။ လုပ်ငန်းခွင်အတွင်း ဆူညံသံတိုင်းတာခြင်း၊ အလင်းရောင်ရရှိမှုတိုင်းတာခြင်း၊ အနံ့ပြင်းထန်မှုတိုင်းတာခြင်းတို့မှာလည်း အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် အတွင်း ရှိပါသည်။

အဆိုပြုစီမံကိန်း၏ ဖွံ့ဖြိုးတိုးတက်မှုသည် ရုပ်ပိုင်းဆိုင်ရာ၊ ဇီဝပိုင်းဆိုင်ရာနှင့် လူမှုစီးပွားရေး ရှုထောင့်များနှင့် ပတ်သက်၍ အပြုသဘောနှင့် အပျက်သဘောဆောင်သော အကျိုးသက်ရောက်မှု နှစ်ခုစလုံးအပေါ် အခြေခံ၍ ဒေသတွင်း ပတ်ဝန်းကျင်တွင် ပြောင်းလဲမှုများ ဖြစ်ပေါ်နိုင်ဖွယ်ရှိပါသည်။ အဆိုပြုစီမံကိန်း ၏ လုပ်ဆောင်မှုများကြောင့် ဖြစ်ပေါ်လာနိုင်သော ပတ်ဝန်းကျင်ဆိုင်ရာ အကျိုးသက်ရောက်မှု အလားအလာများအား ကွင်းဆင်းစစ်ဆေးခြင်း၊ စီမံကိန်းအဆိုပြုသူ၊ စီမံကိန်းမန်နေဂျာ၊ တာဝန်ရှိသူများနှင့်တွေ့ဆုံဆွေးနွေးခြင်းများပြုလုပ်၍ အမျိုးအစား ခွဲခြားပြီး ဆန်းစစ်ရမည် ဖြစ်ပါသည်။

၆။ အကျိုးသက်ရောက်မှုများအား အမျိုးအစားခွဲခြားခြင်းနှင့် လျှော့ချရေးနည်းလမ်းများ

အကျိုးသက်ရောက်မှုတစ်ခုချင်းစီအတွက် အမျိုးအစားခွဲခြားခြင်းအား လုပ်ငန်းလုပ်ဆောင်နေသည့် အချိန် ကာလအတွင်း သက်ရောက်မှုများ၏ ပမာဏ၊ ကြာချိန်၊ အတိုင်းအတာနှင့် ဖြစ်နိုင်ခြေများအပေါ် မူတည်၍ တွက်ချက် သွားမည်ဖြစ်ပါသည်။

အကဲဖြတ်ခြင်း	အတိုင်းအတာ				
	၁	၂	၃	၄	၅
ပမာဏ	မလုံလောက်သော	အနည်းငယ် နှင့် လုပ်ငန်းခွင် ပြောင်းလဲမှု ဖြစ်စေနိုင်သော	အသင့်အတင့်နှင့် အနည်းငယ် လုပ်ငန်းခွင် ပြောင်းလဲမှု ဖြစ်စေနိုင်သော	မြင့်မားနှင့် သိသာစွာ လုပ်ငန်းခွင် ပြောင်းလဲမှု ဖြစ်စေနိုင်သော	အလွန်မြင့်မားနှင့် အမြဲတမ်း လုပ်ငန်းခွင် ပြောင်းလဲမှု ဖြစ်စေနိုင်သော
အချိန်	၀-၁နှစ်	၂-၅နှစ်	၆-၁၅နှစ်	လုပ်ငန်းလည်ပတ်စဉ် ကာလ တစ်လျှောက်	လုပ်ငန်းပိတ်သိမ်း ခြင်းကာလအထိ
ကျယ်ပြန့်မှု	လုပ်ငန်းခွင်အတွင်း	ဒေသအတွင်း	မြို့နယ်အတွင်း	နိုင်ငံအတွင်း	နိုင်ငံတကာအတွင်း

အကဲဖြတ်ခြင်း	အတိုင်းအတာ				
	၁	၂	၃	၄	၅
ဖြစ်နိုင်ချေ	လုံးဝမဖြစ်နိုင်သော	မဖြစ်နိုင်သော	ဖြစ်နိုင်သော	ဖြစ်နိုင်ခြေ မြင့်သော	အတိအကျ

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

ပတ်ဝန်းကျင်ထိခိုက်မှုကို အောက်ပါအတိုင်း ခွဲခြားနိုင်သည်။

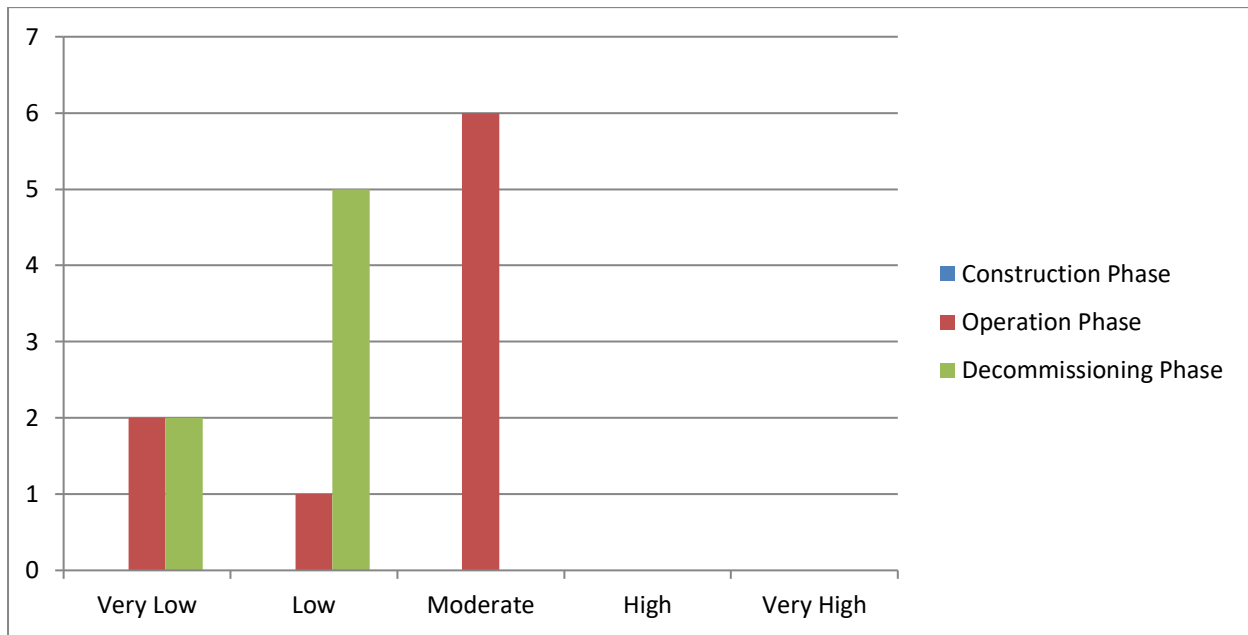
သတ်မှတ်ချက်	ထိခိုက်မှုအဆင့်
<၁၅	အလွန်နိမ့်
၁၅ - ၂၉	နိမ့်
၃၀ - ၄၄	အလယ်အလတ်
၄၅ - ၅၉	မြင့်
၆၀	အလွန်မြင့်

လုပ်ငန်းစဉ်အဆင့်တွင် အသင့်အတင့်နှင့် အနည်းငယ်လုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော အတိုင်းအတာ (၄)ခု၊ အနည်းငယ်နှင့် လုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော အတိုင်းအတာ (၂)ခု နှင့် ပြောင်းလဲမှုမဖြစ်စေနိုင်သော အတိုင်းအတာ (၂) ခုရှိပါသည်။ လုပ်ငန်းစဉ်အဆင့်တွင် ဖြစ်ပေါ်နိုင်သော အကျိုးသက်ရောက်မှုအားလုံးအား လျော့ချရေး နည်းလမ်းများနှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား အကောင်အထည်ဖော်ခြင်းများဖြင့် လျော့နည်းအောင် လုပ်ဆောင်နိုင်ပါသည်။

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့်	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
တည်ဆောက်ရေးကာလ။ ပတ်ဝန်းကျင်ထိခိုက်မှု လေ့လာချိန်တွင် စက်ရုံတည်ဆောက်ပြီး လုပ်ငန်းလည်ပတ်နေချိန်ဖြစ်သော ကြောင့် ဤကာလကို ထည့်သွင်းမစဉ်းစားတော့ပါ။			
လုပ်ငန်းလည်ပတ်ခြင်းကာလ			
လေထုညစ်ညမ်းမှု	<ul style="list-style-type: none"> သယ်ယူပို့ဆောင်ရေးသုံး မော်တော်ယာဉ်တို့ကြောင့် ဖုန်မှုန့်နှင့် ဖန်လုံအိမ်ခါတ်ငွေ့ ထွက်ခြင်း၊ လုပ်ငန်းခွင်အတွင်း ဖုန်မှုန့် ထွက်ခြင်း၊ 	အသင့်တင့်	<ul style="list-style-type: none"> မီးစက်တို့တွင် မီးခိုးခေါင်းတိုင် တပ်ဆင်ခြင်းဖြင့် အခိုးအငွေ့ကြောင့် ပတ်ဝန်းကျင်ထိခိုက်မှုကို လျော့ချခြင်း၊ စက်ရုံအတွင်းနှင့် အနီးအနားတွင် သစ်ပင်ပန်းမဲ့ စိုက်ပျိုးခြင်းဖြင့် Carbon ထွက်ရှိမှုကို လျော့ချပေးခြင်း၊

	<ul style="list-style-type: none"> မီးဖိုမှ မီးခိုးထွက်ခြင်း၊ အရေးပေါ်သုံး မီးစက်မှ စွန့်ထုတ်အခိုးအငွေ့ ထွက်ခြင်း 		<ul style="list-style-type: none"> NOx ထွက်ရှိမှုနည်းသော နည်းပညာ မြင့်စက်ပစ္စည်းများ သုံးခြင်း စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း၊
ရေ	<ul style="list-style-type: none"> မိလ္လာစွန့်ထုတ်ရေ စက်ပစ္စည်း၊ မော်တော်ယာဉ် များမှ ဆီယိုဖိတ်ခြင်း 	အနည်းငယ်	<ul style="list-style-type: none"> လက်ရှိရေဆိုးစွန့်ပစ်မှု ပုံစံဖြစ်သော မိလ္လာစနစ်ကို ပုံမှန်စစ်ဆေးပေးခြင်း၊ မိလ္လာကန်နှင့် မိလ္လာစနစ်ကို လူဦးရေ နှင့် သင့်တင့်သည့် ပမာဏ ရရှိရန် စီစဉ်ထားခြင်း၊ ပုံမှန်သန့်ရှင်းရေးပြုလုပ်ပေးခြင်း၊ စက်ပစ္စည်းများကို ပုံမှန် ပြုပြင် ထိန်းသိမ်းပေးခြင်း၊
မြေဆီလွှာ ညစ်ညမ်းမှု	<ul style="list-style-type: none"> မတော်တဆ စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း 	အလွန်နည်း	<ul style="list-style-type: none"> စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင် ထိန်းသိမ်းပေးခြင်း၊ မတော်တဆမှု မဖြစ်စေရန် ထိန်းသိမ်းခြင်း၊
ဆူညံသံ	<ul style="list-style-type: none"> မီးစက်၊ လေမှုစက်နှင့် မော်တော်ယာဉ် အသုံးပြုမှု ကြောင့် ပတ်ဝန်းကျင် ဆူညံမှု 	အသင့်အတင့်	<ul style="list-style-type: none"> ဆူညံသံထွက်သောနေရာများကို အကာအကွယ်ဖြင့် ထားရှိခြင်း၊ စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ပေးခြင်း
မီးဘေးအန္တရာယ်	<ul style="list-style-type: none"> ကုန်ကြမ်းသိုလှောင်မှုနှင့် လျှပ်စစ်သုံးစွဲမှု ပေါ့လျော့ခြင်း 	အသင့်အတင့်	<ul style="list-style-type: none"> ကုန်ကြမ်းများအား သီးသန့်ထားရှိခြင်း၊ လျှပ်စစ်သုံးစွဲမှုများအား စနစ်တကျ အသုံးပြုစေခြင်း၊
စွန့်ပစ်အမှိုက်	<ul style="list-style-type: none"> မီးဖိုချောင်နှင့် ရုံးတွင်းစွန့်ပစ် ပစ္စည်းများ 	အသင့်အတင့်	<ul style="list-style-type: none"> စွန့်ပစ်အမှိုက်များအား ပြန်လည် သုံးစွဲ ရန်နှင့် စွန့်ပစ်ရန်အဖြစ် သတ်မှတ်ပြီး သီးခြား စွန့်ပစ်စေခြင်း၊
စွန့်ပစ်အရည်	<ul style="list-style-type: none"> နေအိမ်၊ စားသောက်ဆောင် တို့မှ စွန့်ထုတ်ရေ၊ မိလ္လာကန်စနစ် 	အသင့်အတင့်	<ul style="list-style-type: none"> ပုံမှန်စစ်ဆေးခြင်း၊ သန့်ရှင်းရေး ပြုလုပ်ခြင်း၊ သိုလှောင်ရုံနှင့် စွန့်ပစ်ပစ္စည်းများအတွက် လုံလောက် သော ဖုံးအုပ်မှုများ ထားရှိစေခြင်း၊
အန္တရာယ်ရှိအမှိုက်	<ul style="list-style-type: none"> စက်များမှ ဆီယိုဖိတ်မှုများ၊ မော်တော်ယာဉ်များပြုပြင် ထိန်းသိမ်းမှုမှ ထွက်ရှိသည့် အမှိုက်များ၊ 	အလွန်နည်း	<ul style="list-style-type: none"> စက်သုံးဆီများအား စနစ်တကျ အသုံးပြုစေခြင်း၊ စနစ်တကျ သိုလှောင်ခြင်းနှင့် အန္တရာယ်ရှိ ဓာတု ပစ္စည်းများအား စနစ်တကျ ထားရှိစေခြင်း၊

	<ul style="list-style-type: none"> • ဓာတုပစ္စည်းထည့်သွင်းသိုလှောင်သည့် ပုံးများ၊ 		
လူမှုစီးပွားဘဝ	<ul style="list-style-type: none"> • ဒေသခံပြည်သူများအတွက် အလုပ်အကိုင်အခွင့်အလမ်းများ ရရှိစေခြင်း 		
လုပ်ငန်းပိတ်သိမ်းခြင်းကာ			
လေထုညစ်ညမ်းမှု	<ul style="list-style-type: none"> • အဆောက်အဦများ ဖြိုချမှုများ၊ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	အနည်းငယ်	<ul style="list-style-type: none"> • NOx ထွက်ရှိမှုနည်းသော နည်းပညာ မြင့်စက်ပစ္စည်းများ သုံးခြင်း • စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း
ရေ	<ul style="list-style-type: none"> • ဖြိုချပစ္စည်းများနှင့် မိလ္လာဖျက်ဆီးမှုများ 	အနည်းငယ်	<ul style="list-style-type: none"> • ပုံမှန်သန့်ရှင်းရေးပြုလုပ်ပေးခြင်း၊ • စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း
မြေဆီလွှာညစ်ညမ်းမှု	<ul style="list-style-type: none"> • အဆောက်အဦနှင့် ဆက်စပ်ပစ္စည်းများ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	အနည်းငယ်	<ul style="list-style-type: none"> • မတော်တဆမှု မဖြစ်စေရန် ထိန်းသိမ်းခြင်း၊
အမှိုက်စွန့်ပစ်မှု	<ul style="list-style-type: none"> • အဆောက်အဦများ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	အလွန်နည်း	<ul style="list-style-type: none"> • စွန့်ပစ်အမှိုက်များအား ပြန်လည် သုံးစွဲရန်နှင့် စွန့်ပစ်ရန်အဖြစ် သတ်မှတ်ပြီး သီးခြား စွန့်ပစ်စေခြင်း၊
အန္တရာယ်ရှိအမှိုက်	<ul style="list-style-type: none"> • စက်များမှ ဆီယိုစိမ့်မှုများ၊ မော်တော်ယာဉ်များ ပြုပြင်ထိန်းသိမ်းမှုမှ ထွက်ရှိသည့် အမှိုက်များ၊ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ၊ • ဓာတုပစ္စည်းများအား ဖျက်ဆီးစွန့်ပစ်ခြင်း၊ 	အလွန်နည်း	<ul style="list-style-type: none"> • စက်သုံးဆီများအား စနစ်တကျ အသုံးပြုစေခြင်း၊ စနစ်တကျ သိုလှောင်ခြင်းနှင့် အန္တရာယ်ရှိ ပစ္စည်းများအား စနစ်တကျ ထားရှိစေခြင်း၊
မတော်တဆထိခိုက်မှုများ	<ul style="list-style-type: none"> • အဆောက်အဦများ ဖြိုချမှုများ၊ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ၊ 	အနည်းငယ်	<ul style="list-style-type: none"> • မတော်တဆမှုမဖြစ်စေရန် ထိန်းသိမ်းခြင်း၊
လူမှုစီးပွားဘဝ	<ul style="list-style-type: none"> • ဒေသခံပြည်သူများအတွက် အလုပ်အကိုင် ခေတ္တရရှိခြင်း 		



United Kingdom မှ Institute of Environmental Management and Assessment (IEMA) ၏ ပြန်လည်ဆန်းသစ်ထားသော နည်းလမ်းကို အကျိုးသက်ရောက်မှုများအား အကဲဖြတ်ရန်အတွက် ဤအစီရင်ခံစာတွင် အသုံးပြုခဲ့ပါသည်။ ဆန်းစစ်လေ့လာမှု၏ ရလဒ်များတွင် စီမံကိန်းလုပ်ဆောင်မှုအများစုသည် အလွန်နည်းပါးပြီး အချို့မှာ ပတ်ဝန်းကျင်လုပ်ဆောင်မှုအတွက် တိုးတက်ကောင်းမွန်စေရန် အသင့်အတင့် သိသာထင်ရှားကြောင်း ဖော်ပြထားပါသည်။ လူမှုရေးနှင့် စီးပွားရေးဖွံ့ဖြိုးတိုးတက်မှုများအတွက် အဆိုပြုစီမံကိန်းသည် အပြုသဘောဆောင်သော အကျိုးသက်ရောက်မှုများ ဖြစ်စေပါသည်။

၇။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို သတ်မှတ်ထားသော အကျိုးသက်ရောက်မှုများ၊ လျော့ချမှု၊ တိုင်းတာမှုများ၊ စီမံခန့်ခွဲမှုနှင့် စောင့်ကြပ်ကြည့်ရှုရေးအစီအစဉ်များပေါ် မူတည်၍ အကောင်အထည်ဖော်ခဲ့ပါသည်။ အဆိုပြုစီမံကိန်း၏ ပတ်ဝန်းကျင်ဆိုင်ရာတိုးတက်မှုများနှင့် ပြုပြင်ပြောင်းလဲမှုများအတွက် အောက်ဖော်ပြပါ အစီအစဉ်များ ပြီးမြောက်ရန်၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား သုံးသပ်ရန်အတွက် B.C.C JEWELRY MFG. COMPANY LIMITED မှ စက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအဖွဲ့အား ဖွဲ့စည်းထားရှိပါသည်။ ပတ်ဝန်းကျင်လေထုအရည်အသွေး၊ ဆူညံသံ၊ ရေအရည်အသွေး၊ အညစ်အကြေးနှင့် အစိုင်အခဲစွန့်ပစ်ပစ္စည်းများစွန့်ပစ်ခြင်းအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအဖွဲ့၏ ခေါင်းဆောင်မှ စောင့်ကြပ်ကြည့်ရှုသွားမည်ဖြစ်ပါသည်။ စီမံကိန်းအဆိုပြုသူမှ လူမှုရေးတာဝန်ယူဆောင်ရွက်မှုအစီအစဉ်နှင့် အရေးပေါ်ပြင်ဆင်ထားရှိမှုများအား ဒေသခံပြည်သူများ၏ အကျိုးကျေးဇူးအတွက် ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်

- ၂။ ရေအသုံးပြုမှုဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၃။ အနံ့ထွက်ရှိမှု စီမံခန့်ခွဲမှုအစီအစဉ်
- ၄။ ရေဆိုးစွန့်ပစ်မှု စီမံခန့်ခွဲမှုအစီအစဉ်
- ၅။ ဆူညံမှုထိန်းချုပ်ခြင်းဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၆။ အစိုင်အခဲစွန့်ပစ်ပစ္စည်းဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၇။ မီးဘေးအန္တရာယ် စီမံခန့်ခွဲမှုအစီအစဉ်
- ၈။ လုပ်ငန်းခွင်ဘေးကင်းလုံခြုံရေးနှင့် ကျန်းမာရေး စီမံခန့်ခွဲမှုအစီအစဉ်
- ၉။ စွမ်းအင်အသုံးပြုမှုဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၁၀။ အရေးပေါ်တုံ့ပြန်ရေးနှင့် သဘာဝဘေးဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၁၁။ စွမ်းဆောင်ရည်မြှင့်တင်ရေးနှင့် လေ့ကျင့်ရေးဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၁၂။ မကျေနပ်မှုများဆိုင်ရာ ဖြေရှင်းမှု နည်းလမ်း
- ၁၃။ လူမှုရေးဆိုင်ရာ တာဝန်ယူဆောင်ရွက်မှု အစီအစဉ်

အဆိုပြုစီမံကိန်း၏ ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်၊ အချိန်ဇယားနှင့် ငွေကြေးအစီအစဉ်များအား အပိုဒ် (၇.၆)၊ ဇယား (၇-၁)နှင့် အပိုဒ် (၇.၇)၊ ဇယား (၇-၂) တွင် အသေးစိတ်ဖော်ပြထားရှိပါသည်။

အဆိုပြုစီမံကိန်းသည် အရှေ့ဒဂုံစက်မှုဇုန်၊ ဒဂုံမြို့သစ်အရှေ့ပိုင်းမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် တည်ရှိသောကြောင့် စီမံကိန်းမှ ဒေသခံပြည်သူများအား ထိခိုက်နိုင်ချေ မရှိပါ။ အဆိုပြုစီမံကိန်း၏ အကြောင်းအချက်များနှင့် ဤကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာအား အများပြည်သူနှင့် သက်ဆိုင်သူများမှ အောက်ဖော်ပြပါ Website၊ Facebook Page များတွင် ဝင်ရောက်လေ့လာ ကြည့်ရှုနိုင်ပါသည်။

Myanwei website: www.myanweiconsulting.com

<https://www.facebook.com/Myanwei-Environmental-Solutions-Company-Limited>.

၈။ အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးခြင်း

ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာအတွက် အများပြည်သူနှင့်တွေ့ဆုံဆွေးနွေးခြင်းအား ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်းအရ ၉ ရက်၊ မတ်လ၊ ၂၀၂၃ခုနှစ်တွင် ပြုလုပ်ခဲ့ပါသည်။

အချိန်နှင့်နေ့ရက်	ကြာသပတေးနေ့၊ ၉ ရက်၊ မတ်လ၊ ၂၀၂၃ခုနှစ် မနက် ၁၀:၀၀ မှ ၁၁:၁၅ အထိ
ကျင်းပသည့်နေရာ	B.C.C Jewelry MFG. Company Limited၏ အစည်းအဝေးခန်းမ၊ မြေကွက်အမှတ်- (၃၇/၃၈)၊ မြေတိုင်းရပ်ကွက်အမှတ် (၁၀၉)၊ ဒဂုံမြို့သစ်အရှေ့ပိုင်း မြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး။
အစည်းအဝေး အကြောင်းအရာ	<ul style="list-style-type: none"> • B.C.C Jewelry MFG. Company Limited. အား မိတ်ဆက်ခြင်း။ • ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာအား မိတ်ဆက်ခြင်း။ • သက်ရောက်မှုဆန်းစစ်ခြင်းရလဒ်များနှင့် ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ။ • ပတ်ဝန်းကျင်အပေါ်သက်ရောက်မှုများနှင့် ဖြေလျှော့ရေးနည်းလမ်းများ။ • ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် • စက်ရုံ၏ဆောက်ရွက်ချက်များ။
ဆွေးနွေးတင်ပြသည့် အဖွဲ့အစည်း	Myanwei Environmental Solutions Company Limited

၉။ နိဂုံး

အဆိုပြုစီမံကိန်းသည် ဒေသခံအလုပ်အကိုင်အခွင့်အလမ်းများ ဖြစ်ထွန်းစေရန်နှင့် ဝန်ထမ်းများ၏ စွမ်းဆောင်ရည်နှင့် အလုပ်စွမ်းအားများ မြှင့်တင်ပေးနိုင်ရန်အတွက် များစွာ အထောက်အကူပြုပါသည်။ အကျိုးဆက်အနေဖြင့် ဝန်ထမ်းများ၏ လူမှုစီးပွားရေးစံနှုန်းများအား မြှင့်တင်ပေးနိုင်ရန် ရည်ရွယ်ပြီး လူမှုရေးဆိုင်ရာ တာဝန်ယူဆောင်ရွက်မှုများအားလည်း အပြည့်အဝ လုပ်ဆောင်သွားမည်ဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်းမှ ဒေသဆိုင်ရာနှင့် နိုင်ငံဖွံ့ဖြိုးတိုးတက်မှုအတွက် များစွာသော အကျိုးကျေးဇူးများ ရှိနိုင်မည့် ကောင်းမွန်သော အကျိုးသက်ရောက်မှုများအား လေ့လာတွေ့ရှိရပါသည်။

EXECUTIVE SUMMARY

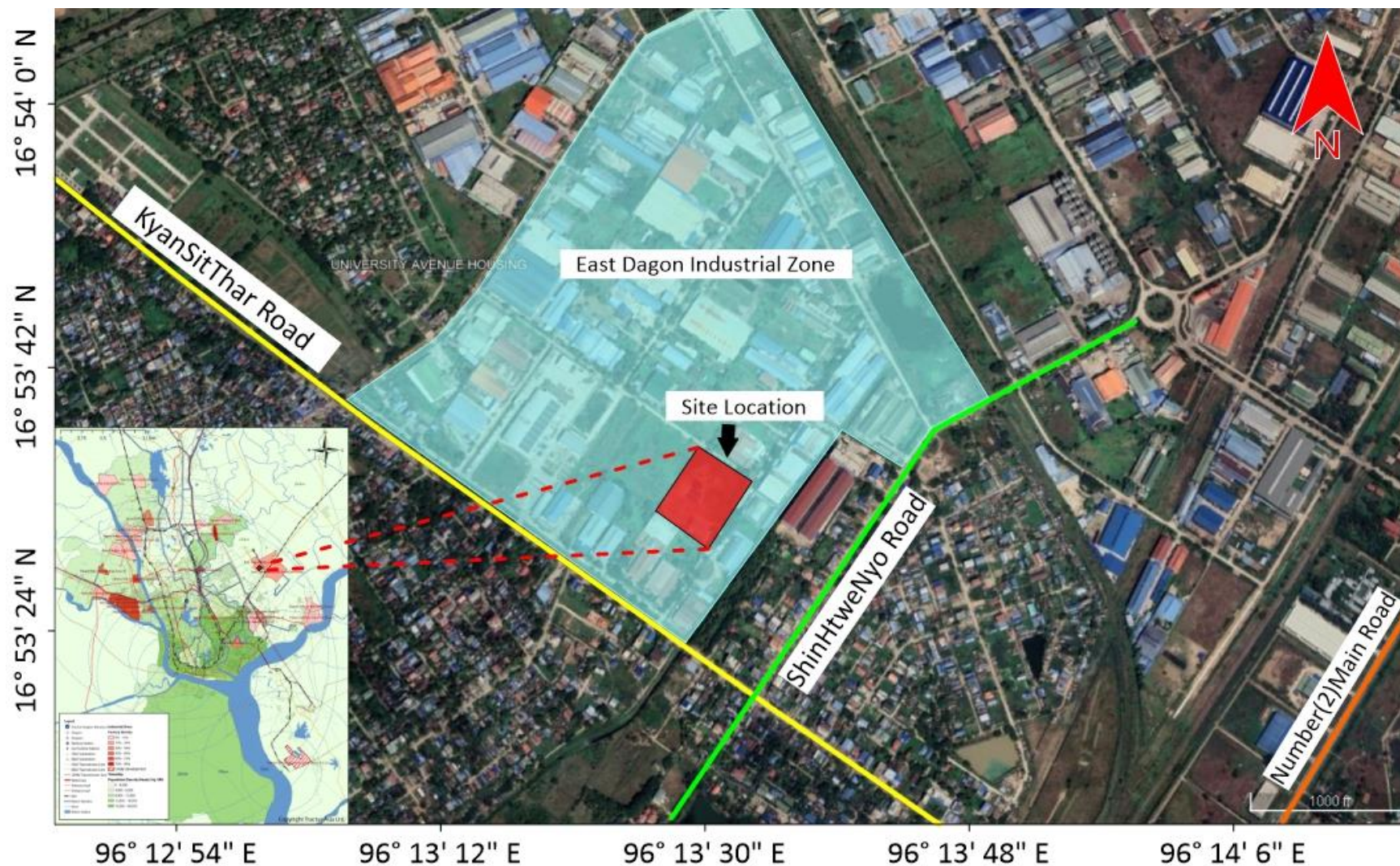
1. Project Description

This report describes the findings of the Initial Environmental Examination (IEE) for the Manufacturing of various kinds of artificial jewelry on CMP Basic by B.C.C JEWELRY MFG. 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.

As per the comments of Environmental Conservation Department (ECD), said project requires an Initial Environmental Examination (IEE) to meet the environmental assessment requirements of Notification No. Yaka- 1/3/4 (EIA) (2326/2020) on 14 August 2020. Therefore, B.C.C JEWELRY MFG. COMPANY LIMITED commissioned MYANWEI ENVIRONMENTAL SOLUTIONS CO.,LTD. (Myanwei) for IEE report study.

The proposed project is located at between Latitude 16°53'28.57"N, Longitude 96°13'32.26"E and Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region. The total land area of the proposed project area is 4.593 acres. The period of the project identification of construction phase is started in August 2022, about 2 year and it is machinery and equipment installation period. The proposed project is joint venture with foreign shares (75%) and myanmar's shares (25%). The investment value of the project is 3 million US\$. The proposed project will be implemented from 2022 to 2052.

No alternative site has been proposed aside from this area since the proposed project area is situated within East Dagon Industrial Zone, East Dagon Myothit Township, Yangon Region, which has been designated and already finished the construction phase during IEE study.



Location Map of B.C.C JEWELRY MFG. COMPANY LIMITED



Factory Aerial Photo



Adjacent Location Map of Proposed Project

The factory aims to manufacture of artificial jewelry on CMP basis. Artificial jewelry manufacturing needs about 385 employees and 380 employees are local people, 5 employees are foreigner who manage the company by their dynamic, enthusiastic, experienced, and cooperative skills. The main raw materials are sliver/semi-manufactured silver 925, brass, synthetic stone, plating, silver accessory and etc. The estimated production rate is (4,500,000 – 14,141,334) pieces during first year to 30 years of production rate. The raw materials were imported from local, China and Hongkong and then finished good products exported to United State Of America. The proposed project investment duration is 30 years and they will close out the project according to their YRIC proposal.

The first production process after receiving an order is casting with existing molds. The second process that requires skill is stone setting. The next is the polishing process, which is simply surface treatment. Half is manual and half is assisted by machines. Electroplating is one of the most important processes. Basically, no matter it is silver jewelry or K gold jewelry, it must be electroplated. Quality inspection is carried out before shipment, it is then packaged, boxed, and invoiced according to customer requirements.



Bracelet



Ring



Earring

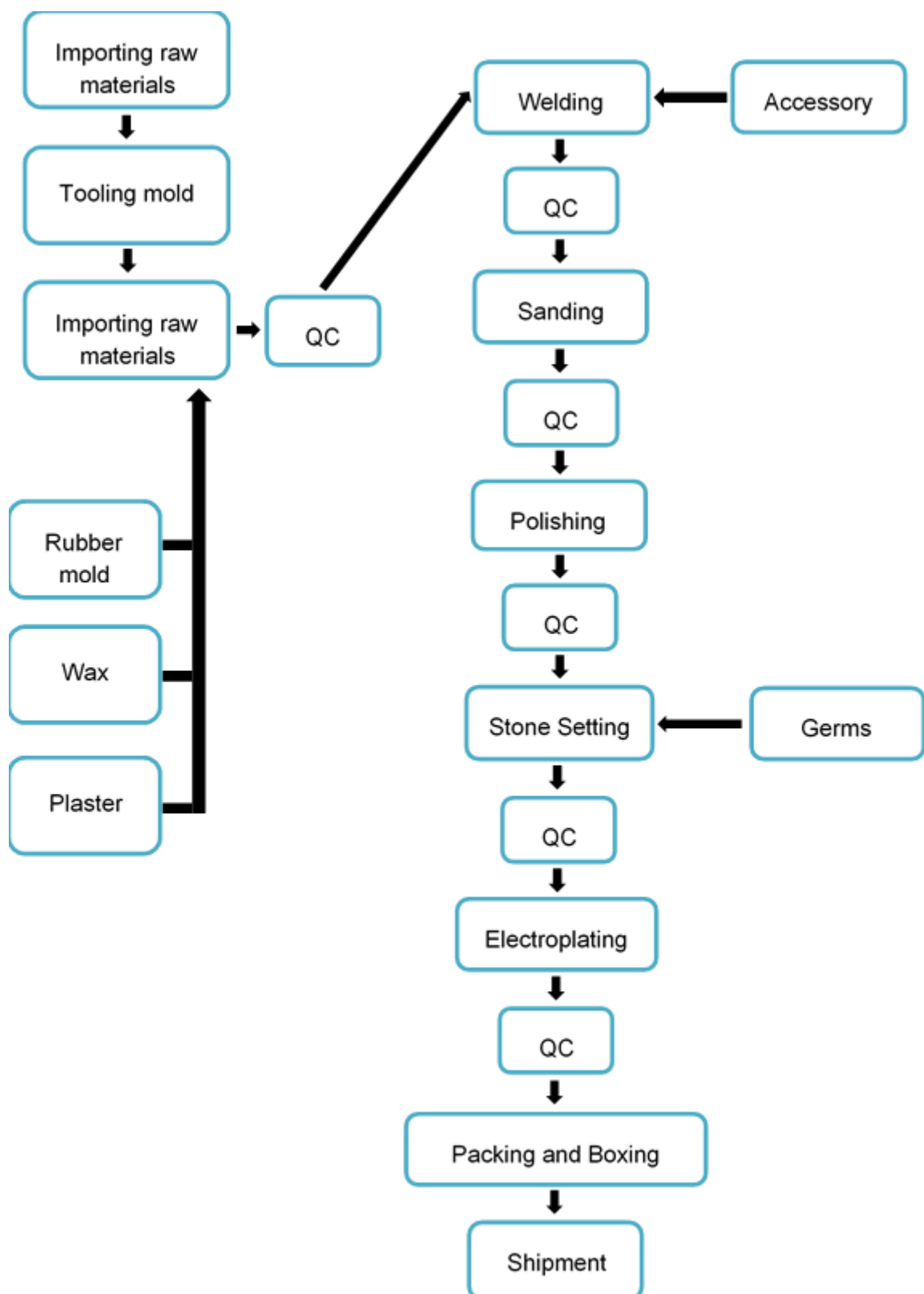


Pendant



Necklace

Product Photos



Production Process Diagram

2. Project Proponent Profile

Information of Investor

Investor Name:	Mr. Wei, Yu-Tsen
ID No:	P.P.No. 314537297
Citizenship:	Taiwan
Address of Registration office:	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan.
Email	eric@chongintl.com yilling@strongjewel.com
Phone No.	+886-2-2700-1129*10

Shareholder and Director List

Name	Position	Citizenship	P.P.No/NRC	Address	Share Percentage
Mr. Wei, Yu-Tsen	Managing Director	Taiwan	314537297	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan	75%
U Kyaw Htay	Director	Myanmar	5/YaOuNa(N) 017717	Bldg No.4, Parami Road, Parami Residence, Hlaing Township, Yangon Region	15%
Daw Khaing Thet Mon	Director	Myanmar	1/MaNyaNa(N) 111755	Bldg No.4, Parami Road, Parami Residence, Hlaing Township, Yangon Region	10%
Mr. Wei, Chao-Tsung	Director	Taiwan	311402278	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan	-
Ms. Wang, Li-Li	Director	Taiwan	311912366	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan	-

Salient features of the project

Type of Proposed Business	Manufacturing of artificial Jewelry on CMP Basis
Type of investment	Joint Venture (75% Foreign & 25% Myanmar)
Type of Share	Ordinary Share
Type of Company	Private
Type of land	Dagon Industrial Land
Total land area	4.593 acres (18587.21 sqm)
Total building area	A three storey building (120 ft × 45 ft)
Land lease year	30 years
Construction period	1 year
Address	Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region.

Contact person	Daw Yi Yi Thwe 12/MaYaKa(N) 062160 No. (4), ParamiLawKaNat Residence, Parami Road, Hlaing Township, Yangon. 09-5175110 shpyangon@gmail.com
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3. Environmental Consultant Profile

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED prepares the Initial Environmental Examination (IEE) for B.C.C JEWELRY MFG. COMPANY LIMITED. The members of IEE study team of Myanwei is described in **CHAPTER 3, Table 3-1**.

4. Policy, Legal and Institutional Framework

Laws and Regulations Related to Environmental and Social Consideration

The brief summary of relevant national environmental legislations such as Environmental Impact Assessment Procedure (2015) and National Environmental Quality (emission) Guidelines, established by the Ministry of Natural Resources and Environmental Conservation (MONREC) and overview of current local and international environmental and social policies including related international or regional convention for the proposed project.

42. The Constitution Law, 2008
43. The Environmental Conversation Law, 30 March 2012
44. The Environmental Conversation Rule, 2014
45. Environmental Impact Assessment Procedure, December 2015
46. National Environmental Quality (Emission) Guideline (NEQG), December 2015
47. National Myanmar Environmental Policy, 2019
48. Foreign Investment Rule, 2013
49. Myanmar Investment Law, 2016
50. Myanmar Investment Rules, 2017
51. The Export and Import Law, 2012
52. Myanmar Insurance Law, 1993
53. The Commercial Tax Law, 1990 (Amended 2014)
54. The Amended Law for Factories Act, 1951 (Amended in 2016)
55. The Private Industrial Enterprise Law, 1990
56. The Prevention of Hazard from Chemical and Related Substances Law, 2013
57. Petroleum and Petroleum Product Law, 2017
58. Industrial Use Explosive Substances Law, 2018
59. The Law on Standardization, 2014
60. The Labor Organization Law, 2011

61. Labor Dispute Settlement Law, 28 March 2012
62. The Social Security Law, 2012
63. The Employment and Skills Development Law, 2013
64. The Worker's Compensation Act, 1923
65. Payment of Wages Law, 2016
66. The Minimum Wage Law, 2013
67. The Leave and Holidays Rules (1951, partially revised in 2018)
68. Public Health Law, 1972
69. Prevention and Control of Communicable Disease Law, 1995 (Amendment in 2011)
70. Occupational Safety and Health Law, 2019
71. Natural Disaster Management Law, 2013
72. Myanmar Engineering Council Law, 2013
73. Myanmar Fire Brigade Law, 2015
74. Protection and Preservation of Cultural Heritage, 1998
75. The Protection and Preservation of Ancient Monument Law, 2015
76. The Conservation of Water Resources and Rivers Law, 2016
77. Underground Water Act, 21 June 1930
78. The Electricity Law, 2014
79. The Motor Vehicles Law, 2015
80. The Forest Law, 3 November 1992
81. National Land Use Policy, 2014 October
82. The Protection of Wildlife and Conservation of Natural Areas Law, 1994 (Amended in 2018)

5. Surrounding Environment

Environmental Baseline Study

For environmental baseline, data were collected by onsite measurements analysis during operation phase on 23 December 2022. On-site measurement was taken by Temperature & Humidity, Air quality, Noise level, Odor intensity, operation light condition, wastewater and drinking water testing at the factory. Moreover, secondary data collection of proposed project site area such as socio-economic condition, physical/ biological environment, weather data were collected from official township data was obtained from Regional Data of East Dagon Township.



Environmental Baseline Study Points

Survey Result in Proposed Project

Type	Results	Guideline Value
Weather Condition		
Indoor Temperature	38.3 °C	-
Relative Humidity	58.2 %	-
Air Quality		
PM ₁₀	26.49 µg/m ³	50
PM _{2.5}	16.53 µg/m ³	25
SO ₂	5.97 µg/m ³	20
NO ₂	10.25 µg/m ³	40
O ₃	35.92 µg/m ³	100
CO	0.53 µg/m ³	No Guideline
VOC	0.02 ppm	No Guideline
Noise Level		
Project Site	59.6 dBA	70 dBA
Odor Intensity		
OI	0.35 ppm	-
Light		
Operation Area	328 Lux	300

Polishing	1054 Lux	1000
Stone Setting	1356 Lux	1000
Drying Room	581 Lux	600
QC	724 Lux	600
Packing	637 Lux	600

Treated water and drinking water testing results are shown detail in 5.2.6 Wastewater Testing and 5.2.7 Drinking water Testing.

The contents of CO and VOC concentration level are acceptable and particulate matter (PM₁₀, PM_{2.5}) and gases level of Ozone (O₃), Nitrogen Dioxide (NO₂) and Sulfur dioxide (SO₂) are also within the National Environmental Quality (Emission) Guideline. Noise source monitoring at the project site overall level of noise in the workshop area is acceptable when compared with National Environmental Quality (Emission) Guideline.

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. 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.

6. Impact Assessment and Mitigation Measure

The assessment of each impact is based on consideration of the magnitude, duration, extent and probability of activities, which are going to be carried out during operation phases.

Impact Assessment Parameter and Its Skill

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.

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

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

In operation phase, there are 4 moderate significance impact, 2 low significant impacts and 2 very low significant impacts. All of the impacts during operation phases can be minimized by using mitigation measures and implementing Environmental Management Plan that is described detail in 6.4.

Perdition of Significant Impacts

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
Construction Phase; It is not assessed in this phase, because of construction is already completed during IEE preparation.							
Operation Phase							
Impact on Environmental Resource							
Air	<ul style="list-style-type: none">Dust and GHGs emission from vehicles used for transporting raw materials and final productsEmission from emergency diesel generator and vehicle movement	3	4	2	4	36	Moderate
Soil	Engine oil leaks, spills at diesel storage and during fuel refueling.	1	4	1	1	6	Insignificant
Noise and Vibration	Generating noise from the production machinery	2	4	2	2	16	Low
Impact on Ecological Resources							

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
Flora and fauna on terrestrial and aquatic life	Operation of the jewelry factory	1	4	1	1	6	Insignificant
Impact on Human							
Fire	<ul style="list-style-type: none"> Poor electrical installations Waste disposed area, raw materials and chemical storage 	3	5	2	4	40	Moderate
Occupational Safety	<ul style="list-style-type: none"> Accidental cases cause by operating machines. Unloading, pressing and packaging activities. Accidental cases of thermic fluid heater 	3	4	1	4	32	Moderate
Health	<ul style="list-style-type: none"> Influx of people Noise from the generating of the emergency generators 	2	4	1	2	14	Very Low
Waste Generation Impact							
Solid Waste	<ul style="list-style-type: none"> Waste from packaging materials Waste from kitchen, dormitory and office. 	3	4	1	4	32	Moderate
Liquid Waste	<ul style="list-style-type: none"> Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory. 	2	4	2	2	16	Low
Hazardous Waste	<ul style="list-style-type: none"> Used oil and lubricant discharged from the maintenance of vehicles and machines. 	2	4	1	2	14	Very Low
Decommissioning Phase							
Air pollution	<ul style="list-style-type: none"> Decommissioning of buildings and related materials Transportation of demolished materials 	3	1	1	4	20	Low
Water pollution	<ul style="list-style-type: none"> Sewage form decommissioning workers Demolition machinery equipment 	3	1	1	3	15	Low

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
Soil Contamination	<ul style="list-style-type: none"> Decommissioning of buildings and related materials Transportation of demolished materials 	3	1	1	3	15	Low
Noise Pollution	<ul style="list-style-type: none"> Decommission activities Transportation of demolished materials 	3	1	1	3	15	Low
Waste disposal	<ul style="list-style-type: none"> Sewage system Demolished debris such as bricks, concrete materials 	2	1	1	3	12	Very Low
Hazardous waste	Used lubricants from decommissioning vehicles and machines	2	1	1	3	12	Very Low
Occupational Health and Safety (Accidents, Injuries)	<ul style="list-style-type: none"> Decommissioning activities Transportation of demolished materials 	3	1	2	3	18	Low
Social-economic Condition	Temporary job opportunities for local people	-	-	-	-	-	Positive Impact

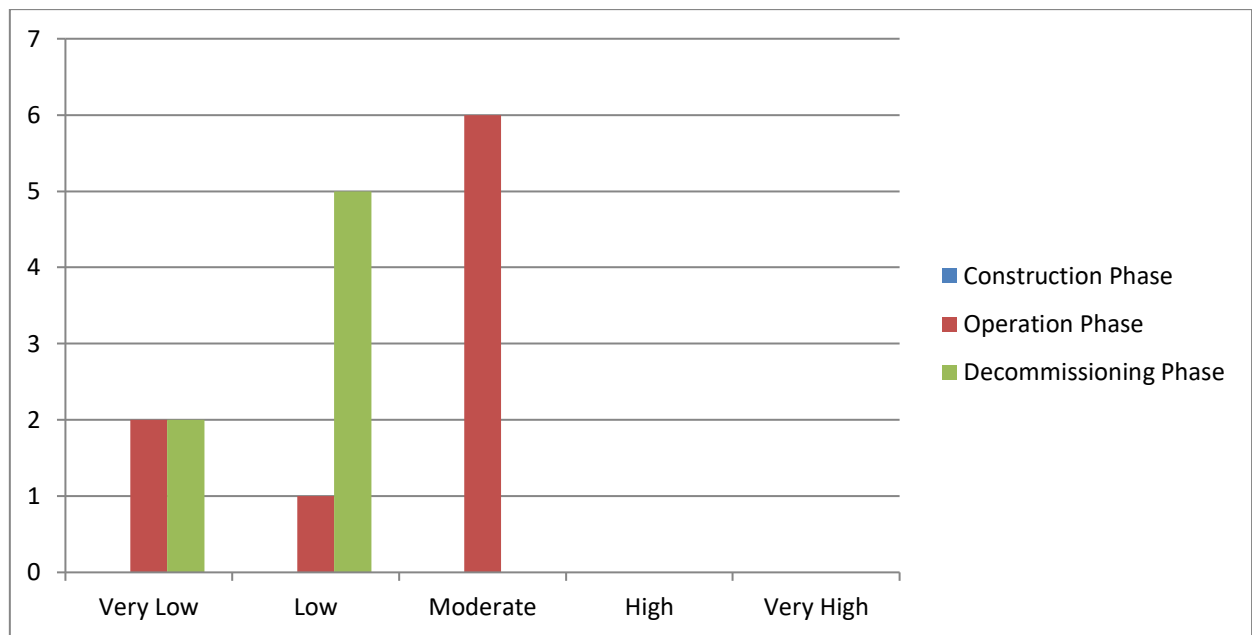
The project activities may cause impacts on environmental resources, ecological resources, human and waste disposal. The potential impacts will occur in operation and decommissioning phases. The summary of impacts with respect to project activities and mitigation measures are described as below:

Evaluation of mitigation measure

Categories	Source of Impact	Mitigation Measure
Air	<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 vehicle movement 	<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. Ensuring vehicles, compressor and generator are well maintained.
Soil	<ul style="list-style-type: none"> Engine oil leaks, spills at diesel storage and during fuel refueling. 	<ul style="list-style-type: none"> No Mitigation Measure

Categories	Source of Impact	Mitigation Measure
Noise and Vibration	<ul style="list-style-type: none"> Generating noise from the production machinery 	<ul style="list-style-type: none"> To control noise from sewing line and machinery movement, earmuffs and earpieces should be provided for employees.
Flora and fauna on terrestrial and aquatic life	Operation of drying fruits, nuts and vegetables	<ul style="list-style-type: none"> No Mitigation Measure
Fire	<ul style="list-style-type: none"> Poor electrical installations Waste disposed area raw materials and raw storage 	<ul style="list-style-type: none"> To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. 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.
Occupational Safety	<ul style="list-style-type: none"> Accidental cases cause by operating machines. Unloading, mixing, cutting, pressing and packaging activities. Accidental cases of thermic fluid heater 	<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. Personal Protective Equipment (PPEs) 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.
Health	<ul style="list-style-type: none"> Influx of people Noise from the generating of the emergency generators 	<ul style="list-style-type: none"> Manage the drainage systems of the factory to prevent health risk of the workers.

Categories	Source of Impact	Mitigation Measure
		<ul style="list-style-type: none"> The maximum allowable noise level for workers is 90dB(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.
Solid Waste	<ul style="list-style-type: none"> Residual pieces of packing jewelry and paper box Waste from packaging materials Waste from kitchen, dormitory and office. 	<ul style="list-style-type: none"> Provides separate garbage bins at each building. All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area Final wastes should be disposed by connecting with Yangon City Development Committee
Liquid Waste	<ul style="list-style-type: none"> Production process (fruits washing) Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory. 	<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.
	<ul style="list-style-type: none"> Treated water from chemical treatment plant 	<ul style="list-style-type: none"> Regular inspection on treatment plant, Regularly check the final output treated water.
Hazardous Waste	<ul style="list-style-type: none"> Used oil and lubricant discharged from the maintenance of vehicles and machines. Chemical Containers 	<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 disposed by connecting with Yangon Township municipal)



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.

7. Environmental Management Plan

The Environmental Management Plan (EMP) formulated with the anticipated impacts, mitigation measures, management and monitoring plans during all phases are implemented. B.C.C JEWELRY MFG. 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 project proponent has performed Corporate Social Responsibility (CSR) plan and Emergency Preparedness for the benefits of residents and local community.

- ❖ Air Pollution/Dust Management Plan
- ❖ Water Consumption Management Plan
- ❖ Odor Management Plan
- ❖ Wastewater Management Plan
- ❖ Noise Management Plan
- ❖ Solid Waste Management Plan
- ❖ Fire Management Plan
- ❖ Occupational Safety and Health Management Plan
- ❖ Energy Management Plan
- ❖ Emergency Response and Disaster Management Plan

- ❖ Capacity Building and Training Plan
- ❖ Grievance Redress Mechanism (GRM)
- ❖ Corporate Social Responsibility (CSR) Plan

The environmental monitoring plan, schedule and budget plans of B.C.C JEWELRY MFG. COMPANY LIMITED are described and shown detail in **Section (7.6), Table (7-1) and Section (7.7) Table (7-2).**

The project is located in East Dagon Industrial Zone, Dagon Myothit (East) Township, Yangon Division and there are no affected local people by project. The project information and this IEE will be accessible to public and stakeholders via.

Myanwei Website: www.myanweiconsulting.com

Myanwei Facebook Page: <https://www.facebook.com/Myanwei-Environmental-Solutions-Company-Limited>.

8. Public Consultation

Public consultation during preparation of IEE report was conducted on 9th March 2023, 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.

Time and Date	Thursday, 9 th March 2023 10:00 AM – 11:15 Am
Venue	B.C.C Jewelry MFG. Company Limited's meeting room. (Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region)
Agenda	<ul style="list-style-type: none">• Introduction of B.C.C Jewelry MFG. Company Limited.• Introduction of Initial Environmental Examination• Environmental Baseline Study of the proposed project• Impact Assessment, Environmental Mitigation Measure• Environmental Management Plan and Monitoring Plan• Performances of B.C.C Jewelry MFG. Company Limited
Organized by	Myanwei Environmental Solutions Company Limited

9. Conclusion

The proposed artificial jewelry 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.

CHAPTER 1 PROJECT DESCRIPTION

1.1. INTRODUCTION

This report describes the findings of the Initial Environmental Examination (IEE) for the Manufacturing of Artificial Jewelry by B.C.C JEWELRY MFG. 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), said project requires an Initial Environmental Examination (IEE) to meet the environmental assessment requirements of Notification No. Yaka- 1/3/4 (EIA) (2326/2020) on 14 August 2020. Therefore, B.C.C JEWELRY MFG. COMPANY LIMITED commissioned MYANWEI ENVIRONMENTAL SOLUTIONS CO.,LTD. (Myanwei) for IEE report study.

The purposes of the proposed project implementation are to make foreign income to the country, to get new technologies and knowledges and to provide employment opportunities for Myanmar's citizen.




1.2. CONSTRUCTION PHASE

The period of the project identification of construction phase is started in 28-8-2022 to 31-12-2023 (due to Covid-19 Pandemic, the construction period from 1st May 2020 to 31st December 2021 (1 year and 8 months) will not be counted), about 2 year and it is machinery and equipment installation period. Project proponent was leased the project area from previous owner for 30 years; this area already constructed the three storey building.

1.3. OPERATION PHASE

The proposed project is joint venture with foreign shares (75%) and myanmar's shares (25%). The investment value of the project is 3 million US\$. The proposed project will be implemented from 2022 to 2052. The factory aims to manufacture of artificial jewelry on CMP basis. Artificial jewelry manufacturing needs about 385 employees and 380 employees are local people, 5 employees are foreigner who manage the company by their dynamic, enthusiastic, experienced, and cooperative skills. The estimated production rate is (4,500,00 – 14,141,334) pieces during first year to 30 years of production rate. The raw materials were imported from local, China and Hongkong and then finished good products exported to United State of America. The project life span is shown in Table 1-1

Table 1-1 B.C.C Jewelry MFG. Company Limited's Project Life Span

Phase	2021	2022	2023	2053		
Construction Phase						
Operation Phase						
Decommissioning Phase						

1.4. LOCATION OF THE PROJECT SITE

The proposed project is located at between Latitude 16°53'28.57"N, Longitude 96°13'32.26"E and Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region. The location map of the proposed project size is shown in Figure 1-1.

1.4.1. Relative Projects, development activities and Cumulative Impacts

The East Dagon Industrial zone is divided into 7 parts such as plastic and household goods, chemical products, electronic goods, foodstuff, wood-base, warehouse and garment. On the sidelines of the proposed project, there are Myanmar Muse Delta Co.,Ltd. to the east, land vacancy to the north, Jiu Rui Plastic Products Company Limited and Bagan Soft Drink Production to the south. The Cumulative Impact Assessment is the process of assessing potential effects on community of neighbouring area of the proposed project caused by the combination of known projects in this zone. Therefore, cumulative health impact is unable to assess.

However, assumption can be made that creation of job opportunities will cause population influx in the surrounding area. There will be a positive effect on local business as a result of the presence of operation workers using local facilities during the operation. Increase job opportunities for the local people will promote wellbeing.

For the operation phase it is more realistic and rational to do the cumulative impact assessment by the factories based on their business and the existing and future private and public developments and projects. The residual impacts for operation phase in combined with the potential impacts of the anticipated future developments to produce cumulative impacts and this will be conducted by respective of the each factory

The domestic sales and export to Europe and United States that the project can create and also train local jewelry talents and create considerable tax benefits for the country, upgrade labor

skills, and promote the jewelry level of the entire country. The proposed project is being implemented to cultivate Myanmar Silver jewelry craftsmanship, to help labor employment, and to the company's sustainable business goals.

Table 1-2 Relevant Mitigation Measures for Cumulative Impacts

No	Cumulative Impacts	Significance Impacts	Mitigation Measures
1	Increase in pollutant concentrations in surface water	Negligible	<ul style="list-style-type: none"> - Following EMP and monitoring plan - Engaging developers of other developments/ projects for effective collaboration or coordination
2	Increase in pollutant concentrations in ground water	Negligible	<ul style="list-style-type: none"> - Following EMP and monitoring plan - Engaging developers of other developments/ projects for effective collaboration or coordination
3	Incremental contribution of air pollutants	Negligible	<ul style="list-style-type: none"> - Following EMP and monitoring plan - Engaging developers of other developments/ projects for effective collaboration or coordination - Collaborative engagement in other regional cumulative impact management strategies - Participation in regional monitoring programs to assess the realized cumulative impacts and efficacy of management efforts <p>(The last two points involve collaborative engagement with other stakeholders, including project proponents, government agencies, affected communities, conservation groups and expert groups.)</p>
4	Increased community safety and health issues	Low	<ul style="list-style-type: none"> - Following EMP and monitoring plan - Engaging developers of other developments/ projects for effective collaboration or coordination - Consultation with community and providing education programs related to community health and safety issues - Providing additional community safety and health measures based on discussion with the community

1.4.2. Site Description

The total land area of the proposed project is 4.593 acres. There is three storey building: first floor has electroplating and drying process, second floor has casting, molding, welding, sanding, polishing and stone setting process, third floor has dormitory and kitchen. Factory aerial photo and factory layout drawing are able to seen in Figure 1-2 and Figure 1-3.

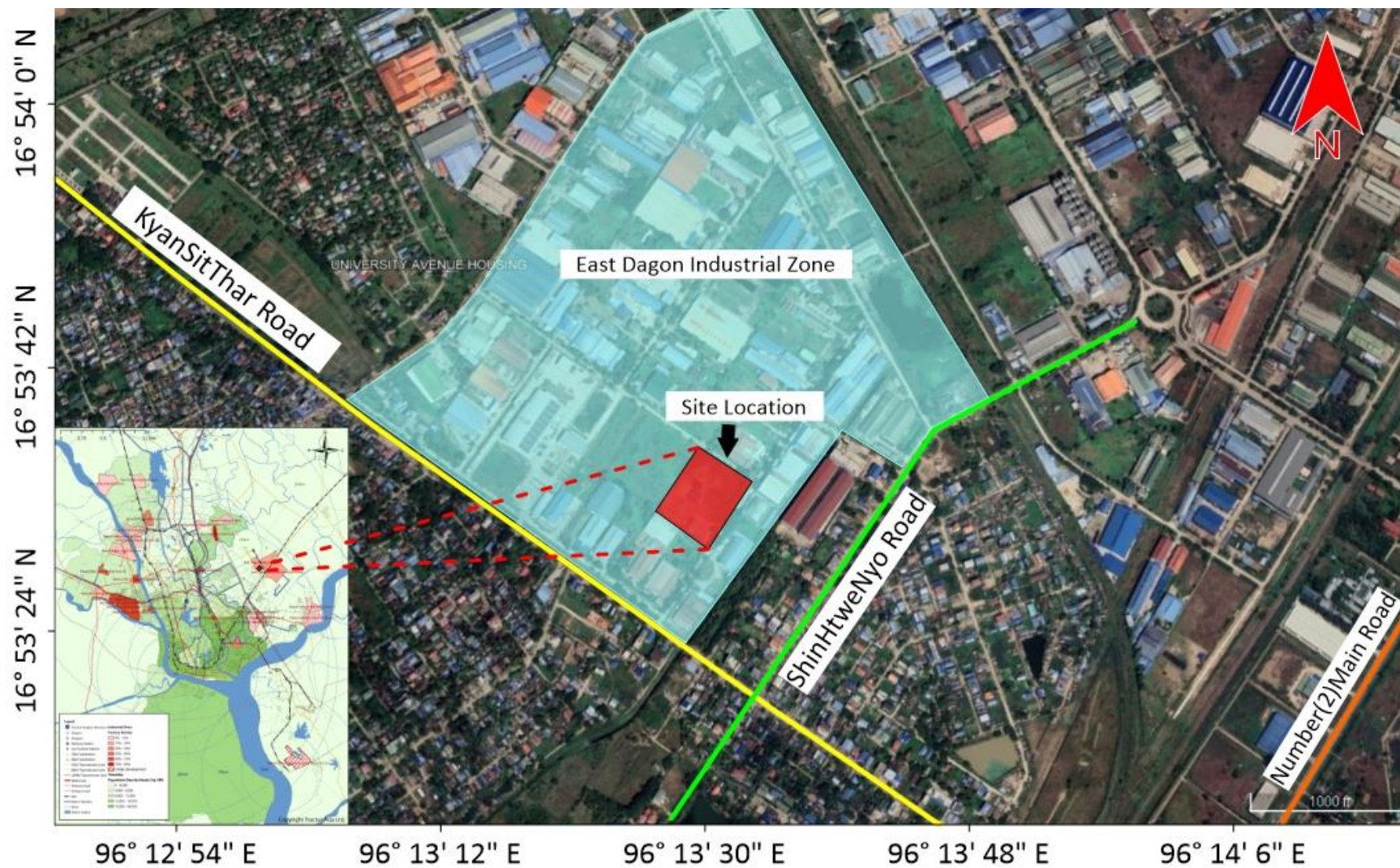


Figure 1-1 Location Map of B.C.C JEWELRY MFG. COMPANY LIMITED



Figure 1-2 Factory Aerial Photo

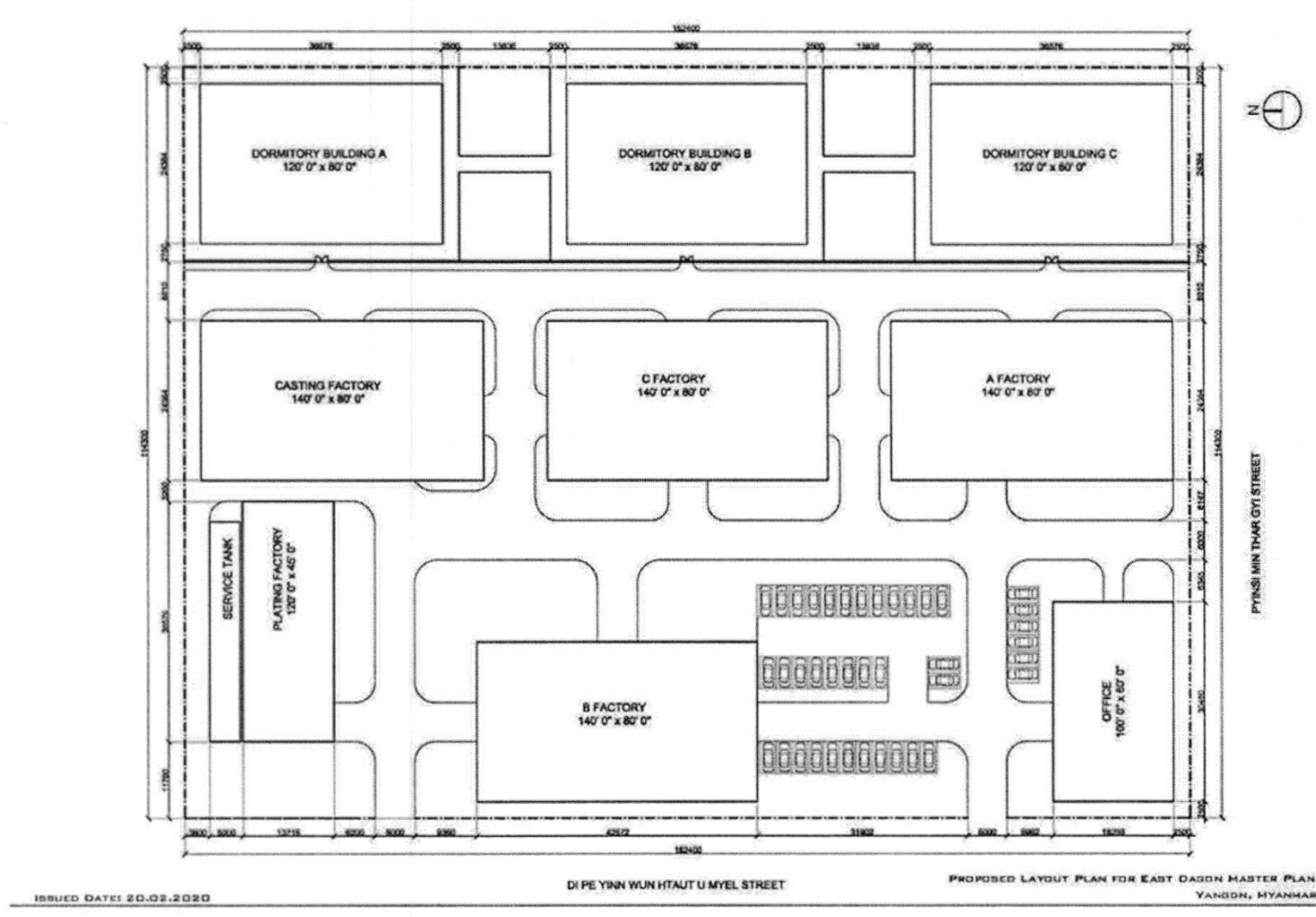


Figure 1-3 Future Project Layout Photo



Figure 1-4 Adjacent Location Map of Proposed Project

1.5. PRODUCTION PROCESS

The factory's production management department receives the order. After reviewing the order, check the mold, filling wax (requires QC), tree up, cut the components after founding (require QC), and then assemble. After welding, grinding and polishing the inlay stone (requires QC), QC before plating (protecting silver jewelry from fading), plated with K gold, white gold, two-color or rose gold according to the order, and after drying, they will be sent to the inspection department to check whether there are any defects. Beads or some products need to be plated and then stick to stone or painted. Quality inspection is carried out before shipment, since quality is the life of the factory, it is then packaged, boxed, and invoiced according to customer requirements.

The first production process after receiving an order is casting with existing molds. According to the current plan, there should be about 50 to 100 workers at beginning including wax injection and molding process. The second process that requires skill is stone setting. This technique is more difficult, but all it needs is to be careful and patient, because the quality of a piece of jewelry really depends on the technique of stones setting. This stone setting technique becomes very important. Around 60-100 workers at stone setting/wax setting is sufficient. The next is the polishing process, which is simply surface treatment. Half is manual and half is assisted by machines. This technology transfer will be the easiest. The no more than 50 workers needed. Electroplating is one of the most important processes. Basically, no matter it is silver jewelry or K gold jewelry, it must be electroplated. This procedure will decide whether the jewelry be accepted by the customers. After all, it is a combination of chemical change procedures, and the usage of electroplating potion needs to be precise and consistent so the quality of the jewelry is stable and well controlled. The electroplating plant employs about 30 to 50 people including quality control procedure.

1.5.1. Casting

Casting is a very complex process and requires utmost skilled and experienced casters for the desired final product. The wax replicas are placed in steel containers which are then occupied with investment powder and the containers are heated in a chamber to 550°C which solidifies the powder and melts the wax leaving behind a perfect effect.

1.5.2. Plaster

Most jewelry that is manufactured starts off as a wax pattern. Jewelry manufactruers will take the wax pattern and use plaster to create a mold.

1.5.3. Wax carving

After the design is finished, the next process is to make a wax mold by the entire computer-aided-wax-making machine. In the molding department, the highly skilled technicians need to hand carve all the detail to a finely carved wax.

1.5.4. Molding

Jewelry mold making is the procedure used to insure that jewelry tiems can be accurately duplicated at any time future. The mold making process begins with the creation of a metal model.

Models can be as simple as a basic ring or complex as jewelry containing multiple interlinking parts used to create elaborate multicolor jewelry.

1.5.5. **Welding**

Welding is a fabrication process whereby two or more parts are fused together by means of heat, pressure or both forming a joint as the parts cool. The completed welded joint may be referred to as a weldment.

1.5.6. **Sanding**

The next stage for ensuring jewelry is on the right path for a good finish, is to ensure you don't forget to sand the jewelry.

1.5.7. **Polishing**

The goal of polishing is to add some shine to the entire piece of jewelry. Polishing comes after the stone setting process, and it can either be done by hand or by a machine. When hand-polishing jewelry, the craftsman uses different tools like solid buff, soft buff, coin buff, single line ball buff, green rouse for shine, platinum polishing rouse, black luster for removing casting/filling layers, red rose and white sheen to remove roughness.

1.5.8. **Stone Setting**

Stone setting is the important step of the custom jewelry manufacturing process. Setting gemstones in a ring or other jewelry requires various techniques and settings. Settings are the methods of integrating a precious stone to metal. To create more intricate or complex designs, jewelers can use multiple settings during the stone setting process.

1.5.9. **Electroplating**

Considerable technical improvements have been made in plating. The plating is done by electro-deposition, rhodium, copper, chromium or other metals being practiced by passing an electric current through a solution and then channelizing the plating metal from the piece of pure metal to the object set aside in the solution.



Casting



Welding & Sanding



Stone Setting



Electroplating



Drying



Quality Inspection

Figure 1-5 Production Photos of B.C.C JEWELRY MFG. COMPANY LIMITED

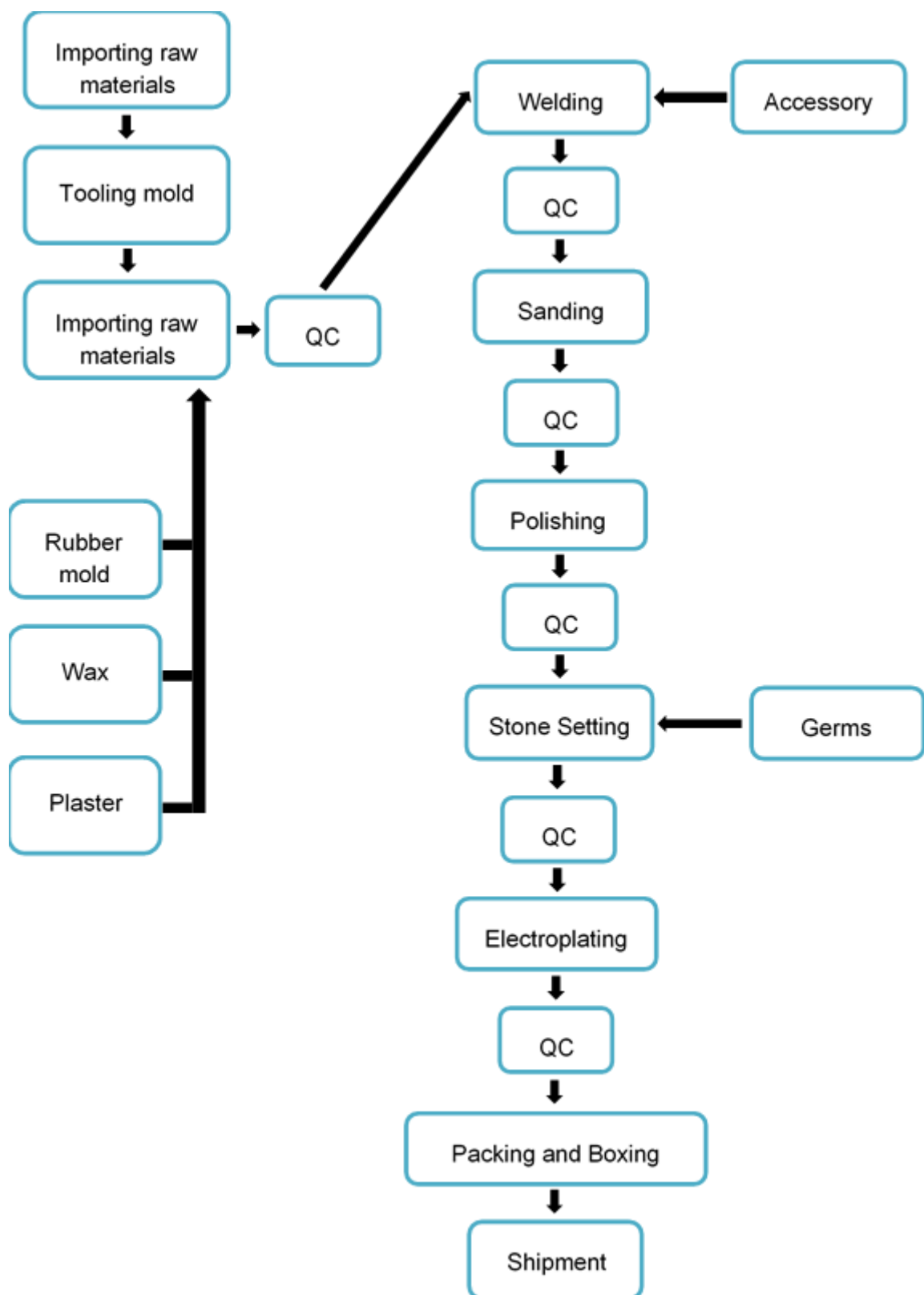


Figure 1-6 Production Process Diagram

Table 1-3 Annual Production Rate

No.	Description	Unit	Year 1	Year 2	Year 3 to 30
1	Bracelet	pcs	405,000	425,250	489,038
2	Ring	pcs	225,000	236,250	271,688
3	Earring	pcs	2,700,000	2,835,000	3,260,250
4	Pendant	pcs	855,000	897,750	1,032,413
5	Necklace	pcs	315,000	330,750	380,363



Bracelet



Ring



Earring



Pendant



Necklace

Figure 1-7 Products Photo

1.6. UTILITIES

1.6.1. Raw Material

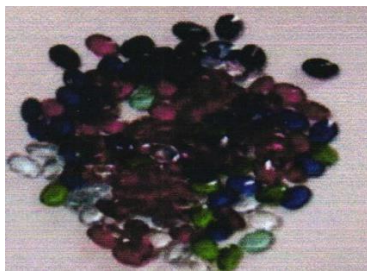
The main Raw Materials are silver/semi-manufactured silver 925, brass, synthetic stone, plating, silver accessory and etc. which imported from China and Hongkong and plaster powder and wax which from local.

Table 1-4 List of Production input needed (Import)

Material	Unit	HS CODE	Year 1	Year 2	Year 3 to 30
			Usage	Usage	Usage
Main					
Silver/Semi-manufactured silver 925	kg	7106.91.00/ 7106.92.00	3,082.50	3,236.63	3,722.12
Brass	kg	7107.00.00	577.97	606.87	697.90
Synthetic stone	pcs	7104.10.20	246,115,317	258,421,082.85	297,184,245.28
Plating	by pcs	-	4,500,000	4,725,000.00	5,433,750.00
Accessory					
Silver accessory	kg	7113.11.10	1,364.25	1,432.46	1,647.33
Brass	kg	7107.00.00	5,093.25	5,347.91	6,150.10

Table 1-5 List of Production input needed (Local)

Material	Unit	HS CODE	Year 1	Year 2	Year 3 to 30
			Usage	Usage	Usage
Plaster Powder	bag	LOCAL	2,325.00	2,441.25	2,807.44
Wax	Box (11.4kg)	LOCAL	37.50	39.38	45.28



Synthetic Glass Stone



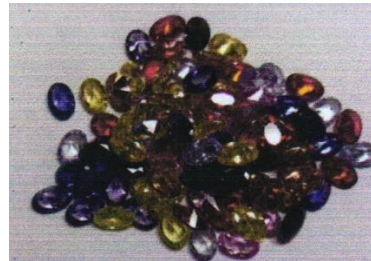
Synthetic Opal



Synthetic Crystal



Clear synthetic stone



Colored synthetic stone



Imitation Pearl

Figure 1-8

Synthetic Stone Photos

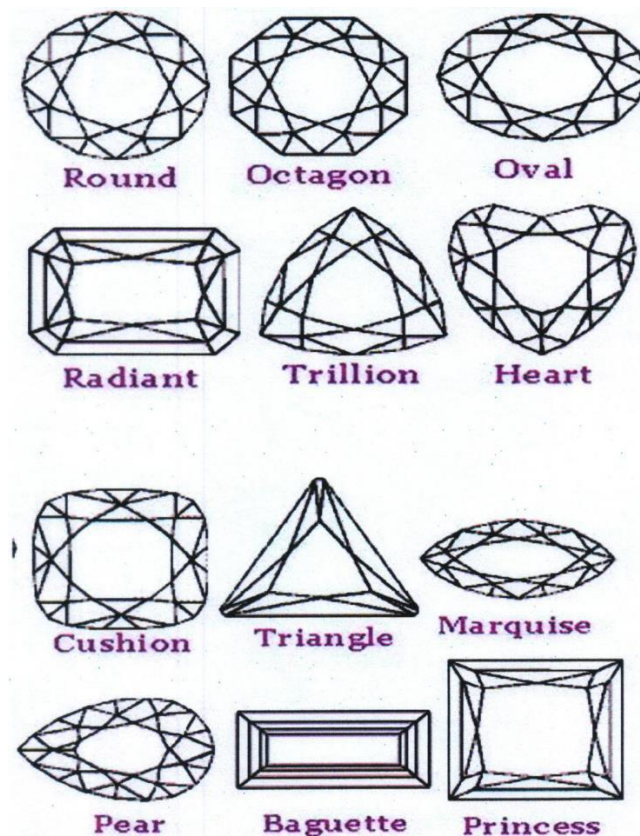


Figure 1-9

Various Shapes of Synthetic Gems

1.6.2. Machinery and Equipment

List of machinery and equipment required for B.C.C JEWELRY MFG COMPANY LIMITED is following in Table 1-6.

Table 1-6 List of Machinery and Equipment to be imported from China

No	Particular	HS Code	Quantity
1	3D Laser metal fusion technology machine	85141090	1
2	Flask oven	85439090	12
3	Electrolysis machine	84798190	4
4	Barrel machine	84798190	6
5	Dry barrel machine	84671100	6
6	Wax injection machine	84799090.9	15
7	Polishing machine	84642010	20
8	Frequency magnetic polishing machine	84743900	20
9	Vaccum cleaner	85081100	20
10	Laser machine	84719000.9	6
11	Word printer	48219000	6
12	Opener	84159090	4
13	Air compressor	84159090	2
14	Washing machine	84863041	5
15	Vacuum pump	84149090	6
16	Vulcanizer machinefor mould making	84642090	12
17	Water welder	84688000	12
18	Ultrasound	84863041	2
19	Flexible power carver	84139200	80
20	Induction melting furnace	85016100	3
21	Powder press machine	84798200.9	3
22	Electroplating tank	85433000.9	30
23	Anode mesh	81089090	30
24	Sink	90321000	50
25	Dryer	85143000	4
26	Water chiller	84189910	1
27	Air purification tower	84213910	5
28	Ultrasonic cleaning tank	84798190	10
29	Container type sewage treatment unit	28401900	2
30	Deionizer	84219910	2
31	Rectifier	90269000	30
32	Thermostat	90328990.9	30
33	Swing controller	95043010	30
34	Fliter pump	84212990	30
35	Ultrafiltration machine	84212110	2

No	Particular	HS Code	Quantity
36	Ultrasonic sounder	85432010	8

Table 1-7 List of Machinery to be Purchase From Local

No	Particular	A/C Unit	Quantity
1	Power generator (250KVA)	unit	3
2	Scale	unit	10
3	Electronic scale	unit	10
4	Working desk	unit	200
5	Quality control work desk	unit	30
6	Packing work desk	unit	12
7	Emergency light	unit	30
8	Monitoring equipment	set	1



Electrolysis machine



Electroplating tank



Ultrasonic cleaning tank



Rectifier



Sink



Dryer

Figure 1-10 Machinery Photos

1.6.3. Human Resource

Human resource required by foreign experts/technicians and local persons for administrative and production process are about 385 persons which are also described in The annual working day is 285 days. Daily working time (Monday to Friday) is 8:00 AM to 5:00 PM, lunch time at 12:00 PM to 01:00 PM and Saturday at 8:00 AM to 12:00 PM. Factory close at Sunday and public holidays.

Table 1-8. The annual working day is 285 days. Daily working time (Monday to Friday) is 8:00 AM to 5:00 PM, lunch time at 12:00 PM to 01:00 PM and Saturday at 8:00 AM to 12:00 PM. Factory close at Sunday and public holidays.

Table 1-8 Employment List of B.C.C JEWELRY COMPANY LIMITED (Local)

No	Type of Personal	Department	Year - 1	Year – 2	Year 3 to30
			No of Personal	No of Personal	No of Personal
1	HR Manager	Administration	1	1	1
2	Accounting	Administration	2	2	2
3	Cashier	Administration	1	1	1
4	Driver	Administration	1	1	1
5	Security	Administration	1	1	1
6	Janitor	Administration	1	1	1
7	Warehouse	Warehouse	3	3	3
8	Production Supervisor	Production	1	1	1
9	Order follower	Production	2	2	2
10	Production Clerk	Clerk Office	6	6	6
11	Section Supervisor	Wax Injection	1	1	1
12	Technical Worker	Wax Injection	33	33	33

13	Section Supervisor	Casting	1	1	1
14	Technical Worker	Casting	17	17	17
15	Section Supervisor	Molding	1	1	1
16	Technical Worker	Molding	35	35	35
17	Section Supervisor	Welding	1	1	1
18	Technical Worker	Welding	45	45	45
19	Section Supervisor	Setting	1	1	1
20	Technical Worker	Setting	60	60	60
21	Section Supervisor	Wax setting	1	1	1
22	Technical Worker	Wax setting	60	60	60
23	Section Supervisor	Polishing	2	2	2
24	Technical Worker	Polishing	40	40	40
25	Section Supervisor	Plating	1	1	1
26	Technical Worker	Plating	10	10	10
27	Section Supervisor	Quality Control	1	1	1
28	Quality Controller	Quality Control	20	20	20
29	Section Supervisor	Packing	1	1	1
30	Operator	Packing	30	30	30

Table 1-9 Employment List of B.C.C JEWELRY COMPANY LIMITED (Foreign)

No	Type of Personal	Department	Year - 1	Year – 2	Year 3 to30
			No of Personal	No of Personal	No of Personal
1	General Manager	Administration	1	1	1
2	Plant Manager	Administration	1	1	1
3	Production Manager	Administration	1	1	1
4	Technician Manager	Administration	1	1	1
5	Financial Manager	Administration	1	1	1

1.6.4. Water Usage and Requirement

Yangon industrial zone has no centralized water supply system and the factory gets water from the tube wells installed inside the factory compound. The main water use in the proposed project is for domestic usage such as for personal washing, drinking water supply, food preparation, and washing of utensils. The factory has water purifying system for factory's drinking water supply; tapwater are step by step sedimented in 5 water storage tanks, the sedimented pure water are passed through the RO host system and the extracted water is purified and used as drinking water in factory. Water storage tank and drinking water supply for B.C.C JEWELRY MFG COMPANY LIMITED factory are described in Figure 1-11. Main source of water supply will be provided by tube well water (ground water 700 ft deep) in which ground water is pumped by 4 inches PVC pipe. The tube well and RO host system are located at each side of the operation factory building. There are 2 water tanks;

firefighting water storage tank (15'6" x 9'6" x 9'6") and domestic usage water tank (20' x 6'3" x 6'6"). The factory uses water about 90,500 gallons annually for domestic usage. Water used for operation process is about 135,660 gallons annually.



Water storage tanks



RO host system



Tube well



Water Storage Tanks

Figure 1-11 Water facilities of B.C.C JEWELRY MFG COMPANY LIMITED

1.6.5. Chemical Requirement

The factory use chemicals for electroplating process. The chemicals used in electroplating process are Ammonia, Potassium Hydroxide, Electrolytic Degeasing Powder, Wax Water Remover, Palladium Cobalt Supplements, Neutral gold conductive salt and Sodium Cyanide and so on. The factory stored (15,240) kg of chemicals and are stored in chemical warehouse (54'x20'x11'). The factory daily uses about (0.05g – 2kg), (20 mL – 2L) of each chemical for electroplating process. The daily chemical usage of factory is shown in Table 1-10.

Note: MSDS and chemical license needed for the factory operation are still applying. If the required documents are received, we will be reported to Environmental Conservation Department.

Table 1-10 Daily Chemical Usage of B.C.C JEWELRY MFG. COMPANY LIMITED

No.	Chemical Name	Daily Usage
1	Ammonia	1 L
2	Potassium Hydroxide	250 g
3	Zinc oxide	0.05 g
4	Active carbon	0.5 g
5	Gold Remover	0.5 L
6	Yellow Gum	0.05 g
7	Copper Powder	0.2 kg
8	Sodium Hydroxide	500 g
9	Potassium Carbonate	0.2 kg
10	Hydrogen Peroxide	0.05 kg
11	Wax Water Remover	5 kg
12	Electrolytic Degeasing Powder	1 kg
13	360 Silver Gloss Agent (A)	0.2 L
14	360 Silver Gloss Agent (B)	0.2 L
15	3 KBP Cylinder Opener	200 mL
16	3 KBP Supplement	200 mL
17	3 KBP Wetting Agent	50 mL
18	Palladium Cobalt Supplement (A)	100 mL
19	Palladium Cobalt Supplement (B)	100 mL
20	Palladium Cobalt Supplement ©	50 mL
21	Palladium Cobalt Conductive Salt	1 kg
22	Neutral gold Supplement	50 mL
23	Neutral gold Luster	50 mL
24	Neutral gold Conductive Salt	1 kg
25	Gold Acid Supplement	50 mL
26	Acid Gold Glass	50 mL
27	Acid Gold Hardener	20 mL
28	Gold Acid Conductive Salt	1 kg
29	Rose Gold Supplement	50 mL
30	Rose Gold Toner	50 mL
31	Rose Gold Yellowing Agent	20 mL
32	Rose Gold Conductive Salt	1 kg
33	Gold & Silver Surface Glass Agent	50 mL

34	Gold & Silver Surface Tinting Agent	50 mL
35	Gold & Silver Surface Conductive Salt	1 kg
36	380 Supplement	50 mL
37	380 Glass Agent	50 mL
38	380 Wetting Agent	20 mL
39	380 Acid Salt	1 kg
40	380 Conductive Salt	1 kg
41	380 Cobalt Water	50 mL
42	Acid Copper Opener	100 mL
43	Copper Acid Light Agent (A)	20 mL
44	Copper Acid Light Agent (B)	20 mL
45	Copper Acid Light Agent (A) Brand Different	20 mL
46	Swimming Paint	0.05 kg
47	Solvent (A)	50 mL
48	Solvent (B)	50 mL
49	Lactic Acid	20 mL
50	Copper Sulfate	1 kg
51	Nano Protection	0.5 L
52	Electrolytic Protection Powder	0.5 kg
53	White Copper Tin Cylinder Opener	50 mL
54	White Copper Tin Gloss	50 mL
55	Cupronickel Tin Wetting Agent	20 mL
56	White Brass Tin Salt	1 kg
57	Sulfuric Acid	2 L
58	Cupronickel Salt	1 kg
59	Rhodium Substitutue Cylinder Opener	50 mL
60	Rhodium Substitutue Light Agent	50 mL
61	Rhodium Substitutue Humectant	20 mL
62	Special Additve for Rhodium	0.05 mL
63	Sodium Cyanide	2 kg
64	Sulfuric Acid (5L)	1 L
65	Sulfuric Acid (25L)	1 L
66	HCl	5 L
67	Potassium Cyanide	2 kg

1.6.6. Electricity and Fuel Requirement

The proposed project intended to get required electricity supply from sources of energy 315 kVA transformer and 250 kVA & 60 kVA generators which also be kept as the emergency generator if normal electricity supply could not provide for the proposed project. The proposed project's electricity usage is about 5,000-6,000 unit per month. Fuel requirement for generators is 5.7 gallons per day.

Table 1-11 Annual Electricity Requirement

Particulars	Unit	Year 1	Year 2	Year 3
Electricity	kwh	780,000	819,000	941,850



315 kVA Transformer



Generators



Fuel Storage Area

Figure 1-12 Electricity Facilities at B.C.C Jewelry MFG Company Limited Factory

1.7. FACILITIES

1.7.1. Chemical Treatment Plant

Chemicals are used during wastewater treatment in an array of processes to expedite disinfection. Specialized chemicals such as chlorine, hydrogen peroxide, sodium chlorite, and sodium hypochlorite (bleach) act as agents that disinfect, sanitize, and assist in the purification of wastewater at treatment facilities. There are several distinct chemical unit processes, including chemical coagulation, chemical precipitation and chemical neutralization and stabilization.

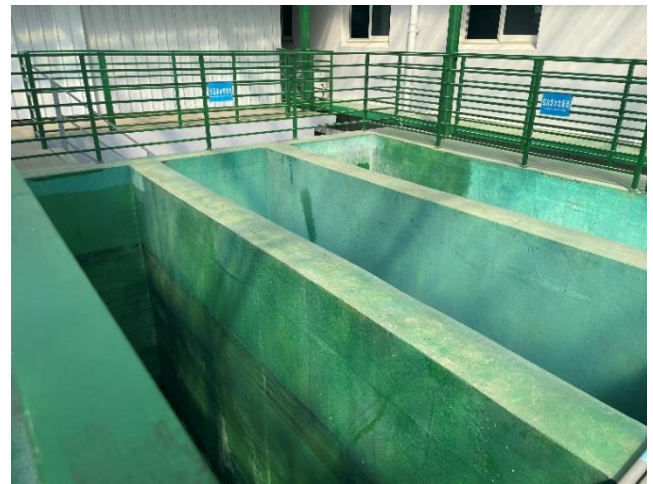
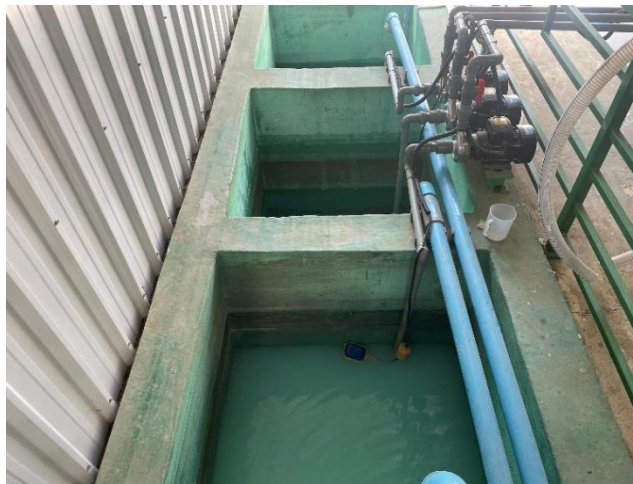
Neutralization involves the addition of chemicals for the purpose of adjusting the pH of the wastewater. This involves the addition of acids (to lower pH) or alkalis (to raise pH) depending on the initial pH of the influent. Chemical precipitation is the most common method for removing dissolved metals from wastewater solution containing toxic metals. To convert the dissolved metals into solid particle form, a precipitation reagent is added to the mixture. A chemical reaction, triggered by the reagent, causes the dissolved metals to form solid particles. Filtration can be used to remove the particles from the mixture.

Chemical coagulation process involves destabilizing wastewater particles so that they aggregate during chemical flocculation. Fine solid particles dispersed in wastewater carry negative electric surface charges (in their normal stable state), which prevent them from forming larger groups and settling. Next, an anionic flocculant is introduced to the mixture. Because the flocculant reacts against the positively charged mixture, it either neutralizes the particle groups or creates bridges between them to bind the particles into larger groups. By adding specialty chemicals, larger formulations of particles will occur which will then settle out in a sedimentation process. After larger particle groups are formed, sedimentation can be used to remove the particles from the mixture.

Chemical treatment plant can treat chemical containing water 50,000 gallons. The reacting agent chemicals used in chemical treatment plants is about 50 gallons per day. The factory's chemical treatment plant discharge treated water 317.54 gallons daily.

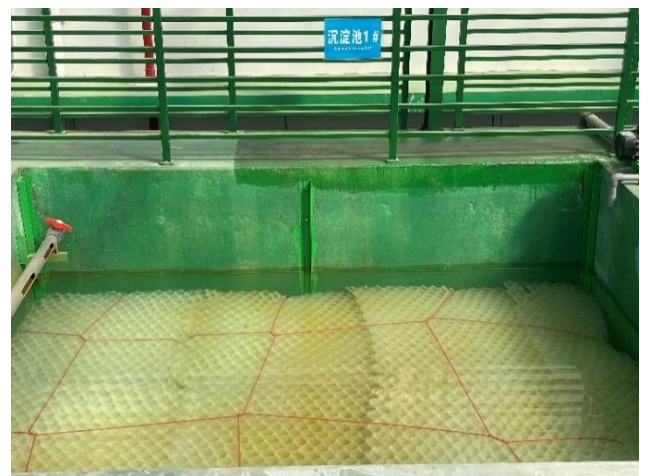


Chemical reagent storage tanks



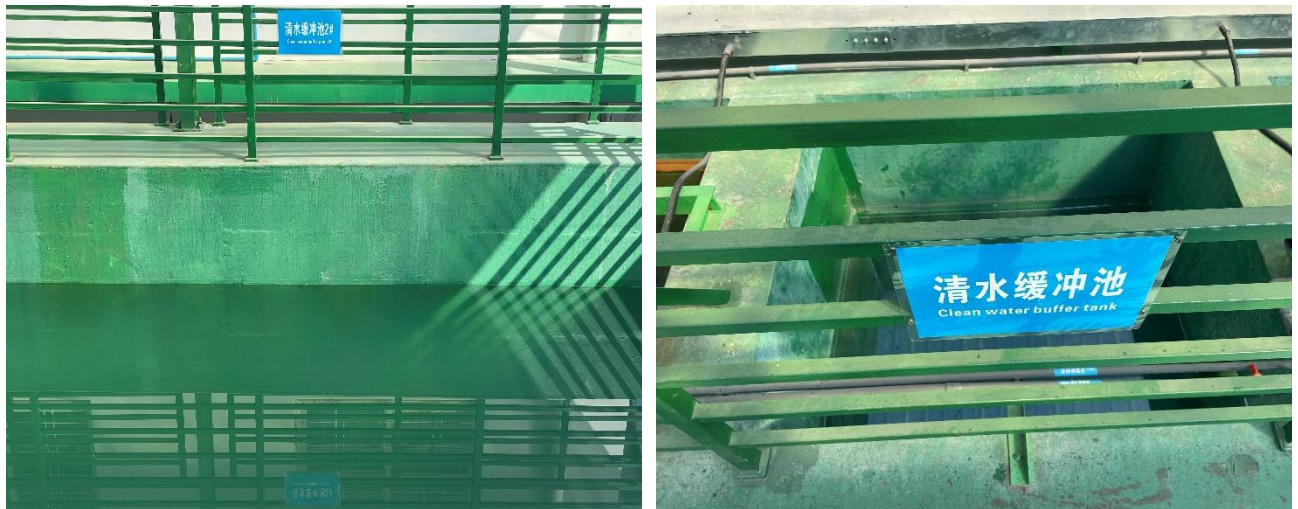
Temporary wastewater storage tanks

Chemical precipitation tanks



pH regulating tanks

Sedimentation tank



Clean water tank

Figure 1-13 Chemical Treatment Plant Photos

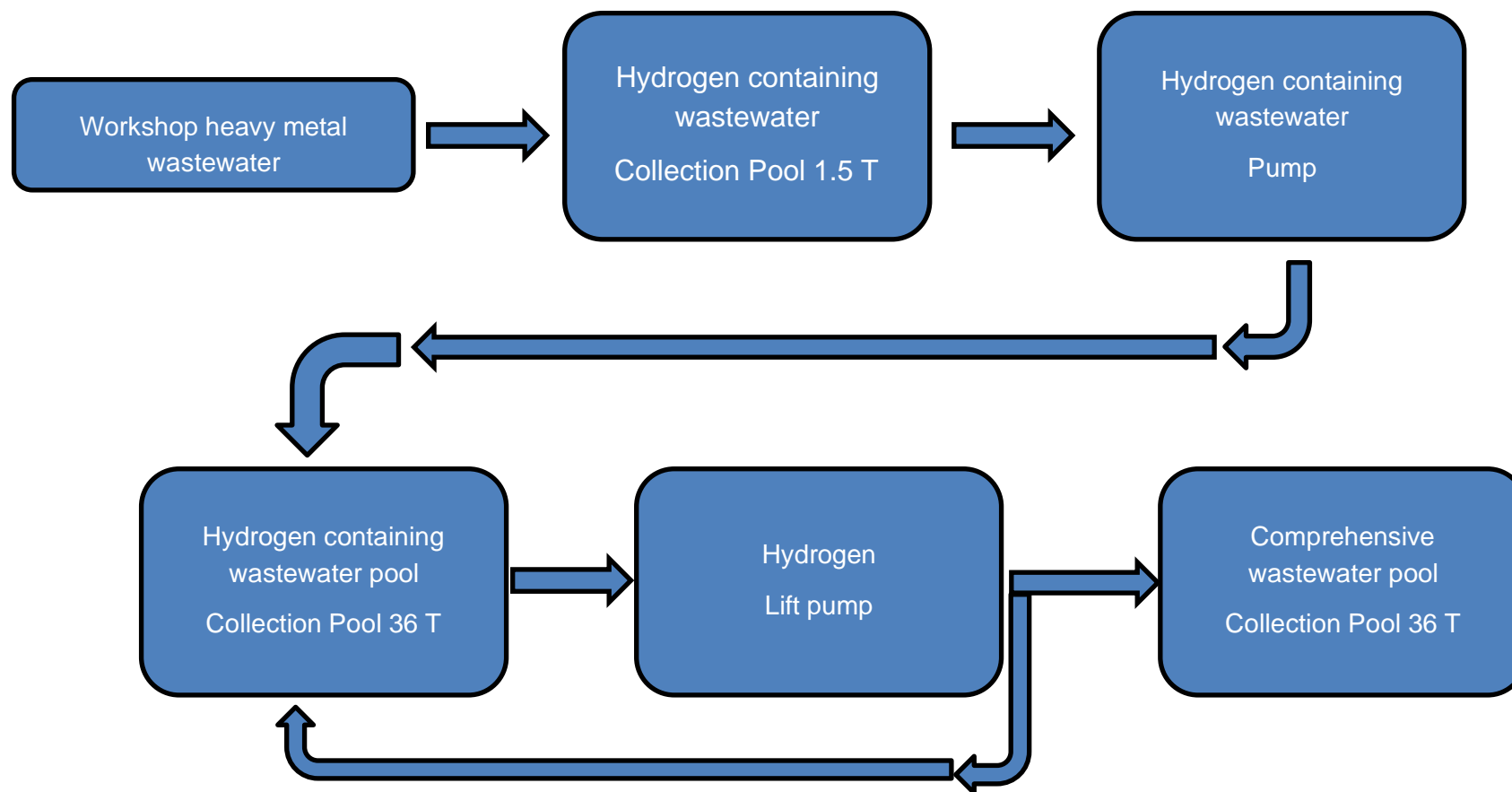


Figure 1-14 Workshop Heavy Metal Wastewater Flow Chart

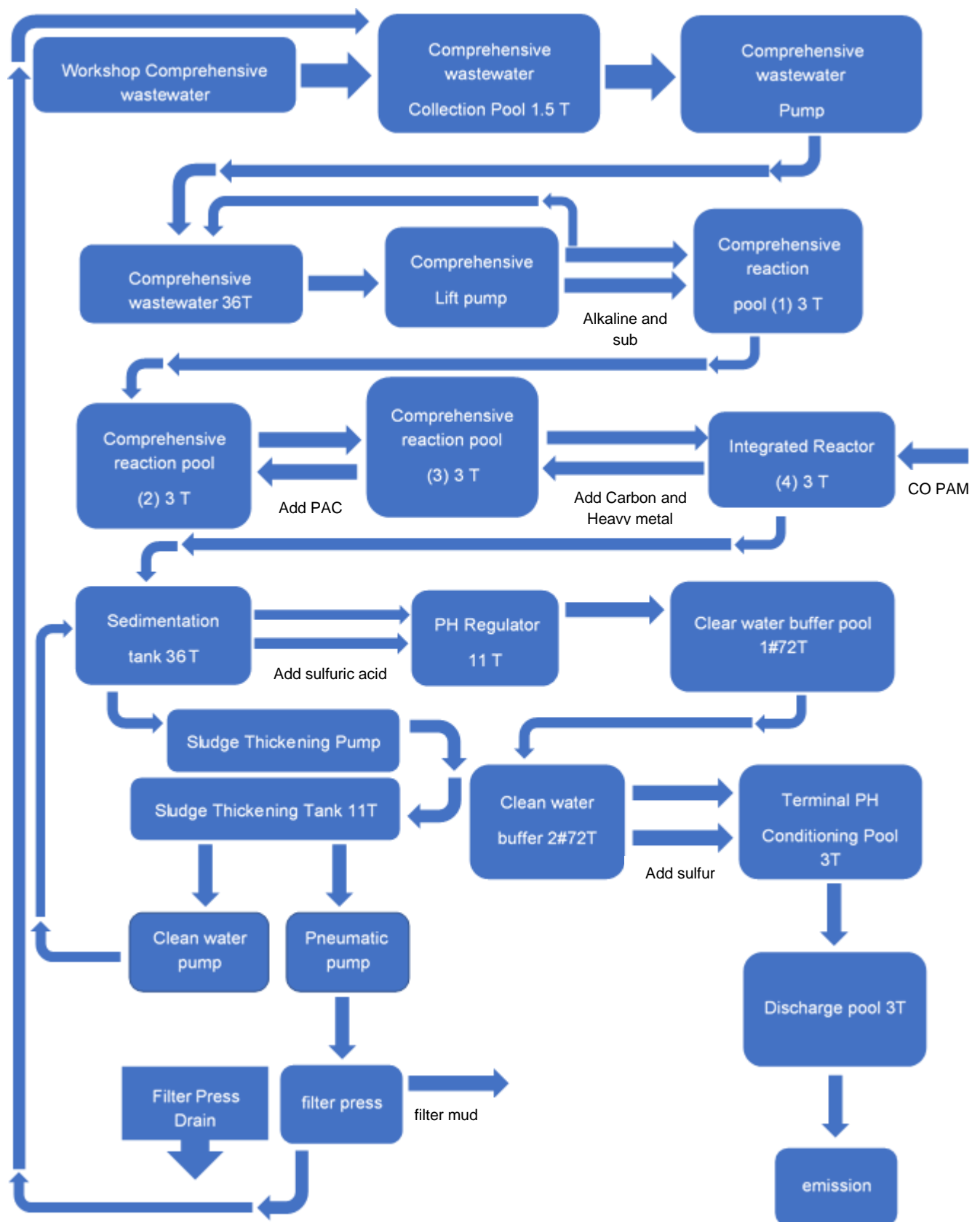


Figure 1-15 Comprehensive Wastewater Flow Chart

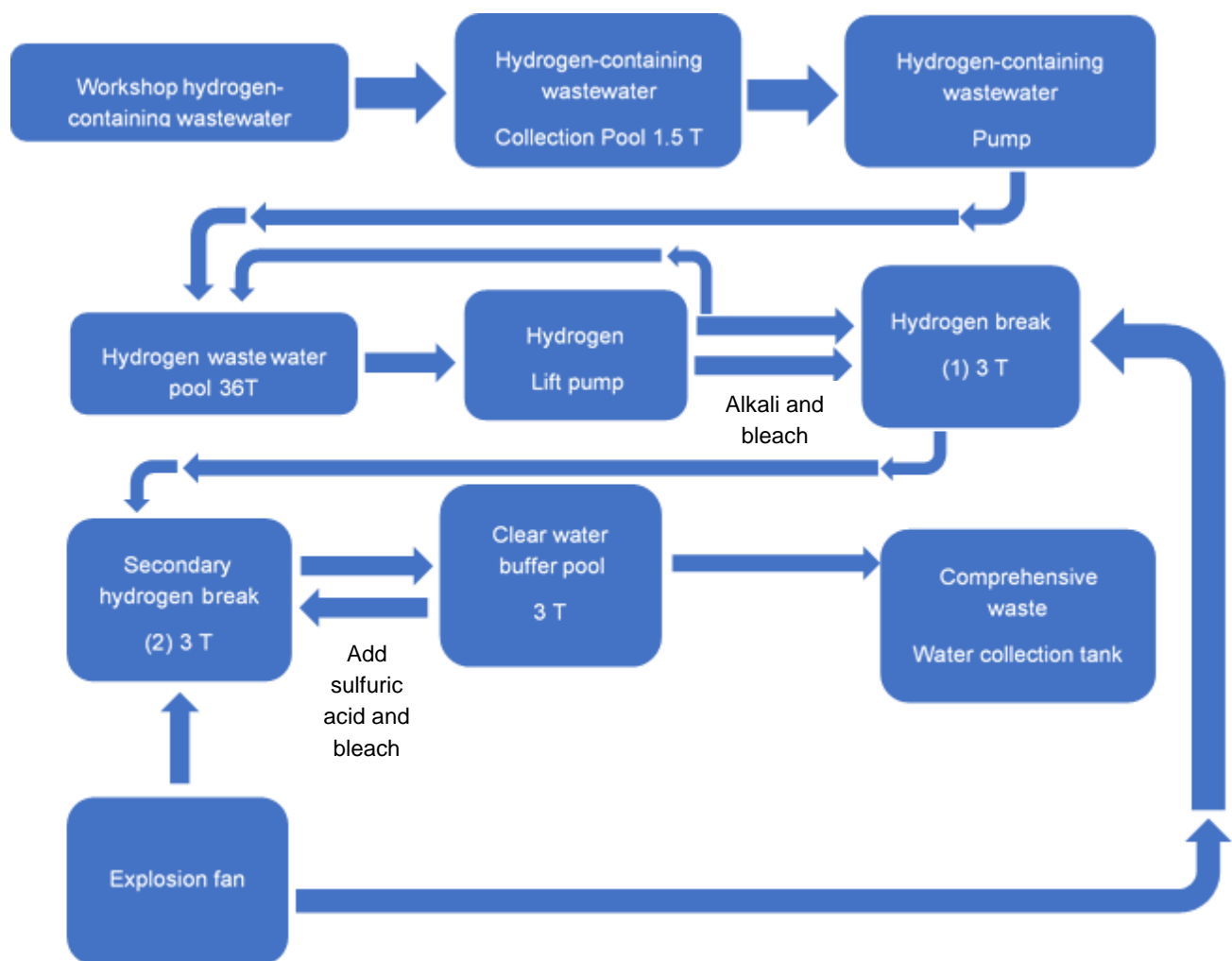


Figure 1-16 Hydrogen-Containing Wastewater Flow Chart

1.7.2. Fire hazards protect facility

12 Fire extinguishers, fire hose reels and fire hydrants are installed in the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening is also constructed with the capacity of 9,957 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 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. In addition, the project proponent has plans to provide trainings on firefighting for the workers by a professional or otherwise by sending to training courses. The plan to install fire alarm system and fire-frightening system are mentioned in Figure 1-17.

Note: *The proposed project's fire-hazard training and first aid training programme have not yet implemented. If it is done, fire certificates, training photos and other requirements will be reported to Environmental Conservation Department.*

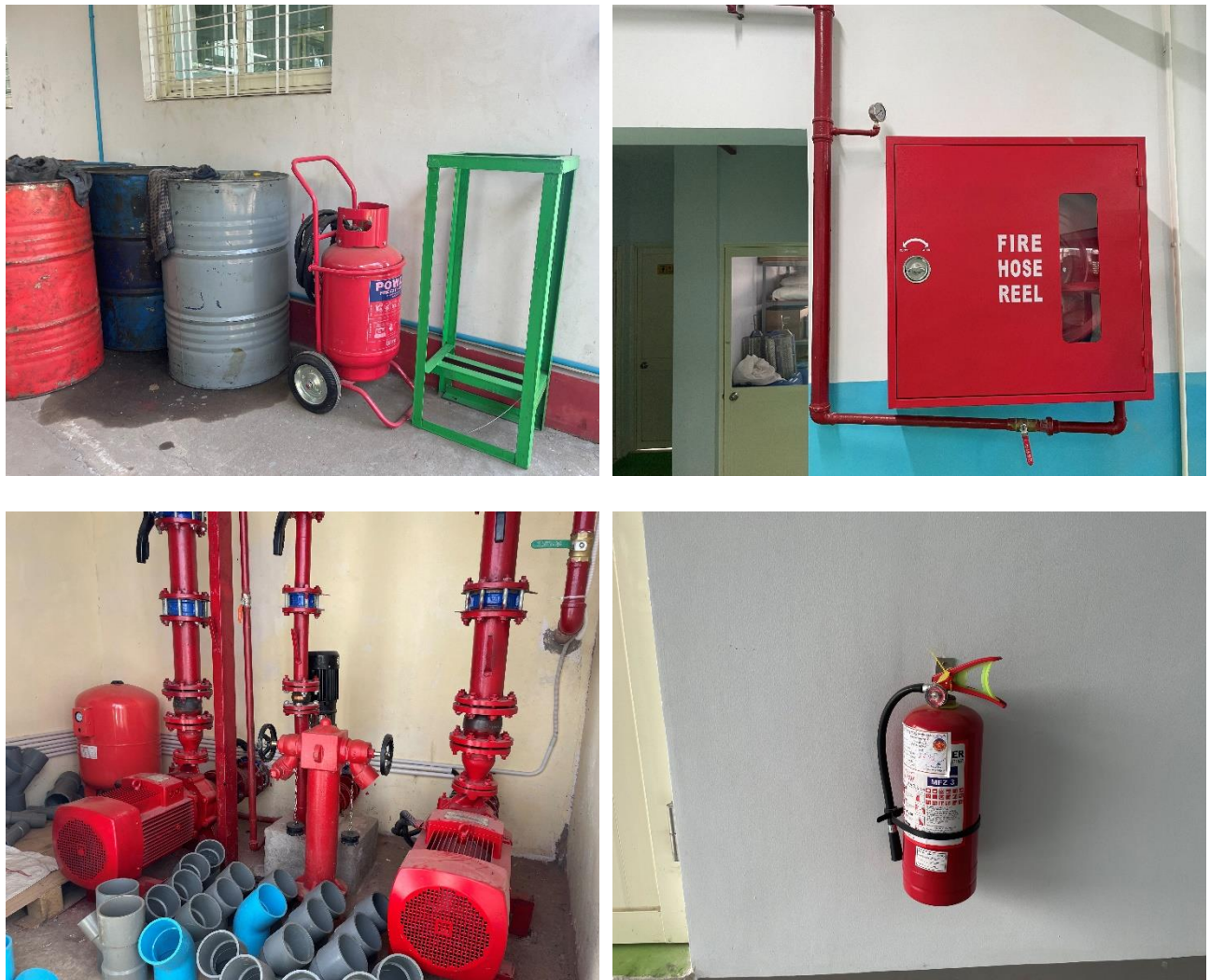


Figure 1-17 Firefighting system

1.7.3. Liquid waste control facility

The factory plan has kitchen, dormitory, 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 is paved with concrete and the drainages are covered and holes are there to flow the storm water. The existing drainage at the project area can be seen in Figure 1-18. Besides, 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 YCDC to be carried out for disposing of these septic tank wastes. To mitigate the impact on water, the drainages around the compound area of the factory have to maintain and clean regularly. Spillage and leakages of oil and grease should also be minimized.



Figure 1-18 Drainage and Toilet facility

1.7.4. Solid waste management facility

The factory provides separate garbage bins at each building. All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste bin: non-hazardous waste, hazardous waste, re-usable waste and final wastes will be disposed by using YCDC's service.



Temporary waste storage

Garbage bin

Figure 1-19

Waste storage photo

1.7.5. Ventilation System

The factory ventilation systems consist of natural ventilation system and air purification system. The natural ventilation system is provided in office room, toilet, kitchen and dormitory. Natural ventilation system and air purification system are provided in operation area.



Air Purification System



Natural Ventilation System

Figure 1-20 Ventilation system of B.C.C JEWELRY MFG COMPANY LIMITED

1.7.6. Dormitory facility

Housing/accommodation is providing for the foreign technicians in the factory compound that lives in the 30 persons.



Figure 1-21 Kitchen and dormitory

1.8. GENERATION OF WASTE, EMISSION AND DISTURBANCES

1.8.1. Industrial Wastes

Wastes generated from factory are disposed packaging materials, paper and plastic wrapping from packing section. Total amount of waste about maximum 4.8kg per day are generated from operation process. The factory discharge treated water about 317.54 gallons daily.

1.8.2. Human wastes

The number of staff and workers required in the day shift for the factory is maximum 385 persons during operation. Solid waste generated from maximum amount of operators and office staffs with assumption of waste generation rate at 1,178.1 kg/day was calculated based on solid waste generation rate of 3.06 kg/person/day¹.

Domestic wastewater generated by maximum amount of 385 persons with assumption rate 38.5 m³/day was calculated based on domestic wastewater generated rate of 0.1 m³/person/day². This water will be released in operation hour discharge to septic tank or factory drainage.

The project will be generated solid waste, liquid waste and hazardous waste from the operation of the B.C.C JEWELRY MFG COMPANY LIMITED factory. Detail description of waste generation and waste amount are shown in Table 1-12.

Table 1-12 Waste generation and waste amount

Waste		Type of wastes	Estimated waste amount	Source of generation
Solid waste	Reusable	Disposed packaging materials, paper or plastic wrapping	100 kg / month	Materials store and supply packaging
	Non re-usable	Food residues, domestic waste	92 kg / day*	Canteen, Kitchens, dormitory
Liquid waste		Sanitary discharge water	38.5 m ³ /day*	Toilet facility, kitchen and canteen
		Treated water	317.54 gallons/ day*	Chemical Treatment Plant
Hazardous waste		use chemical container	3 kg/day*	Chemical usage and store area
		Oil leakage and spills	-	Operation of generator and movements of vehicles

1.9. ALTERNATIVE PROJECT SITE

No alternative site has been proposed aside from this area since the proposed project area is situated within East Dagon Industrial Zone, East Dagon Myothit Township, Yangon Region, which has been designated and already finished the construction phase during IEE study. The factory already has endorsement from Yangon Region Investment Committee.

¹ 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).

² The domestic wastewater generation was based on typical wastewater generation rate of 0.1 m³ per person per day (Metcalf & Eddy, 2004)

1.10. DECOMMISSIONING PHASE

The proposed project investment duration is 30 years and they will close out the project according to their YRIC proposal.

CHAPTER 2 PROJECT PROPONENT PROFILE

2.1. PROJECT INFORMATION

The proposed factory is joint venture with foreign shares (75%) and myanmar's shares (25%) by B.C.C JEWELRY MFG.COMPANY LIMITED with an estimated authorized capital of USD (3) millions. The project is new investment for manufacturing of artificial jewelry on Contract Manufacturing Process (CMP) basic company from Taiwen. The Yangon Region Investment Committee (YRIC) issues the project on 28 August 2020 with the Endorsement No. (YGN- 409/2020). YRIC notified 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 on Contract Manufacturing Process (CMP) basis under the name of B.C.C JEWELRY MFG.COMPANY LIMITED. This is the information of project proponent from the YRIC's registration that is describing in below Table 2-1 and summary of project information is presented in Table 2-3.

Table 2-1 Information of Investor

Investor Name:	Mr. Wei, Yu-Tsen
ID No:	P.P.No. 314537297
Citizenship:	Taiwan
Address of Registration office:	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan.
Email	eric@chongintl.com yilling@strongjewel.com
Phone No.	+886-2-2700-1129*10

Table 2-2 Shareholder and Director List

Name	Position	Citizenship	P.P.No/NRC	Address	Share Percentage
Mr. Wei, Yu-Tsen	Managing Director	Taiwan	314537297	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan	75%
U Kyaw Htay	Director	Myanmar	5/YaOuNa(N) 017717	Bldg No.4, Parami Road, Parami Residence, Hlaing Township, Yangon Region	15%
Daw Khaing Thet Mon	Director	Myanmar	1/MaNyaNa(N) 111755	Bldg No.4, Parami Road, Parami Residence, Hlaing Township, Yangon Region	10%
Mr. Wei, Chao-Tsung	Director	Taiwan	311402278	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan	-
Ms. Wang, Li-Li	Director	Taiwan	311912366	8F, No. 311, Sec.4, Hsin-yi Road, Da-an District, Taipei City 10681, Taiwan	-

Table 2-3 Salient features of the project

Type of Proposed Business	Manufacturing of artificial Jewelry on CMP Basis
Type of investment	Joint Venture
Type of Share	Ordinary Share
Type of Company	Private
Type of land	Dagon Industrial Land
Total land area	4.593 acres (18587.21 sqm)
Total building area	A three storey building (120 ft x 45 ft)
Land lease year	30 years
Construction period	1 year
Address	Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region.
Contact person	Daw Yi Yi Thwe 12/MaYaKa(N) 062160 No. (4), ParamiLawKaNat Residence, Parami Road, Hlaing Township, Yangon. 09-5175110 shpyangon@gmail.com

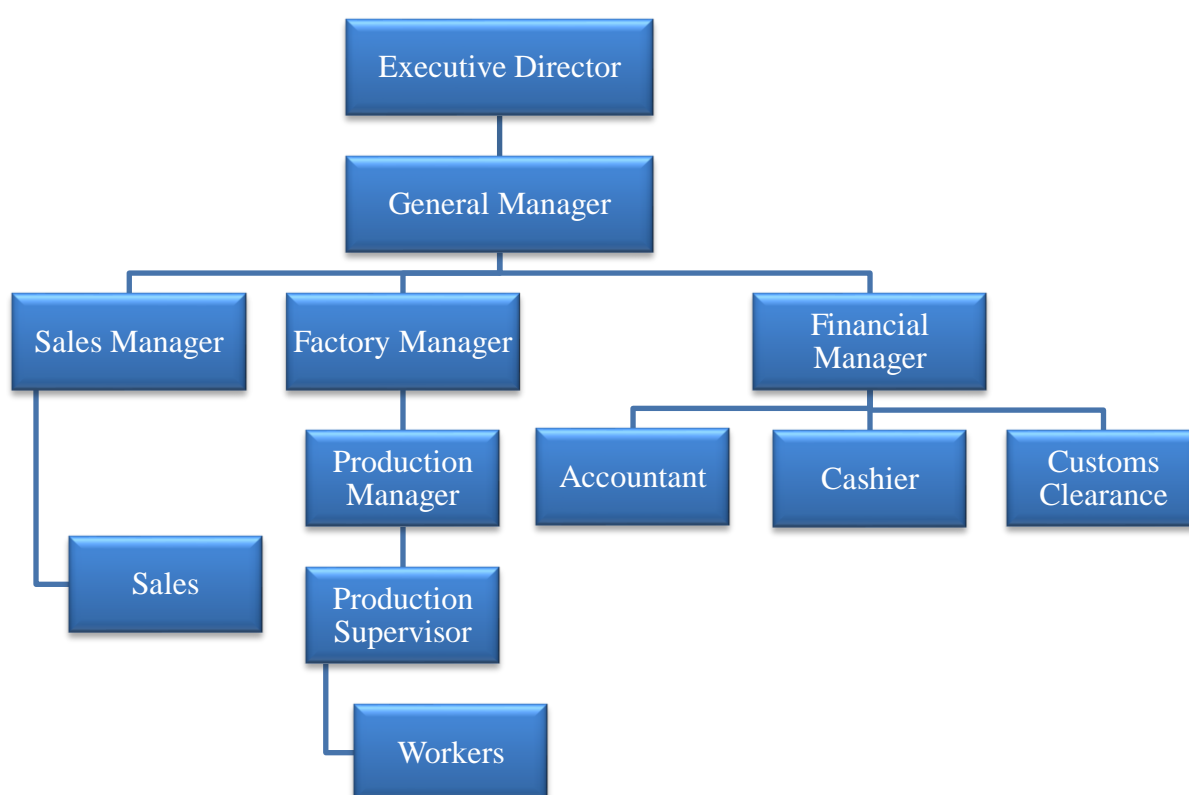


Figure 2-1 Organization Chart of B.C.C JEWELRY MFG.COMPANY LIMITED

CHAPTER 3 ENVIRONMENTAL CONSULTANT PROFILE

3.1. SCOPE OF IEE STUDY

The IEE study firstly established baseline environmental setting within 100 meters 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 Myanwei Consulting firm 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.

3.1.1. 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

3.2. IDENTIFICATION OF IEE STUDY TEAM

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED 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 areas of expertise and responsibilities during the study period.

Myanwei Environmental Solutions Co., Ltd. Transition Consultant Registration Certificate No. 0069	No. 49 (B), Inya Yeik Thar Street, Mayangone Township, Yangon Region, The Republic of the Union of Myanmar. Office: (+95) 95185776, Mobile: (+95) 9421137569; env@myanweiconsulting.com www.myanwweiconsulting.com.	1. Facilitation of meeting 2. Land use 3. Legal analysis 4. Geology and soil 5. Occupational Safety and Health 6. Public Health
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Table 3-1 Members of IEE Study Team

No.	Name	Qualificaion	Responsibility	Area of expertise
1.	Mr. Lin Htet Sein TCR No. 0048 Under Myanwei Consulting Co.,Ltd. (0068)	MSc (Regional Geology) BSc (Hons) Geology Dip in Environmental Science Certificate in Environmental & Social Assessment Certificate in Environmental Stainability	Project Director, Environmental Consultant, Project Management	1. Geology and Soil 2. Environmental Sustainability 3. Environmental and Social Impact Assesemtn 4. Industrial Management 5. Air Pollution Control
2.	Dr. Hein Lynn Aung Under Myanwei Consulting Co.,Ltd. (0068)	M.B, B.S (Yangon), Business Management (International Collage of Management Sydney, Australia)	Project Director, Public Health Consultant, Project Management	1. Occupational Safety and Health 2. Public Health
3.	Mr. Nyan Lynn Aung Under Myanwei Consulting Co.,Ltd. (0068)	B.Sc, Business Adminstration, San Francisco State University, San Francisco, M. Sc,(Finance) Business Adminstration (Finance), Golden Gate University, San Francisco, CA.	Legal Analysis	Legal Analysis
4.	Mr. Htun Lynn Kyaw	B.Sc (Geology)	Environmental Specialist	1. Modeling for air quality 2. Hazard Management
5.	Ms. Su Myat Hlaing	B.E. Civil Engineering B. Tech Civil Engineering	Environmental Engineer	1. Civil Engineering 2. Air Pollution Control
6.	Mr. Saw Yan Naung	B.E. Chemical Engineering B. Tech Chemical Engineering	Junior Environmental Consultant, Monitoring Measure, Document Administration	Chemical Engineering Process Design
7.	Mr. Kaung Sett Lwin	B.Sc (Hons) Geology Certificate of Geotechnical Engineering (Myanmar Geoscience Society)	Junior Environmental Consultant, Monitoring Measure, Document Administration	1. Geology and Soil 2. Hydrology 3. Mapping Techinque and Surveying Fundamentals

No.	Name	Qualificaion	Responsibility	Area of expertise
8.	Ms. May Soe Kyi	B.Agr Sc (Qualified)	Junior Environmental Consultant, Monitoring Measure, Document Administration	Water Management
9.	Ms. Pyae Phyo Win	MS.c (Botany)	Junior Environmental Consultant, Monitoring Measure, Document Administration	Biodiversity (Flora)
10.	Ms. Haymar Htet Naing	B.A (English) Certificate of Achievement (English Access Micro Scholarship Program) U.S Embassy Rangoon	Junior Environmental Consultant, Monitoring Measure, Document Administration	1. Socio-economic 2. Ground water & Hydrology
11.	Mr. Lynn Than Thaung	B.Sc (Forestry)	Junior Environmental Consultant, Monitoring Measure, Document Administration	Natural Resource Management (Forest)

CHAPTER 4

POLICY, LEGAL AND INSTITUTIONAL FRAME WORK

This section provides a brief summary of relevant national environmental legislations established by the MONREC and overview of current local and international environmental and social policies including related international or regional convention for the proposed project.

4.1. MYANMAR REGULATORY FRAMEWORK

Myanmar has 24 ministries under the Office of the President as of May 2016. The leading ministries in-charge of environmental and social considerations are the Environmental Conservation Department (ECD) of the MONREC that was reorganized Ministry of Environmental Conservation and Forestry (MOECF) in April 2016.

4.1.1. Laws and Regulations Related to Environmental and Social Considerations

Requirements related to environmental (and social) impact management for development projects are described in Table 4-1.

Table 4-1 List of Myanmar's Law relating to environmental management

Law and Regulation	Description
National Environmental Policy of Myanmar, (Notification No. 26/94 dated 5 December 1994)	To achieve harmony and balance between socioeconomic, natural resources and environment through the integration of environmental considerations into the development process enhancing the quality of the life of all its citizens.
Constitution 2008	
Section 37, (a)	The Union is the ultimate owner of all lands and all-natural resources above and below the ground, above and beneath the water and in atmosphere in the Union.
Section 37, (b)	The Union shall permit citizens rights of private property, right of inheritance, right of private initiative and patent in accord with the laws.
Section 372	The Union guarantees the right to ownership, the use of property and the right to private invention and patent in the conducting of business if it is not contrary to the provisions of this Constitution and the existing laws.
Section 45	The Union shall protect and conserve natural environment.
Section 390, (a), (b), (c), (d)	Every citizen has the duty to assist the Union in preserving and safeguarding the cultural heritage, conserving the environment, striving for the development of human resources, and protecting and preserving the public property.
Environmental Conservation Law, 30 March 2012	
Objectives	to contract a healthy and clean environmental and to conserve natural and cultural heritage for the benefit of present and future generations; to maintain the sustainable development through effective management of natural resources and to enable to promote international, regional and bilateral cooperation in the matters of environmental conversation.

Law and Regulation	Description
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>
<p>Chapter IV</p> <p>Provisions of Duties and Powers relating to the Environmental Conservation of the Ministry:</p> <p>Section 7</p>	<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>(d) prescribing environmental quality standards including standards on emissions, effluents, solid wastes, production procedures, processes and products for conservation and enhancement of environmental quality;</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>
<p>Chapter VI</p> <p>Environmental Quality Standards:</p> <p>Section10</p>	<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>

Law and Regulation	Description
Section 14	A person causing a point source of pollution shall treat, emit, discharge and deposit the substances which cause pollution in the environment in accord with stipulated environmental quality standards.
Section 15	The owner or occupier of any business, material or place which causes a point source of pollution shall install or use an on-site facility or controlling equipment in order to monitor, control, manage, reduce or eliminate environmental pollution. If it is impracticable, it shall be arranged to dispose the wastes in accord with environmentally sound methods.
Section 16	A person or organization operating business in the industrial estate or business in the SEZ or category of business stipulated by the Ministry: (a) is responsible to carry out by contributing the stipulated cash or kind in the relevant combined scheme for the environmental conservation including the management and treatment of waste; (b) shall contribute the stipulated users' charge s or management fees for the environmental conservation according to the relevant industrial estate, SEZ and business organization; (c) shall comply with the directives issued for environmental conservation according to the relevant industrial estate, SEZ or business.
Chapter X Prior Permission Section 24	The Ministry may, in issuing the prior permission, stipulate terms and conditions relating to environmental conservation. It may conduct inspection whether or not it is performed in conformity with such terms and conditions or inform the relevant Government departments, Government organizations to carry out inspections.
Section 25	The project proponent has to comply with the terms and conditions include in prior permission.
Section 29	The project proponent has to abide by the stipulations included in the rules, regulations, by-law, order, notification and procedure, which are issued by said law.
Chapter XIII Offences and Penalties Section 32	Whoever violates any prohibition contained in the rules, notifications, orders, directives and procedures issued under this Law shall, on conviction, be punished with imprisonment for a term not exceeding one year, or with fine, or with both.
Environmental Conservation Rules, 2014	
Rules 58	The Ministry shall form the EIA Report Review Body with the experts from the relevant Government departments, organizations.
Rules 59	The Ministry may assign duty to the Department to scrutinize the report of EIA prepared and submitted by any organization or person relating to EIA and report through the EIA Report Review Body.
Rules 61	The Ministry may approve and reply on the EIA report o IEE or EMP with the guidance of the Committee.
Sub-rule (a) of rule 68	The project proponent has to avoid emit, discharge or dispose the materials which can pollute to environment, or hazardous waste or hazardous material prescribed by notification in the place where directly or indirectly injure to public.

Law and Regulation	Description
Sub-rule (b) of rule 68	The project proponent has to avoid performing to damage to ecosystem and the environment generated by said ecosystem.
Chapter XIII Prohibitions Section 69	<p>(a) Any person shall not emit, cause to emit, dispose, cause to dispose, pile and cause to pile, by any means, the pollutants to environment and the hazardous waste or hazardous material stipulated by notification under the Law and any of these rules at any place which may affect the public directly or indirectly.</p> <p>(b) Any person shall not carry out the actions which can be damaged to natural environment which is changing due to ecosystem and such system, except the permission of the relevant Ministry in order to the interest of the public.</p>
Environmental Impact Assessment Procedure, December 2015	
Objectives	<p>The project proponent has to be liable for all adverse impacts caused by doing or emitting of project owner or contractor, sub-contractor, officer, employee, representative or consultant who is appointed or hired to perform on behalf of project owner, under sub-paragraph (a) of paragraph 102.</p> <p>The project proponent has to support, after consulting with effected persons by project, relevant government organization, government department and other related persons, to resettlement and rehabilitation for livelihood until the effected persons by the project receiving the stable socio-economy which is not lower than the status in pre-project, under sub-paragraph (b) of paragraph 102</p> <p>The project proponent has to fully implement all commitments of project and conditions included in EMP. Moreover, the project proponent has to be liable for contractor and sub-contractor who perform on behalf of him/her have to fully abide by the relevant laws, rules, this procedure, EMP and all conditions, under paragraph 103.</p> <p>The project proponent has to be liable and fully & effectively implement all requirements included in ECC, relevant laws and rules, this procedure and standards under rule 104.</p> <p>The project proponent has to inform the completed information, after specifying the adverse impacts caused by the project, from time to time, under paragraph 105.</p> <p>The project proponent has to continuously monitor all adverse impacts in the pre-construction phrase, construction phrase, operation phrase, suspension phrase, closure phrase and post-closure phrase, moreover has to implement the EMP with abiding the all conditions included in ECC, relevant laws & rules and this procedure, under paragraph 106.</p> <p>The project proponent has to submit, as soon as possible, the failures of his or her responsibility, other implementation, ECC or EMP. If dangerous impact caused by this failure or failure should be known by the Ministry the project proponent has to submit within 24 hours and other than this situation has to submit within 7 days from knowing it, under paragraph 107.</p> <p>The project proponent has to submit the monitoring report dually or prescribed time by Ministry in line with the schedule of EMP, under paragraph 108.</p>

Law and Regulation	Description
	<p>The project proponent has to prepare the monitoring report in accord with the rule 109.</p> <p>The project proponent has to show this monitoring report in public place such as library, hall and website and office of project for the purpose to know this report by public within 10 days from the date which the report is submitted to the Ministry. Moreover, has to give the copy of this report, by email or other way which way agreed with the asked person, to any asked person or organization, under paragraph 110.</p> <p>The project proponent has to allow inspector to enter and inspect in working time and if it is needed by Ministry has to allow inspector to enter and inspect in the office and work-place of project and other work-place related to this project in any time, under paragraph 113.</p> <p>The project proponent has to allow inspector to immediately enter and inspect in any time if it is emergency or failure to implement the requirements related to social or environment or caused to it, under paragraph 115.</p> <p>The project proponent has to allow inspector to inspect the contractor and sub-contractor who implement on behalf of project, under paragraph 117.</p>
Screening: Section 23	<p>a) The project proponent shall submit the Project Proposal to the Ministry for Screening.</p> <p>b) The Ministry will send the Project Proposal to the Environmental Conservation Department to determine the need for environmental assessment.</p> <p>c) Following the preliminary Screening and verification that the Project Proposal contains all required documents and related materials, subject to Articles 8, 9, 10, 11, 26 and 27 the Department shall make a determination in accordance with Annex 1 = Categorization of Economic Activities for Assessment Purposes', taking into account Article 25 and the additional factors listed in Article 28 in order to designate the Project as one of the following, and then submit it to the Ministry:</p> <p>i) An EIA Type Project, or</p> <p>ii) An IEE Type Project, or</p> <p>iii) A Non IEE or EIA Type, and therefore not required to</p>
CHAPTER VIII. Monitoring Section 102	<p>The monitoring reports shall include:</p> <p>a) documentation of compliance with all Conditions;</p> <p>b) progress made to date on implementation of the EMP against the submitted implementation schedule;</p> <p>c) difficulties encountered in implementing the EMP and recommendations for remedying those difficulties and steps proposed to prevent or avoid similar future difficulties;</p> <p>d) number and type of non-compliance with the EMP and proposed remedial measures and timelines for completion of remediation;</p> <p>e) accidents or incidents relating to the occupational and community health and safety, and the environment; and</p> <p>f) monitoring data of environmental parameters and conditions as committed in the EMP or otherwise required</p>

Law and Regulation	Description
Section 103	Within ten (10) days of completing a monitoring report as contemplated in Article 97 and Article 98 in accordance with the EMP schedule, the Project Proponent shall make such report (except as may relate to National Security concerns) publicly available on the Project's website, at public meeting places (e.g. libraries, community halls) and at the Project offices. Any organization or person may request a digital copy of a monitoring report and the Project shall, within ten (10) days of receiving such request, submit a digital copy via email or as may otherwise be agreed upon with the requestor
Section 104	The Ministry has the right, using its own officers at national, regional, state, Nay Pyi Taw Union Territory and/or local offices, the services of any consultant, or both, to conduct monitoring and inspections of a Project and activities related thereto in order to control and determine compliance by the Project with all applicable environmental and socio-economical requirements and, where possible, to prevent violations of the Project's obligations. The Ministry may also, for the implementation of monitoring and inspections, enlist the assistance of other relevant government departments and organizations.
Section 105	If, upon inspection, the Ministry identifies any non-compliance with the EMP or Conditions in the ECC, the Ministry may require the Project Proponent to undertake remedial measures and/or may impose penalties as provided for in this Procedure
Section 106	For purposes of monitoring and inspection, the Project Proponent shall grant to the Ministry and/or its representatives, at any time during normal working hours and from time to time as and when the Ministry may reasonably require, 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.
Section 107	In carrying out any inspection, the Ministry may take photographs and make other audio and video recordings of any type, take soil, sediment, water, and air samples, and examine computers, copy documents including digital files, interview persons, and carry out any other investigation which the Ministry believes to be necessary or appropriate. The Ministry, as it deems necessary, may carry out such inspection in coordination with any other ministries.
Section 108	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, including outside normal working hours.
Section 109	The Ministry's inspections may include without limitation sites, facilities, vehicles, computers, archives, documents and all other forms and types of media and information storage, and persons.
Section 110	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 subcontractors

Law and Regulation	Description
Section 113	The Ministry shall indicate the manner in which environmental obligations are not being complied with by the Project Proponent, and shall give the Project a specified time period (determined by the Ministry to be reasonable under the circumstances) within which to bring the Project into compliance.
Section 115	All costs of the Ministry to conduct inspection and monitoring of the Project shall be borne by the Project Proponent. Such costs shall not exceed that which is necessary to ensure the Project's compliance with the Project commitments as set out in the EMP and in the ECC.
Section 117	The Ministry may require that Projects and other economic activities that derive from such policy, strategy, development plan, framework or program and which have been required to undertake a study to identify and assess the potential environmental and social impacts (as stipulated above) shall be developed and implemented (sited, designed, constructed and operated) in accordance with the environmental and social management and monitoring framework of such policy, strategy, development plan, framework or program.
National Environmental Quality (Emission) Guidelines (NEQG) (December 2015)	
Objectives	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.
National Environmental Policy of Myanmar (2019)	
National Environmental Policy Vision & mission	<p><u>Vision</u> A clean environment, with healthy and functioning ecosystem, that ensures includes development and wellbeing for all people in Myanmar.</p> <p><u>Mission</u> To establish national environmental policy principle for guiding environmental protection and sustainable development and for mainstreaming environmental consideration into all policies, laws, regulation, plans, strategic, programmes and projects in Myanmar.</p>
Foreign Investment Rule, 2013	
Rule 54	<p>The promoter or investor shall:</p> <p>(a) comply with Environmental Protection Law in dealing with environmental protection matters related to the business;</p> <p>(b) shall carry out socially responsible investment in the interest of the Union and its people;</p> <p>(c) shall co-operate with authorities for occasional or mandatory inspection;</p> <p>(d) shall exercise due diligence to be in conformity and harmony with norms and standards prescribed by relevant Union Ministry in conducting construction of factories, workshops, buildings, and other activities;</p> <p>(e) shall enforce Safety and Health</p>
Myanmar Investment Law, 2016	
Chapter II	The objectives of this Law are as follows:

Law and Regulation	Description
Objective Section 3	<p>(a) to develop responsible investment businesses which do not cause harm to the natural environment and the social environment for the interest of the Union and its citizens;</p> <p>(b) to protect the investors and their investment businesses in accordance with the law;</p> <p>(c) to create job opportunities for the people;</p> <p>(d) to develop human resources;</p> <p>(e) to develop high functioning production, service, and trading sectors.</p> <p>(f) to develop technology, agriculture, livestock and industrial sectors;</p> <p>(g) to develop various professional fields including infrastructure around the Union;</p> <p>(h) to enable the citizens to be able to work alongside with the international community;</p> <p>(i) to develop businesses and investment businesses that meet international standards.</p>
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>(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 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>(i) shall close and discontinue the investment only after payment of compensation to employees in accordance with applicable laws for any</p>

Law and Regulation	Description
	<p>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 their investment, to abide by the applicable laws, rules, orders and directives, and the culture and traditions of Myanmar;</p>
Chapter XVII Insurance Section 73	The investor shall insure 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	
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
Myanmar Insurance Law (1993)	<p>Section 15 - If the project proponent uses the owned vehicles the project owner has to ensure the insurance for the injured person.</p> <p>Section 16 - The project proponent has to ensure insurance to compensate for general damages because the project may cause damages to the environment and injury to the public.</p>
The Export and Import Law (2012)	
Chapter II Objectives Section 3	<p>The objectives of this law are as follows:</p> <p>a) To enable to implement the economic principles of the State successfully.</p> <p>b) To enable to lay down the policies relating to export and import that supports the development of the State.</p> <p>c) To cause the policies relating to export and import of the State and activities are to be in conformity with the international trade standards.</p> <p>d) To cause to be streamlined and speedy in carrying out the matters relating to export and import.</p>
Chapter IV Prohibitions Section 5	No persons shall export or import restricted, prohibited and banned goods.

Law and Regulation	Description
Section 6	Without obtaining license, no person shall export or import the specified goods which are to obtain permission.
Section 7	A person who obtained any license shall not violate the conditions contained in the license.
Chapter V Offences and penalties Section 8	Whoever violates the prohibition contained in section 5 or section 6, on conviction, shall be punished with imprisonment for a term not exceeding three years or with fine or with both.
Section 9	A person who obtained any permit violates the prohibition contained in section 7, on conviction, shall be punished with imprisonment for a term not exceeding three years or with fine or with both.
Section 10	A person attempts to commit or abets in the commission of any offence contained in this Law shall be punished in the same manner as if he had been committed such offence and the exhibits shall also be confiscated.
Myanmar Insurance Law (1993)	
Chapter II Establishment and Aim Section 4	The Myanmar Insurance is established with the following aims: - social and economic losses which the people may encounter, due to common perils; (b) to promote the habit of savings individually by effecting life assurance, thus contributing to the accumulation of resource, of the State; (c) to win the trust and confidence of the people in the insurance system by providing effective insurance safeguards which may become necessary in view of the social and economic developments.
Chapter VI Effecting Insurance and Granting of Benefits Section 15	Owners of motor vehicles shall effect 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 effect compulsory General Liability Insurance with the Myanmar Insurance.
The Commercial Tax Law (1990) Amended 2014	
Chapter 5 Registration and Intimation of Commencement of Enterprise Article 11 (b)	Any Person who commences operation of a goods production enterprise or service enterprise shall furnish letter of intimation on the commencement of the operation as such to the relevant Township Revenue Officer as stipulated by regulations.
Chapter 6 Monthly Payment of Tax and Sending of Three-Monthly Return Article 12 (a)	Any person who has taxable proceed of sale or receipt from service within a year, shall pay due monthly tax within ten days after the end of the relevant month. Moreover, a three-monthly return shall be furnished to the relevant Township Revenue Officer within one month after the end of relevant three-month.
Article 12 (b)	The Township Revenue Officer may intimate any person to pay due

Law and Regulation	Description
	monthly tax and send three-monthly return if there is cause to consider that he has taxable proceed of sale or receipt from service within a year.
Article 12 (c)	If it is failed to pay tax under sub-section (a) or (b), or if there is cause to consider that the tax paid is less than the tax payable, the Township Revenue Officer may, based on the information received, estimate and claim the tax payable or the additional tax payable.
Article 12 (d)	The tax paid under sub-section (a), (b) or (c) shall be set-off from the tax due in the assessment.
Article 12 (e)	The tax payable on goods imported under sub-section (c) of section 4 of the Law shall be collected together with the customs duties by the Customs Department in accord with the manner of collecting customs duties.
The Amended Law for Factories Act, 1951 (Amended in 2016)	
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	
Chapter II Basic Principles Section 3	Private Industrial Enterprises shall be conducted in accordance with the following basic principles: - (a) to enhance the higher proportion of the manufacturing value added in the gross national product and value of services, and to increase the production of the respective economic enterprises which are related to the industrial enterprise; (b) to acquire modern technical know-how for raising the efficiency of industrial enterprises and to establish the sale of finished goods produced by the industrial enterprise not only in the local market, but also in the foreign market; (d) to cause narrowing down of the gap between rural development and urban development by causing the development and improvement of industrial enterprises; (e) to cause opening up of more employment opportunities; (f) to cause avoidance of or reduction of the use of technical know-how which cause environmental pollution; (g) to cause the use of energy in the most economical manner.
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	The duties of the entrepreneur are as follows: -

Law and Regulation	Description
Duties and Rights of the Entrepreneur Section 13	(b) shall abide by the terms and conditions of the registration certificate; (l) 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;
The Prevention of Hazard from Chemical and Related Substances Law, 2013	
Chapter II Aims Section 3	This law was enacted with the objectives of: a. To protect from being damaged the natural environment resources and being hazardous any living beings by chemical and related substances; b. To supervise systematically in performing the chemical and related substances business with permission for being safety; c. To perform the system of obtaining information and to perform widely educative and research for using the chemical and related substance systematically; d. To perform the sustainable development for the occupational safety, health and environmental conservation. Regarding the chemical management and storage, currently, regulations governing chemicals management are divided between various Acts, mostly dating from colonial times; hence the legislation is in many respects related to the British framework. The Factory Act and the Public Health Act contain the provisions for chemicals management and storage. Some chemicals are likely to require permits.
Section 15	A person who has obtained a licence, before starting the respective chemical and related substances business: - (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; (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.
Section 16	A person who has obtained a licence: - (a) shall abide the licence regulations; (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; (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; (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;

Law and Regulation	Description
	<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>
Petroleum and Petroleum Product Law (2017)	
Chapter II Objective	The Objectives of this law are as follows:

Law and Regulation	Description
Section 3	<p>a.to carry out the petroleum and petroleum product businesses activities systematically in accordance with the provisions of the law, stipulated standards, procedures and conditions;</p> <p>b.to enable the petroleum and petroleum product business activities to carry out safely without environmental impact;</p> <p>c.to establish free and fair competition in carrying out petroleum and petroleum product business activities;</p> <p>d.to secure energy requirement and energy security of the Union;</p> <p>e.to obtain tax revenue of the Union</p>
Chapter IV Application for Licence, Issue of Permit, Determining Conditions to be abided by, and Supervision Section 9	<p>The Ministry of Transport and Communications shall carry out the following functions relating to any petroleum and petroleum product;</p> <p>a. issuing licence to vehicles, vessels and barges that carry any petroleum and petroleum product;</p> <p>b. determining period, form, conditions, means of applying for licence, permitting authority and fees to be assessed, for licences under subsection (a);</p> <p>c. determining and supervision on ports for vessels and barges that carry out import, export, and transport by water in accord with procedures;</p> <p>d. taking action, as necessary, in accordance with the existing laws if it occurs spill or accident in carrying out import, export, transport, and sale and distribution of petroleum and petroleum product by water;</p> <p>e. determining procedures and conditions to be abided by in carrying out transport business except transport by pipeline.</p>
Section 10	<p>The Ministry of Natural Resources and Environmental Conservation shall carry out the following functions relating to any petroleum and petroleum product;</p> <p>a. issuing licence for the right to store for the storage tanks and warehouses;</p> <p>b. issuing transport permit for the vehicles, vessels and barges that shall carry any petroleum and petroleum product;</p> <p>c. determining the period, form and terms and conditions, manners of applying licence, permitting authority and fees to be assessed, for licence under subsection (a) and permit under subsection (b);</p> <p>d. if it occurs environmental impacts in carrying out petroleum and petroleum product business activities, taking action, as necessary, in accordance with the existing laws of on-site inspection;</p> <p>e. determining, in coordination with ministries concerned, procedures and conditions relating to standard and quality of storage tanks and warehouse, and tanks of vehicles, vessels and barges that carry any petroleum and petroleum product.</p>
Section 11	<p>On all receptacles containing any dangerous petroleum and petroleum product, the warning sign of danger by stamping, embossing, painting, printing or any other means shall be expressed. If it is impossible to express as such, similar warning signs of the nature of danger of gasoline, spirit or petroleum shall be expressed in writing at the ostensible place in salient words or signs near the receptacle.</p>
Chapter VI	Any licensee:

Law and Regulation	Description
Prohibition Section 31	<p>a. shall not violate any prohibition contained in the rules, regulations, bye-laws, notifications, orders, directives, procedures and conditions or fail the duty to implement;</p> <p>b. shall not use a receptacle and transport vehicles and pipelines that contains any dangerous petroleum and petroleum product without saliently mentioning in writing of warning signs;</p> <p>c. shall not import, transport, store and sell and distribute the dangerous petroleum and petroleum product, or non-dangerous petroleum and petroleum product except by the means stipulated in this law;</p> <p>d. shall not have the right to carry out without undertaking the environmental impacts, in operating petroleum and petroleum product business activities;</p> <p>e. shall not distribute and sell petroleum and petroleum products which do not fulfill or are not in conformity with the standard, quality and measurement.</p>
Industrial Use Explosive Substances Law, 2018	
Objective:	<p>The objectives of Industrial Use Explosive Substances Law (2018) are as follow:</p> <p>(a) to make, import, transport, store and use of exploiting materials that explode in the workplace must be carefully handle and use.</p> <p>(b) to take care of safety in the workplace which use yarns and accessories</p> <p>(c) to properly supervise the use of explosive materials in the workplace.</p>
Chapter 7 Prohibitions Article 18	Any license holder shall not be refused to perform the inspection of the inspector or the inspector general.
Article 19 (b)	Under Section 8, any explosive materials shall not be destroyed materials without the approval of the Defense Ministry's Executive Board.
Article 19 (c)	Rules and Regulations, orders, disciplines, instructions issued under this law must not fail to act.
The Law on Standardization (2014)	
Chapter (II) Objectives Section 3	<p>The objectives of this Law are as follows:</p> <p>(a)to enable to determine Myanmar Standards;</p> <p>(b)to enable to support export promotion by enhancing quality of production organizations and their products, production processes and services;</p> <p>(c)to enable to protect the consumers and users by guaranteeing imports and products are not lower than prescribed standard, and safe from health hazards;</p> <p>(d)to enable to support protection of environment related to products, production processes and services from impact, and conservation of natural resources;</p> <p>(e)to enable to protect manufacturing, distributing and importing the disqualified goods which do not meet the prescribed standard and those which are not safe and endangered to the environment;</p>

Law and Regulation	Description
	(f)to support on establishing the ASEAN Free Trade Area and to enable to reduce technical barriers to trade. (g)to facilitate technological transfer and innovation by using the standards for the development of national economic and social activities in accordance with the national development programme.
Chapter 7 Taking Action by Committee No. 19	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: warning suspending the certificate of certification for limited period cancelling the certificate of certification
Chapter (VI) Application for and Issue of Certification Section 17	A person desirous of obtaining certificate of certification shall apply to the department and organization which has obtained the accreditation.
Chapter (VII) Taking Action by Committee Section 19	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 orders: (a)warning; (b)suspending the certificate of certification for limited period; (c)cancelling the certificate of certification
Chapter (IX) Offences and Penalties Section 26	If any person who obtained certificate of certification uses standardization mark on the product which is not in conformity with the relevant standard or relating to service shall be punished with imprisonment for a term not exceeding one year or with fine not more than one million Kyats or with both.
The Labor Organization Law (2011)	
Chapter V Rights and Responsibilities of the Labour Organization Section 17	The labour organizations shall have the right to carry out freely in drawing up their constitution and rules, in electing their representatives, in organizing their administration and activities or in formulating their programmes. The Labour Organizations have the right to negotiate and settle with the employer if the workers are unable to obtain and enjoy the rights of the workers contained in the labour laws and to submit demands to the employer and claim in accord with the relevant law if the agreement cannot be reached.
Section 18	The labour organization has the right to demand the relevant employer to re-appoint a worker if such worker is dismissed by the employer and if there is cause to believe that the reasons of such dismissal were based on labour organization membership or activities, or were not in conformity with the labour laws.
Section 19	The labour organizations have the right to send representatives to the Conciliation Body in settling a dispute between the employer and the worker. Similarly, they have the right to send representatives to the Conciliation Tribunals formed with the representatives from the various levels of labour organizations.

Law and Regulation	Description
Section 20	In discussing with the Government, the employer and the complaining workers in respect of worker's rights or interests contained in the labour laws, the representatives of the labour organization also have the right to participate and discuss.
Section 21	The labour organizations have the right to participate in solving the collective bargains of the workers in accord with the labour laws.
Section 22	The labour organizations shall carry out peacefully in carrying out holding of meetings, going on strike and carrying out other collective activities in accord with their procedures, regulations, by-laws and any directives prescribed by the relevant Labour Federation.
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
The Pyidaungsu Hluttaw hereby enacts this Law for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly.	
The Social Security Law (2012)	
The Social Security Law, enacted in 2012, was amended the Social Security Act in 1954. It stipulates the formation and implementation of social security systems.	
Chapter II Objectives Section 3	<p>The objectives of this Law are as follows:</p> <p>(a) to support the development of the State's economy through the development of production by causing to enjoy more security in social life and health care by the workers who are major productive force of the State by the collective guaranty of the employer, worker and the State;</p> <p>(b) to enjoy more security in social life and medical care by the public by effecting their insurance voluntarily;</p> <p>(c) to raise public confidence upon the social security scheme by providing benefits which are commensurate with the realities;</p> <p>(d) to have the right to draw back some of the contributions paid by the employers and the workers as savings, in accord with the stipulations;</p> <p>(e) to obtain the right to continued medical treatment, family assistance benefit, invalidity benefit, superannuation benefit, survivors' benefit, unemployment benefit, the right to residency and ownership of housing after retirement in addition to health care and pecuniary benefit for sickness, maternity, death, employment injury of the workers.</p>
Chapter V Social Security System and Benefits Section 11	<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> <p>(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;</p> <p>(ix) works carried out with foreign investment or citizen investment or joint ventured businesses;</p> <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</p>

Law and Regulation	Description
	<p>even though any of the following situations occurs if it continues to carry out such work:</p> <p>(i) carrying out work by employing under stipulated minimum number of workers but more than one worker;</p> <p>(ii) changing the employer or changing the type of business.</p>
Social Security System Section 13	<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> <p>i) education allowance benefit for the children of insured persons who earn below the specified amount of income;</p> <p>ii) health care and aid benefit in time of natural disaster;</p> <p>iii) suitable benefit for dependent family members.</p>
Section 15	<p>(a) The following funds are included in the Social Security Fund:</p> <p>(i) health and social care fund;</p> <p>(ii) family assistance fund;</p> <p>(iii) invalidity benefit, superannuation pension benefit, and survivors' benefit fund;</p> <p>(iv) unemployment benefit fund;</p> <p>(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;</p> <p>(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;</p> <p>(vii) fund for Social Security Housing Plan;</p>
Section 18	<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>
Chapter VI Application to Employment Injury Benefit Insurance System, Employment Injury Benefit Fund and Benefits Section 45	<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> <p>(b) workers specified as being applied to provisions of compulsory registration for employment injury benefit insurance system by notification of the Ministry of Labour, in co-ordination with the Social Security Board with the approval of the Union Government.</p>
Section 48	<p>(a) The employer shall effect insurance by registering for employment injury benefit insurance system contained in section 45 at the relevant township social security office and pay contribution to employment injury benefit fund in accord with stipulations</p>

Law and Regulation	Description
	<p>in order that workers applied to provisions of compulsory registration may obtain the employment injury benefits;</p> <p>(b) The employers may effect insurance by registering voluntarily for insurance of the workers who are not applied to provisions of compulsory registration for employment injury benefit insurance system, by paying stipulated contribution to employment injury benefit insurance fund;</p> <p>(c) When registering to effect insurance for employment injury benefit in accord with sub-sections (a) and (b), the worker shall submit medical certificate.</p>
Section 49	<p>Non-application to the Workmen's Compensation Act</p> <p>(a) The employers and insured persons of establishments where the employer had registered compulsorily in accordance with sub-section (a) of section 48 or where the employer had registered voluntarily in accord with sub-section (b) of section 48 who have paid contribution to employment injury benefit fund shall not apply to the provisions contained in the Workmen's Compensation Act as regards the employment injury benefit;</p> <p>(b) The insured persons who has effected insurance for employment injury benefit in accord with sub-sections (a) and (b) of section 48 shall be entitled only to the employment injury insurance benefits contained in this Law.</p>
Section 53	<p>(a) The employers and workers shall co-ordinate with the Social Security Board or insurance agency in respect of keeping plans for safety and health in order to prevent employment injury, contracting disease and decease owing to occupation and in addition to safety and educational work of the workers and accident at the establishment;</p>
Section 75	<p>The employer of establishments applied by this Law:</p> <p>(a) shall prepare and keep the following records and lists correctly and submit to the relevant township social security office in accord with the stipulations:</p> <ul style="list-style-type: none"> i) records and lists of workers' daily attendance; ii) records of appointing new worker, employing worker by changing of work, suspension from work, dismissal from work and resignation from work; iii) records of promotion and paying remuneration; iv) records and lists of employers, managers, and administrators; and records of changes of them; <p>(b) shall inform the relevant township social security office if the following matters arise:</p> <ul style="list-style-type: none"> i) change in number of workers and address of establishment; ii) change of employer, change of business, suspension from work, and termination of work; iii) employment injury, employment death, and occupational diseases; <p>(c) shall produce work records and lists on requirement of inspection team or official assigned duty under this Law by the Social Security Head Office and various Regional Social Security Offices.</p>

Law and Regulation	Description
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
This law was enacted for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. It stipulates that employer in which more than 30 workers are employed shall form the workplace coordinating committee consisting of the representatives of workers and the representatives of employer.	
Section 23	A party, employer or worker, may complain individual dispute relating to his grievance to the Conciliation Body and if he is not satisfied with the conciliation of such body in accord with stipulated manners, may apply to the competent court in person or by the legal representative.
Section 24	The relevant Conciliation Body shall, in respect of the collective dispute known or received by the complaint of either party, employer or worker, in respect of the dispute; information sent by the Minister or the Region or State Government or any other means, carry out as follows: (a) conciliating so as to be settled within three days, not including the official holidays, from the day of knowing or receipt of such dispute; (b) concluding mutual agreement if the settlement is reached in conciliating under sub-section (a), before the Conciliation Body.
Section 25	The Conciliation Body shall refer the collective dispute which does not reach settlement to the relevant Arbitration Body and inform the persons relating to the dispute.
Section 38	No employer shall fail to negotiate and coordinate in respect of the complaint within the prescribed period without sufficient cause.
Section 39	No employer shall alter the conditions of service relating to workers concerned in such dispute at the consecutive period before commencing the dispute within the period under investigation of the dispute before the Arbitration Body or Tribunal, to affect the interest of such workers immediately.
Section 40	The project proponent has to not close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal
Section 51	The project proponent has to pay the compensation decided by Tribunal if violates any act or any omission to damage the interest of labour by reducing of product without efficient cause.
Section 46	Any employer who violates any prohibition contained in sections 38 and 39 shall, on conviction, be punished with a fine for a minimum of one-lakh kyats.
The Employment And Skills Development Law (2013)	
This law was enacted for safeguarding the right of workers or having skillful of workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. Employer shall conduct occupational training to enhance the skills of workers.	
Chapter (2) Employment and Employment Seeking Section 3	The Ministry shall manage the facilities and measures to help for selection of employment, obtaining employment for employment seeker suitable according to the age and strength; tenure in employment and skill development, and to help employers for obtaining workers suitable for the employment

Law and Regulation	Description
Chapter (3) Making Contract of Employment Section 5	(a)(1) After the employer has employed a worker for any job, he shall within 30 days of so doing, sign a Contract of Employment with the worker. This clause however shall not apply to permanent workers of government departments and organizations. (2) If prior to employment, the worker is required to attend any per-employment training for a period or appointed on probation for a period, sub-section (1) shall not apply for that period. (c) The workplace rules in the Employment Contract shall conform to the rules made under existing laws and the rights of the workers in the Contract shall not be less than those in existing laws.
Chapter (5) Implementing Training Programs and Skills Development of Workers Section 14	Employer shall conduct occupational training to enhance the skills of workers who are to be employed as well as workers who are presently employed in accordance 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 Worker's Compensation Act, 1923	
It stipulates that employer is required to make payments to employees who become injured or who die in any accidents arising during and in consequence of their employment. Such compensation also must be made for diseases which arise as a direct consequence of employment, such as carpal tunnel syndrome.	
Chapter IV Determining the Categories of Work Section 6	The National Committee shall determine, by notification, commercial, production and service, agricultural and livestock breeding business which shall be applied by the provisions relating to minimum wage contained in this Law, in the whole country or relevant Union, Region or State. Moreover, it may amend the said businesses in accord with the changing situation from time to time.
Chapter VII The Duties of the Employer Section 12	The employer: (a) shall not pay wage to the worker less than the minimum wage stipulated under this Law; (b) may pay more than the minimum wage stipulated under this Law; (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; (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 or partly in cash and partly in property, with prevailing regional price, jointly according to the desire of the worker; (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 be paid jointly according to local custom or desire of

Law and Regulation	Description
	the majority of workers or collective agreement. Such payment shall be for any personal use and benefit of 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 IX</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 workplaces, agricultural and livestock breeding workplaces and inspect whether or not they comply with and carry out 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 card issued 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>

Law and Regulation	Description
Payment of Wages Law (2016)	
The Payment of Wage Act defines the payment obligation to the workers employed in the factories or railway administration. It stipulates the method of payment stating that the payment should be made in cash on a regular payday, and allows legal action against delayed payment or un-agreeable deduction.	
Chapter II Methods and Time of Payment of Wages Section 3	<p>The employer:</p> <p>(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.</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>
Section 4	<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>
Section 5	If an employer encounters difficulties 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.

Law and Regulation	Description
Chapter III Deduction from Wages Section 13	The employer: (a) may deduct from wages, except leaves which are entitled wages under the relevant law and public holidays, for the absent period from work; (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; (c) may deduct advance payment or reimburse or savings for the worker or any contribution under any law demanded by a worker from wages; (d) may deduct from the wages of the worker under a decision of a Court or Arbitration Council or Arbitration Body.
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 Minimum Wage Law (2013)	
The minimum wage law, passed in March 2013, was replaced the 1949 Minimum Wage Act. The law provides a framework for minimum wage determination: the presidential office establishing a tripartite minimum wage committee shall decide minimum wage with industrial variation based on a survey on living costs of workers possibly every two years. This also stipulates equal payment.	
Chapter VII The Duties of the Employee Section 12	The employer: (a) shall not pay wage to the worker less than the minimum wage stipulated under this Law (b) may pay more than the minimum wage stipulated under this Law; (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; (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; (e) in paying minimum wage to the workers working in the agricultural and live stock business, some cash and some property at prevailing regional price may 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	The employer: (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; (b) shall prepare and maintain the lists, schedules, documents and wages of the workers correctly;

Law and Regulation	Description
	<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 VIII</p> <p>The Rights of the Workers Relating to the Minimum Wage</p> <p>Section 14</p>	<p>A worker working in any establishment relating to this Law:</p> <p>(a) has the right to obtain the minimum wage stipulated under this Law or, if the employer pay more than the said wage;</p> <p>(b) has the right to continue to enjoy the pay paid more, if the pay received is more than the minimum wage stipulated under this Law, before the coming into force of this Law;</p> <p>(c) has the right to enjoy the minimum wage stipulated under this Law, if the minimum wage contained in the employment agreement is less than the minimum wage stipulated under this Law;</p> <p>(d) has the right to enjoy not less than the minimum wage stipulated for each work where he is working when working in two or more works;</p> <p>(e) has the right to enjoy the stipulated minimum wage for the time worked in the part-time job, hourly job;</p> <p>(f) has the right to enjoy a holiday per week with pay in the salary-paid work. If he is employed in such holiday, he shall have the right to obtain over-time fee in accord with the existing law;</p> <p>(g) if working less than the working hours per day stipulated in a daily-waged job is not due to reduced working according to the desire of the worker, or if work has to be paused due to the failure of employer to give job, the full wage shall be paid as if the work is done full-time;</p> <p>(h) has the right to enjoy the stipulated minimum wage without discriminating between man and woman;</p> <p>(i) has the right to enjoy the minimum wage in cash, if he is a worker working in the commercial, production and service business. Moreover, if the specific benefits, interests or opportunities are to be paid, it may be paid in cash or partly in cash and partly in property at prevailing regional price jointly according to the desire of the worker;</p> <p>(j) if he is a worker working in the agricultural and livestock breeding business, the minimum wage may be enjoyed in some cash and some property at prevailing regional price jointly according to local custom or desire of the majority of workers or collective agreement for the worker and his family in accord with the stipulations.</p>
Chapter X	Any employer:

Law and Regulation	Description
Prohibitions and Penalties Section 22	<p>(a) shall not fail to pay the workers the minimum wage stipulated under this Law;</p> <p>(b) shall not pay to the workers less than the minimum wages and other benefits which is entitled by the worker under section 14;</p> <p>(c) relating to the accounts, schedules, documents and lists of wage of the workers:</p> <p>(i) shall not make false entry, deceitful recording or false and deceitful reporting;</p> <p>(ii) shall not fail to report to the relevant department in accord with the stipulations;</p> <p>(iii) shall not fail to produce when required by the inspection officer;</p> <p>(d) shall not fail to go and accept inspection when summoned by the inspection officer;</p> <p>(e) shall not obstruct or interfere with the inspection officer who comes and inspects on duty.</p>
Section 24	<p>Any employer:</p> <p>(a) shall not violate any term and condition contained in the minimum wage notification;</p> <p>(b) shall not fail to inform the workers relating to the rates of minimum wage concerning to his workers among the rates of minimum wage stipulated under this Law and announce at the place where the workers are able to see it in the work centre and workplace;</p>
The Leave and Holidays Rules (1951, partially revised in 2018)	
<p>This act has been used as the basic framework for leaves and holidays for workers with minor amendment in 2006 and 2014. This defines the public holidays that every employee shall be granted with full payment. It also defines the rules of leaves for workers including medical leave, earned leave and maternity leave.</p>	
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>

Law and Regulation	Description
	(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.
Chapter (5) Duties and Responsibilities of an Employer Section 50	<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>
Public Health Law (1972)	
Chapter 2 Prevention of Public Health Objectives	<p>To ensure the public health include not only employees but also resident people and cooperation with the authorized person or organization of health department. This law focuses as follows:</p> <p>The project owner has to cooperate with the authorized person or organization in line with the section 3 and 5 of said law.</p>

Law and Regulation	Description
	<p>The project proponent has to abide by any instruction or stipulation for public health under the section 3 of said law.</p> <p>The project proponent has to allow any inspection, anytime, anywhere if it is needed under the section 5 of said law.</p>
Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)	
Chapter 2 Prevention and Response Section 3	<p>(a) In order to prevent the outbreak of communicable diseases, the Department of Health shall implement the following activities systematically under the guidance of the Ministry of Health:</p> <p>(i) immunization of children by injection or orally;</p> <p>(ii) immunization of those who have attained eligible target group including adult by injection or orally, when necessary;</p> <p>(iii) carrying out health education activities relating to communicable disease;</p> <p>(iv) carrying out the activities of surveillance, prevention and control concerning communicable disease;</p> <p>(v) carrying out the activities of medical examination for prevention of communicable disease in cross-border entrance and exit of the country, international airport, seaport, other necessary airport, seaport and bus terminal;</p> <p>(vi) prohibition or restriction of movements at home, hotel, motel and guest house;</p> <p>(vii) isolation of infected person of communicable disease or suspect of being infected there with;</p> <p>(viii) carrying out the activities of spraying, immunization by injection or orally and environmental sanitation necessary for prevention and control according to communicable diseases;</p> <p>(ix) giving advice to and coordinating with relevant Government departments, organizations and non-governmental organizations for construction of healthy housing, obtaining safe drinking water and fresh water for use, proper waste disposal in order to prevent occurrence of communicable disease for workers who are carrying out activities of social and economic development;</p> <p>(x) carrying out other functions prescribed by the Ministry of Health, from time to time.</p>
Section 4	The public shall comply with the measures undertaken by the Ministry of Health and the Department of Health under section 3 in respect of prevention of the occurrence and spread of communicable disease and control thereof."
Section 9	<p>Sub-sections (d) and (e) contained in section 11 of the Prevention and Control of Communicable Diseases Law shall be substituted as follows:</p> <p>"(d) other necessary investigation;</p> <p>(e) prohibition of the right of movement of the vehicle carrying animal or animal product suspected of having epidemic disease."</p>
Section 11	After sub-section (e) of section 14 of the Prevention and Control of Communicable Diseases Law, sub-section (f) shall be inserted as follows:

Law and Regulation	Description
	"(f) right of movement of the vehicle carrying animal or animal product suspected of having epidemic disease."
Occupational Safety and Health Law (2019)	
Purpose:	To effectively implement measures related to safety and health in every industry and to set occupational safety and health standards;
Section-26 Sub-section (e)	The project proponent has to provide adequate and relevant personal protective equipment to workers free of charge and make them wear it during work so as not to expose workers to any serious occupational diseases or hazards.
Section-26 Sub-section (1)	The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards.
Section-30 Sub-section (a)	The worker shall wear or use at all times any protective clothes, equipment and tools provided by the employer for the purpose of safety and health.
Section-30 Sub-section (d)	The worker shall proper and systematic use any equipment and tools, machines, any parts of the machines, vehicles, electricity and other substances being used at the workplace.
Section-30 Sub-section (e)	The worker shall take reasonable care for the safety and health of himself/ herself and of other persons who may be affected by his/ her acts or omissions at work.
Natural Disaster Management Law (2013)	
Chapter II Objectives Section 3	<p>The objectives of this Law are as follows:</p> <ul style="list-style-type: none"> (a) to implement natural disaster management programmes systematically and expeditiously in order to reduce disaster risks; (b) to form the National Committee and Local Bodies in order to implement natural disaster management programmes systematically and expeditiously; (c) to coordinate with national and international government departments and organizations, social organizations, other non-government organizations or international organizations and regional organizations in carrying out natural disaster management activities; (d) to conserve and restore the environment affected by natural disasters; (e) to provide health, education, social and livelihood programmes in order to bring about better living conditions for victims.
Chapter VI Natural Disaster Management Section 13	<p>The department, organization or person that has been assigned responsibility under this Law:</p> <ul style="list-style-type: none"> (a) shall undertake the following functions after laying down the plan in accord with the natural disaster management plans in order to reduce damage and losses that are likely to be caused by natural disaster; <ul style="list-style-type: none"> (i) preparatory and preventive measures for natural disaster risk reduction in pre-disaster period; (ii) emergency responses including search and rescue during natural disaster;

Law and Regulation	Description
	<p>(iii) rehabilitation and reconstruction activities for improving better living standard in post disaster period and conservation of the environment that has been affected by natural disaster;</p> <p>(b) shall give priority and protect infants, the elderly, the disabled and women (especially pregnant women or mothers and suckling mother) in carrying out the functions contained in sub-section (a);</p> <p>(c) shall refrain from the act that causes injuring human dignity in supporting the victims.</p>
Chapter VIII Offence and Penalties Section 25	Whoever, if the natural disaster causes or is likely to be caused by any negligent act without examination or by willful action which is known that a disaster is likely to strike, shall be punished with imprisonment for a term not exceeding three years and may also be liable to fine.
Section 26	Whoever interferes, prevents, prohibits, assaults or coerces any natural disaster management to the department, organization or person assigned by this Law shall, on conviction, be punished with imprisonment for a term not exceeding two years or with fine or with both.
Section 27	Whoever misinforms about the natural disaster for the purpose of dread to the public shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both.
Section 28	<p>Any department, organization or person assigned by this Law commits any of the following acts or omissions shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both:</p> <p>(a) falsification of data on damage and losses caused by natural disasters dishonestly;</p> <p>(b) willful failure to perform assigned responsibility.</p>
Section 29	Whoever violates any prohibition contained in rules, notifications and orders issued under this Law shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both.
Section 30	<p>Whoever commits any of the following acts or omissions shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both:</p> <p>(a) willful failure to comply with any of the directives of the department, organization or person assigned by this Law to perform any of the natural disaster management;</p> <p>(b) entering into the area or building affected by natural disaster without permission;</p> <p>(c) utilizing, trading, preventing or destroying food, relief items and rehabilitation materials provided for victims dishonestly;</p> <p>(d) making a false application for food, relief items and rehabilitation materials or cash assistance to the department, organization or person assigned by this Law as it is affected by natural disaster.</p>
Section 31	Whoever fails willfully to comply with the direction of remove or evacuation from an area or building at risk natural disaster to the public in such place for the purpose of reduction of damage and losses when the natural disaster strikes or it will be a natural disaster and for the purpose of no obstruction to the prevention and reduction activities of the

Law and Regulation	Description
	natural disaster shall, on conviction, be punished with imprisonment for a term not exceeding one month or with fine or with both.
Myanmar Engineering Council Law, 2013	
Chapter 2 Objectives Section 3	The Objectives of this law are as follows: (a) to develop the dignity, ethical principles and ability of Myanmar citizen engineers, graduate technologists and technicians who are working in the engineering services (b) to explore beneficial, useful and good methods to research and develop the State's natural resources and human resources with the least environmental impact by a combination of engineering technology and information technology; (c) to guide, control, maintain and take necessary action with regard to specified standards and norms relating to specified subjects, systematic methods, safety and ethical principles and duties in teaching engineering subjects and in technological research and services; (d) to perform engineering and technological activities of the State and tasks assigned by the relevant ministry or organization from time to time;
Chapter 13 Prohibitions and Penalties Section 37	No one shall perform any engineering work and technological work which are specified as being dangerous to the public by a rule enacted under this law without having received a registration certificate issued by the council, except for engineers appointed in a government department or an organization in the performance of their duties.
Section 37	No engineer, graduate technologist and technician shall use, together with his name, a title which is not compatible with his status.
Section 38	No registered engineer, graduate technologist and technician- (a) shall transfer his registration certificate to anyone or allow it to be used by anyone; (b) shall fail to return his registration certificate to the council within 30 days from the day on which a decision is passed, or an administrative action is taken, under this law to cancel the registration certificate.
Section 39	Anyone convicted of having violated the prohibition contained in section 37 shall be punished with imprisonment for not more than 2 years or with a fine or with both.
Section 40	any registered engineer, graduate technologist or technician convicted of having violated the prohibition contained in section 38 shall be punished with imprisonment of not more than 1 year or with a fine or with both.
Section 41	Any registered engineer, graduate technologist or technician convicted of having violated the prohibition contained in 39 shall be punished with imprisonment of not more than 1 year or with a fine or with both.
Section 42	Any registered engineer, graduate technologist or technician convicted of having violated any prohibition under this law shall be punished with imprisonment of not more than 6 months or with a fine or with both.
Myanmar Fire Brigade Law, 2015	
Chapter II Objectives	The objectives of this Law are as follows:

Law and Regulation	Description
Section 3	<p>(a) to prevent destruction of State-owned property, private property, cultural heritage and the lives and property of the public by fire and other natural disaster;</p> <p>(b) to organize the Fire brigade systematically and to train members of the fire brigade;</p> <p>(c) to carry out extinguishing fire, prevention and search and rescue when fire, other natural disaster, epidemic disease or any kind of sudden disaster occurs;</p> <p>(d) to educate, organize and incite extensively so as to achieve public cooperation when any disaster occurs;</p> <p>(e) to participate and help, if necessary, for the State safety, peace of the public and the rule of law</p>
Chapter VIII Activities for Fire Safety Section 15	<p>The different levels of Fire Safety Body shall:</p> <p>(a) perform the activities for fire safety in accord with the procedures laid down by the Central Body;</p> <p>(b) organize and educate to obtain the cooperation of the public in the activities for fire safety;</p> <p>(c) supervise as may be necessary the participation of all the relevant members of fire brigade in accord with the work programmes laid down by the Central Body when fire hazard, other natural disaster, epidemic disease or sudden disaster occurs;</p> <p>(d) appoint fire safety warning groups in coordination with the relevant administrative organizations.</p>
Section 16	<p>The person-in-charge of the Township Fire Services Department shall:</p> <p>(a) issue, from time to time, the directives on fire safety to be abided by the residents in the city, ward or village - tract;</p> <p>(b) inspect or cause to inspect in accord with the stipulations whether the residents in the city, ward or village - tract abide by the directives issued under sub-section (a) and arrange to enable warning or taking action, as may be necessary, against those who do not abide by.</p>
Chapter XI Prohibitions Section 24	No person shall fail to abide by the directives of fire safety issued under section 16 by the head of the relevant Township Department of Fire Services.
Section 25	<p>The owner or manager of the factory, workshop, bus terminal, airport, port, hotel, motel, lodgings, condominium, market, department, organization or business exposed to fire hazard shall, in accord with the directive of the Department of Fire Services:</p> <p>(a) not fail to form the Reserve Fire Brigade;</p> <p>(b) not fail to provide fire safety equipment.</p>
Section 26	No person shall, knowing that there is no outbreak of fire, report fraudulently the outbreak of fire to the Fire brigade.
Section 25	No person shall, without cause, obstruct, block, disturb, or attack the members of the fire brigade and vehicles which departed to extinguish the fire and direct by any means to the place which is not related to the outbreak of fire.

Law and Regulation	Description
Protection and Preservation of Cultural Heritage, 1998	
Chapter II Objectives Section 3	The objectives of this Law are as follows: (a) to implement the protection and preservation policy with respect to perpetuation of cultural heritage that has existed for many years; (b) to protect and preserve the cultural heritage regions and the cultural heritage therein so as not to deteriorate due to natural disaster or man-made destruction; (c) to uplift hereditary pride and to cause dynamism of patriotic spirit of citizens by protecting and preserving the cultural heritage regions. (d) to promote public awareness and will as to the high value of the protection and preservation of the cultural heritage regions; (e) to protect the cultural heritage regions from destruction; (f) to carry out protection and preservation of the cultural heritage regions in conformity with the International Convention approved by the State.
Chapter VI Applying for Prior Permission, Scrutinizing and Issuing Section 13	A person desirous of carrying out one of the following shall abide by the provisions of other existing laws and also apply to the Department in accordance with stipulations to obtain prior permission under this Law : (a) within the ancient monumental zone or the ancient site zone: (1) constructing or extending a building; (2) renovating the ancient monument or extending the boundary of its enclosure; (b) within the protected and preserved zone, constructing, extending, renovating a hotel, motel, guesthouse, lodging house or industrial building or extending the boundary of its enclosure; (c) within the cultural heritage region (1) carrying out the renovation and maintenance work of the ancient monument without altering the original ancient form and structure or original ancient workmanship; (2) carrying out archaeological excavations; (3) building road, constructing bridge, irrigation canal and embankment or extending the same.
Chapter VII Prohibitions Section 22	No person shall construct a building which is not in conformity with the conditions prescribed region wise by the Ministry of Culture in the cultural heritage region.
The Protection and Preservation of Ancient Monument Law (2015)	
Purpose	To ensure the protection of the ancient monument and information about it if it was in the project area. This law focuses as follows;
Section 12	-The project proponent has to report to the village-tract or ward administrators if the project proponent will find any ancient monument under the ground or on the ground or under the water.
Section 15	The project proponent has to obtain the prior permission of the Department of Ancient Research Museum if the project area is in the prescribed area of the Ancient monument.

Law and Regulation	Description
Sub-section (f) of section 20	The project proponent has to obtain the prior permission, by written, of Department of Ancient Research and National Museum if the project proponent disposes of the chemical and solid waste in the Ancient Monument.
The Conservation of Water Resources and Rivers Law, 2016	
Chapter II Aims Section 3	The aims of this Law are as follows: (a) to conserve and protect the water resources and rivers system for beneficial utilization by the public; (b) to smooth and safety waterways navigation along rivers and creeks; (c) to contribute to the development of State economy through improving water resources and river system; (d) to protect environmental impact.
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. (b) catch aquatic creatures within river-creek boundary, bank boundary or waterfront boundary with poisonous materials or explosives. (c) dispose of disposal soil and other materials from panning for gold, gold mineral dredging or resource production in the river and creek, into the river and creek or into the water outlet gully which can flow into the river and creek.
Section 11	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. (b) catch aquatic creatures within river-creek boundary, bank boundary or waterfront boundary with poisonous materials or explosives. (c) dispose of disposal soil and other materials from panning for gold, gold mineral dredging or resource production in the river and creek, into the river and creek or into the water outlet gully which can flow into the river and creek.
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

Law and Regulation	Description
	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.
Chapter VII Miscellaneous Section 30	Any government department and organization or any person desirous of constructing drainage, utilizing river water intake, constructing bridges spanning rivers, connecting underground pipe, connecting underground electric power cable, connecting underground telecom cable or digging in rivers and creeks, bank boundary and waterfront boundary, under the requirement of work, shall in order not to adversely affect the water resources and rivers and creeks, carry out only after obtaining the approval of the Ministry of Transport.
Underground Water Act (21st June, 1930)	
The underground water act enacted on the date of 21st June in 1930 whereas it is expedient to conserve and protect underground sources of water supply in the Union of Burma. This act prohibits sinking of a tube for the purpose of obtaining underground water except under and in accordance with the terms of a license granted by the water officer. Township Officer or sub-divisional officer had power to close a license tube after exercising jurisdiction over the local area concerned and the expense of such closure shall be recoverable from the owner of the tube as if it were an arrear of land-revenue.	
Section 3	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. 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.
Section 5	Every person obtaining or attempting to obtain underground water shall supply the water officer with such information as the President of the Union may by rule prescribe.
Section 6	The President of the Union may make rules 1- (a) prescribing the conditions subject to which licences may be granted by the water officer under section 3; (b) prescribing the form of and the procedure for granting such licences and the fees payable for the issue thereof; (c) prescribing the information to be supplied to the water officer under section 5.
The Electricity Law (2014)	
In 2014, the new Electricity Law, a comprehensive piece of legislation covering licensing, a new regulatory commission, standards, inspection, tariff, and restrictions, replaced the Electricity Law of 1984. The Electricity Law divides projects into "small" (up to 10 MW), "medium" (between 10 MW to 30 MW) and large (upwards of 30 MW); the states and regions can issue permits for small and medium power plants. In case these plants are not connected to the national grid, the Union Government Ministry is not the primary	

Law and Regulation	Description
authority involved. The authorities have a legal right to use land for the purpose of power plants under the Electricity Law, and have the right to expand and maintain their facilities. The law also provides that the authorities can build transmission lines in accordance with existing laws.	
The Motor Vehicles Law, 2015	
Chapter 2 Objectives Section 3	The main objectives of this law are as follows: (a) For the safe driving of motor vehicles in public areas through registration according to official rules and regulations. (b) To provide driving licenses for driving particular types of motorized vehicles after qualification checks. (c) For the easy flow of road users and for the protection against road risks and vehicle perils. (d) To avoid traffic congestion and to use high technology transportation systems efficiently in order to implement protection against road risks and vehicle perils. (e) To reduce environmental pollution caused by motor vehicles.
Chapter (3) Motor vehicle registration Section 4	Every owner of a motor vehicle must register the vehicle with the registration officer.
Section 5	The owner of a motor vehicle must maintain the vehicle in a safe condition equal to the standard condition.
Section 6	The registration officer may not register the motor vehicle if the vehicle is disqualified for failing to comply with safety standards or the engine is broken or if the applicant has failed to disclose previous facts about former registrations of the vehicle.
Section 8	(a) The owner of the vehicle can request the registration officer to issue a temporary registration according to the regulations. (b) The temporary registration according to this section cannot be valid for more than three months. And this law does not allow temporary registration more than one time.
Section 10	The owner of a vehicle must notify the registration officer if the main parts of his/her vehicle needs to be changed or repaired.
Chapter (9) Prohibitions Section 45	No one is allowed to drive, request someone to drive, or park, motor vehicles in public places under the following conditions: (a) The motor vehicle is not registered. (b) The registration has been suspended, revoked or expired; the registration card is not displayed. (c) The registration card has been revoked or is expired.
Section 46	No one is allowed to drive, or allow to drive, motor vehicles in public places without risk insurance for others. This prohibition does not extend to passengers.
Section 47	(a) No one is allowed to drive a motor vehicle in public places without carrying the driving license with him/her.

Law and Regulation	Description
	<p>(b) No one is allowed to drive a motor vehicle in public places without a driving license.</p> <p>(c) The owner of, and the person responsible for, a motor vehicle are not allowed to give permission to someone without a driving license to drive in public places.</p>
Section 50	<p>No one is allowed to do the following in public places:</p> <p>(a) Driving above the speed limit or below the minimum speed.</p> <p>(b) Driving a motor vehicle which endangers others.</p> <p>(c) Driving a motor vehicle after the consumption of narcotic drugs or alcohol.</p>
Section 50	<p>No one is allowed:</p> <p>(a) To operate a business of manufacturing, selling or equipping motor vehicles without a business license.</p> <p>(b) To operate a business of maintaining or repairing motor vehicles without a business license.</p>
The Forest Law, 3rd November, 1992	
Chapter II Basic Principles Section 3	<p>This Law shall be implemented in accordance with the following basic principles: -</p> <p>(a) to implement the forestry policy of the Government;</p> <p>(b) to implement the environmental conservation policy of the Government;</p> <p>(c) to promote the sector of public co-operation in implementing the forestry policy and the environmental conservation policy of the Government;</p> <p>(d) to develop the economy of the State, to contribute towards the food, clothing and shelter needs of the public and for perpetual enjoyment of benefits by conservation and protection of forest; (e) to carry out in accordance with international agreements relating to conservation of forests and conservation of environment; (f) to prevent the dangers of destruction of forest and bio-diversity, outbreak of fires, infestation of insects and occurrence of plant disease;</p> <p>(g) to carry out simultaneously conservation of natural forests and establishment of forest plantations; (h) to contribute towards the fuel requirement of the country.</p>
Chapter III Constitution of Reserved Forest and Declaration of Protected Public Forest Section 8	<p>(a) A standing teak tree wherever situated in the State is owned by the State;</p> <p>(b) The Minister may declare, alter or cancel according to the locality the species of reserved trees which are to be conserved by the Forest Department.</p>
Chapter V Establishment of Forest Plantation Section 16	<p>A person having obtained the right to extract forest produce on a commercial scale who has the responsibility of establishing forest plantations or carrying out natural regeneration under a permit for the State shall carry out the same at his own expense and in accordance with stipulation.</p>
Chapter VI	<p>A person who has obtained permission for extraction of forest produce shall: -</p>

Law and Regulation	Description
Permission for Extraction of Forest Produce Section 16	(a) abide by the conditions contained in the permit; (b) abide by the orders, directives, prohibitions and restrictions issued by the Forest Department in accordance with this Law; (c) pay the royalties, security deposits and advances due; (d) affix the mark after measuring in the manner prescribed or affix the property- mark which has been registered.
Chapter VII Removal of Forest Produce Section 23	a) Whoever is desirous of moving any forest produce from one township to another within the country shall apply for a removal pass from the Forest Officer empowered by the Director- General for this purpose. (b) The provision of sub-section (a) shall not apply to the following cases: - (i) moving forest produce within the area permitted for extraction thereof; (ii) moving minor forest produce not exceeding the prescribed quantity and not on a commercial scale; (iii) moving from one township to another in a City Development area.
Chapter IX Establishment of Wood-based Industry Section 30	A private entrepreneur who is desirous of establishing a sawpit, sawmill, tongue-and-groove mill, plywood mill, veneer mill or a wood-based industry with the exception of wood-based cottage industries and furniture industries has the right to establish the same only after obtaining a permit from the Forest Officer empowered for this purpose.
Chapter X Search, Arrest and Administrative Action Section 34	If a person who has obtained permission to extract forest produce or his agent or his labourer violates any condition of the permit, the person granting permission to extract forest produce may pass any of the following orders: - (a) causing the suspension of the whole or any portion of the work carried out under the permit; (b) causing payment of the prescribed penalty to be made and permitting the work to be carried on; (c) cancelling the permit; (d) cancelling the permit and confiscating the security deposit and advances; if it is considered necessary causing payment of the prescribed penalty.
Chapter XII Offences and Penalties Section 40	Whoever commits any of the following acts shall, on conviction, be punished with fine which may extend to kyats 5,000 or with imprisonment for a term which may extend to 6 months or with both: (a) trespassing and encroaching in a reserved forest; (b) pasturing domestic animals or permitting domestic animals to trespass in a reserved forest; (c) breaking up any land, clearing, digging or causing damage to the original condition of the land without a permit in a reserved forest; (d) causing damage to a water-course, poisoning the water, using chemicals or explosives in the water in a reserved forest; (e) catching animals, hunting or fishing in a reserved forest; (f) kindling, keeping and carrying any fire or leaving any fire burning which may set fire to the forests in a reserved forest;

Law and Regulation	Description
	<p>(g) moving forest produce without submitting to examination at the revenue station;</p> <p>(h) violating any provision of the rule, procedure, order, directive or notification issued under this Law</p>
National Land Use Policy, 2014 October	
<p>Chapter I</p> <p>Basic Principles of the National Land Use Policy</p> <p>Section 8</p>	<p>In terms of the National Land Use Policy:</p> <p>(a) It shall use the land resources of the State sustainably and systematically by conserving and protecting them for the interest of all peoples of the State;</p> <p>(b) It shall enact the National Land Law which harmonize the existing laws relating to use of land resources and land tenures in the whole country including rural and urban areas and which may be implemented systematically;</p> <p>(c) It shall cause to decide the matters relating to land disputes arisen between the land users and the stakeholders transparently and truly in accord with the National Land Law;</p>
Section 8	<p>In implementing the continued entry of the foreign direct investments, sustainable economic development, effectiveness of the environmental conservation and protection, social harmonization, firmness of land tenures, immoveable property right and settlement of land dispute:</p> <p>(a) It shall increase responsible undertaking and respect the rule of law;</p> <p>(b) It shall strengthen the clean governance system by carrying out land use management, land tenure management in accord with law systematically and truly;</p> <p>(c) It shall establish modernized systems to enable to have access to correct information relating to land use management and land tenure management;</p> <p>(d) It shall establish the land dispute settlement mechanism which is easily implementable and impartial;</p> <p>(e) It shall arrange and carry out coordination process with the stakeholders transparently.</p>
<p>Chapter II</p> <p>The Situation of the Existing Land Management Mechanism</p> <p>Section 12</p>	<p>The State has arranged and carried out to expand agricultural land use by the State-owned organizations, cooperative societies, associations, joint ventures, other organizations which acquire agricultural land for businesses and individual agriculturalists after forming the Vacant, Fallow and Virgin Lands Management Central Committee under the Notification 44/91 dated 13th November, 1991.</p>
The Protection of Wildlife and Conservation of Natural Areas Law ,1994 (Amended in 2018)	
<p>Chapter II</p> <p>Objectives</p> <p>Section 3</p>	<p>The objectives of this Law are as follows: -</p> <p>(a) to implement the Government policy for wildlife protection;</p> <p>(b) to implement the Government policy for natural areas conservation;</p>

Law and Regulation	Description
	<p>(c) to carry out in accordance with the International Conventions acceded by the State in respect of the protection and conservation of wildlife, ecosystems and migratory birds;</p> <p>(d) to protect endangered species of wildlife and their natural habitats;</p> <p>(e) to contribute for the development of research on natural science;</p> <p>(f) to protect wildlife by the establishment of zoological gardens and botanical gardens.</p>
Chapter V Protected Wildlife Section 15	<p>The Director General shall, with the approval of the Minister:</p> <p>(a) determine and declare endangered species of wild animal which are to be protected according to the following categories:</p> <p>(i) completely protected species of wild animals;</p> <p>(ii) normally protected species of wild animals;</p> <p>(iii) seasonally protected species of wild animals;</p> <p>(b) determine and declare the endangered species of wild plants and their nature habitats thereof;</p> <p>(c) lay down and carry out measures for the preservation of protected wildlife species;</p> <p>(d) co-ordinate with the relevant department or organization if the wildlife which are to be determined for protection are under the administration of another Government department or Government organization.</p>
Chapter X Appeal Section 33	<p>A person dissatisfied with an administrative order passed by a Forest Officer may file an appeal to the Director General within 30 days from the date of such order.</p>
Chapter XI Offences and Penalties Section 35	<p>Whoever commits any of the following acts shall, on conviction be punished with imprisonment for a term which may extend to 3 years or with fine which may extend to kyats 10,000 or with both: -</p> <p>hunting without a licence;</p> <p>violation of any condition of the hunting licence;</p> <p>raising without permission, for commercial purpose normally protected wild animals and seasonally protected wild animals;</p> <p>causing water and air pollution, causing damage to a water-course or putting poison in the water in a natural area;</p> <p>possessing or disposing of pollutants or mineral pollutants in a natural area;</p> <p>establishing and operating a zoological garden or a botanical garden without a licence.</p>
Section 36	<p>Whoever commits any of the following acts shall, on conviction be punished with imprisonment for a term which may extend to 5 years or with fine which may extend to kyats 30,000 or with both: -</p> <p>(a) killing, hunting or wounding a normally protected wild animal or seasonally protected wild animal without permission, possessing, selling, transporting or transferring such wild animal or any part thereof without permission;</p>

Law and Regulation	Description
	(b) extracting, collecting or destroying in any manner any kind of protected wild plants within the prescribed area without permission; (c) destroying ecosystem or any natural state in the natural area; (d) altering, removing, destroying or obliterating without permission. any boundary mark of a natural area or any boundary mark of a zoological garden or botanical garden administered by the Government or in which the Government has subscribed share capital.
Section 37	Whoever commits any of the following acts shall, on conviction be punished with imprisonment for a term which may extend to 7 years or with fine which may extend to kyats 50,000 or with both: - (a) killing, hunting or wounding a completely protected wild animal without permission, possessing, selling, transporting or transferring such wild animal or any part thereof without permission; (b) exporting without the recommendation of the Director General a completely protected wild animal or a protected wild plant or any part thereof.
Section 38	The provisions of section 36 sub-section (a) or section 37 sub-section (a) shall not apply to: - the possessing as a souvenir or wearing as a traditional custom of any part of normally protected wild animal or a seasonally protected wild animal; the possessing or wearing with a certificate of registration issued under section 27 subsection (b) of any part of a completely protected wild animal; the possessing, use, sale, transport or transfer of a drug prepared from a part of a protected wild animal.

4.2. AUTHORIZED INSTITUTIONS AND RECOMMENDATIONS

The Ministry of Environmental Conservation and Forestry (MOECF) was reformed as the Ministry of Natural Resources and Environmental Conservation (MONREC) on 30th March, 2016 in order to undertake both environmental and natural resources conservation and management more effectively. Under Section 3 of the Environmental Impact Assessment Procedure (2015), pursuant to section 21 of the law and Articles 52, 53 and 55 of the Environmental Conservation Rules, all projects and project expansions undertaken by any organization, which may cause impact on environmental quality that, are required to obtain prior permission. This is to be in accordance with section 21 of the Environmental Conservation Law, and Article 62 of the Environmental Conservation Rules, having the potential to cause adverse impacts, that are required to undertake IEE or EIA or to develop an EMP, and to obtain an Environmental Compliance Certificate (ECC) in accordance with this EIA procedure.

4.3. INTERNATIONAL GUIDELINES

Organizations's Guidelines, World Bank Safeguard Policies, IFC Performance Standards and National Environmental Quality (Emission) Guidelines (2015) are referred for EMP of the proposed factory project.

4.4. INTERNATIONAL AND REGIONAL TREATIES

Myanmar has signed several international treaties related to the environment. However, the contents of those treaties still need to be incorporated into domestic law. Presents a list of the conventions signed by Myanmar to date that are potentially relevant to the Project.

Table 4-2 International and Regional Treaties to Which Myanmar is a Party

Theme	Convention/treaty/agreement	Status*	Focal point
Climate	United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification (UNCCD), Paris, 1994	Accession (1997)	MONREC/FD
Air and climate change	United Nations Framework Convention on Climate Change (UNFCCC), New York, 1992	Ratification	MONREC/ECD, MOT/DMH
	Kyoto Protocol to the Convention on Climate Change, Kyoto, 1997	Accession (2003)	MONREC/ECD
	Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985	Ratification (1993)	MONREC/ECD
	Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 1987 + amendments	Ratification (1993, 2012 for Recent amendments)	MONREC/ECD
	ASEAN Agreement on Transboundary Haze Pollution, Kuala Lumpur, 2002	Ratification (2003)	MONREC
	Paris Agreement to combat climate change and adapt to its effects, 2016	Ratification (2017)	MONREC
Pollution control	Stockholm Convention on Persistent Organic Pollutants (POPs), Stockholm, 2001	Accession (2004)	MONREC/ECD
	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 1989	Accession (2015)	MONREC/ECD
	International Convention for the Prevention of Pollution from Ships (MARPOL), London, 1973 + amendments in 1978	Accession 4/8/1988	MOT
Biodiversity and natural resources	Convention on Biological Diversity (CBD), Rio de Janeiro, 1992	Ratification (1994)	MONREC/ECD
	Cartagena Protocol on Biosafety to the CBD, Cartagena, 2000	Ratification (2008)	MONREC, MOAI

Theme	Convention/treaty/agreement	Status*	Focal point
	Nagoya Protocol on Access and Benefit Sharing (ABS) to the CBD, Nagoya, 2010	Accession (2014)	
	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),	Accession (1997)	MONREC/FD
Theme	Convention/treaty/agreement	Status*	Focal point
	Washington, D.C., 1973 + amendments (1979 Bonn, Germany)		
	Agreement on Establishment of ASEAN Regional Centre for Biodiversity	Ratification (2009)	MONREC/ FD
	ASEAN Agreement on the Conservation of Nature and Nature Resources, Kuala Lumpur, 1985	Signatory (1997)	MOFA
	Ramsar Convention on Wetlands of International Importance especially as Water- fowl Habitat, 1971 + amendments in 1982 and 1987	Accession (2004)	MONREC/ FD
	MRC Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin – April 1995	Became Dialog Partner with MRC in 1996	Directorate of Water Resources and Improvement of River Systems (DWIR) Ministry of Transport
	Agreement between International Union for Conservation of Nature (IUCN), and the government of the Republic of the Union of Myanmar to establish an IUCN Office in Myanmar. This laid the foundation for future collaboration on addressing challenges and maximizing opportunities related to biodiversity conservation and sustainable development in the country.	31 March 2016 Host Country Agreement (HCA) signed	Forest Department, MONREC

Theme	Convention/treaty/agreement	Status*	Focal point
	Mangroves for the Future (MFF) – MFF was founded on the vision, "Healthy coastal ecosystems for a more prosperous and secure future for coastal communities." The vision was supported by a mission statement, "To promote healthy coastal ecosystems through a partnership-based, people focused and policy relevant approach that builds and applies knowledge, empowers communities and other stakeholders, enhances governance, secures livelihoods, and increases resilience to natural hazards and climate change." https://www.mangrovesforthe future.org/what-we-do/focus-areas-and-objectives/we-do/focus-areas-and-objectives/	In 2014, Myanmar joined as the 11th member country.	National Coordinating Body (NCB), which is chaired by the Director General of the Forest Department.
Cultural heritage	The Convention for the Protection of the World Culture and Natural Heritage, Paris, 1972	Acceptance (1994)	MOC
	Declaration on ASEAN Heritage Parks	Signatory (2003)	MONREC/ FD
	Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property, 1970	Ratified	National Cultural Central Committee
	Convention for the Safeguarding of the Intangible Cultural Heritage, 2003	Ratified	National Cultural Central Committee
<p>*All of the terms (Ratification, Accession, Approval and Acceptance) signify the consent of a state to be bound by a treaty and consequently their legal implications are the same. All countries that have ratified, acceded to, approved or accepted a treaty are therefore Parties to it and legally bound by it. (The primary distinction is only between ratification and accession, as only states which have signed a treaty when it was open for signature, can proceed to ratify it. Afterwards, states which have not signed a treaty during the time when it is open for signature can only accede to it. The terms "acceptance" and "approval" are of more recent origin and apply under the same conditions as those that apply to ratification. The uses of these terms have to do with the diversity of legal systems.)</p>			


4.5. COMMITMENT OF B.C.C JEWELRY MFG 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 Yangon City Development Committee regulations, protect, and preserve the project environment from pollution of air, water and land by following laws and guidelines lay down by MONREC.




Daw Khaing Thet Mon
Director
B.C.C. Jewelry Mfg. Company Limited

CHAPTER 5 SURROUNDING ENVIRONMENT

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 desktop study 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.

5.1. METHODOLOGY FOR DATA COLLECTION AND ANALYSIS

The followings are methodologies used for Environmental Management Plan (EMP) for this 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. The analyzed results are mentioned in this chapter.
- Secondary data collection of proposed project site area – Socio economic condition, physical/biological environment, and weather data are collected from official township data of Mingaladon Township, Yangon Region.

5.2. ENVIRONMENTAL BASELINE STUDY

The filed observation for determining the environmental baseline of the proposed project area was undertaken during construction period. The survey team consists of the senior consultant and environmental quality team. The baseline data collected regarding the environmental condition of the project area was conducted in the following section.



Figure 5-1 Environmental Baseline Study Points

To determine the existing baseline ambient air quality status within the project site on 23, December 2022, 24-hours of working period air pollutants level, which include dust (PM₁₀ and PM_{2.5}). To reveal the existing status of baseline air quality, the average ambient air qualities measured were compared with National Environmental Quality (Emission) Guideline.

5.2.1. Indoor Temperature and Humidity

Table 5-1 Relative Humidity and Temperature Measure at Proposed Project

Date and Time	Description	Location	Result value	Environmental parameter air station guideline
23 December 2022 (10:00AM to 4:00 PM)	Relative Humidity (RH) %	16°53'28.72"N 96°13'32.19"E	58.2 (%)	Present condition
	Temperature		38.3 °C	Present condition

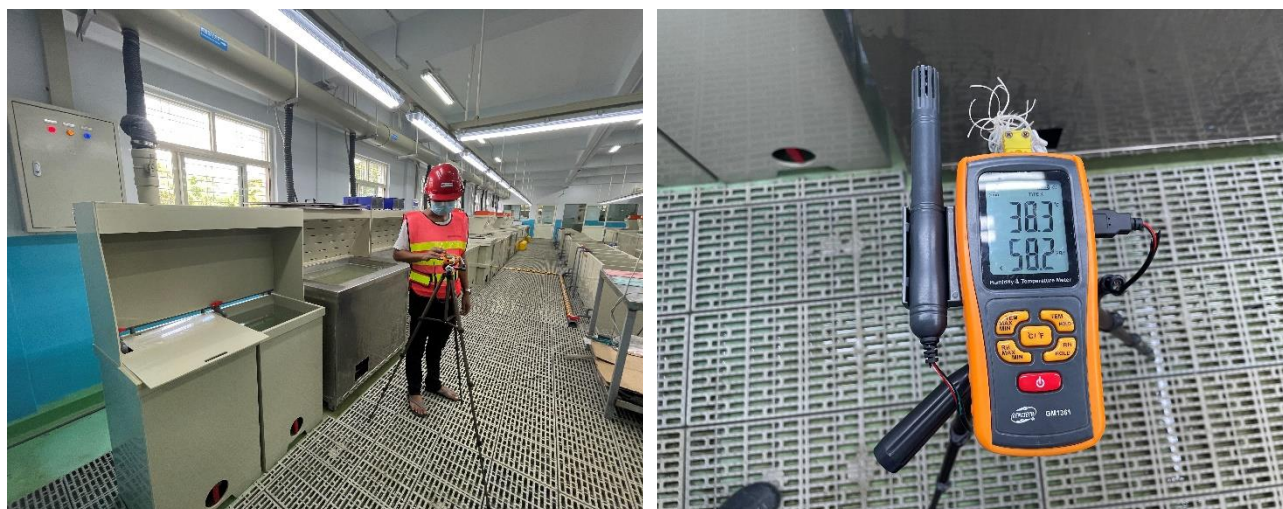


Figure 5-2 Temperature and Humidity Measurement in Operation Area

5.2.2. Air Quality

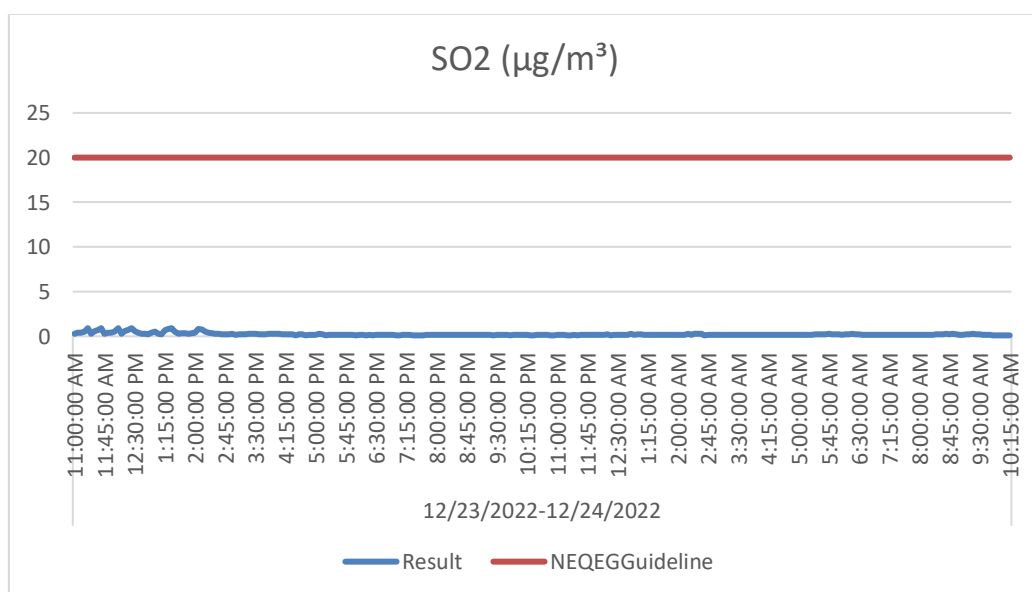
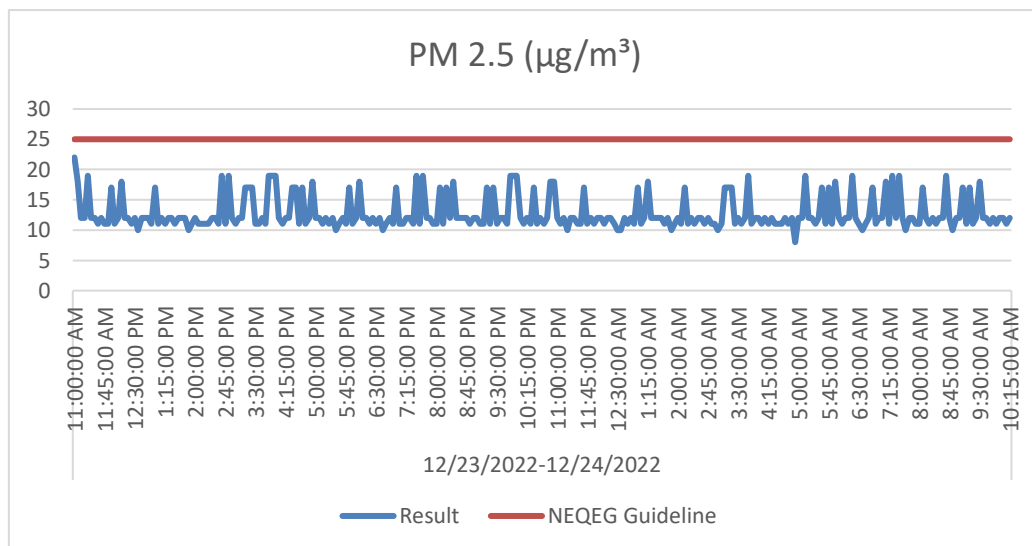
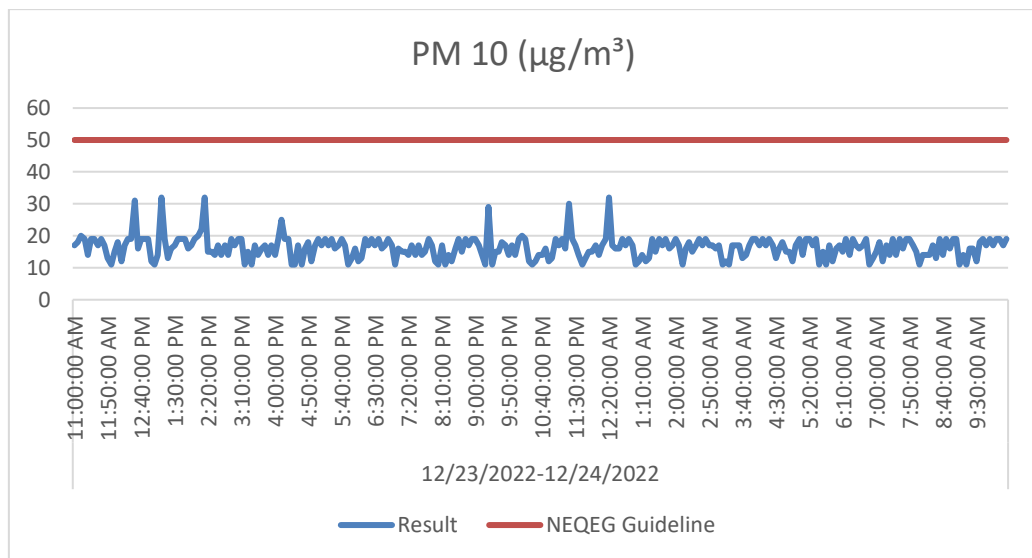
To determine the existing baseline ambient air quality status within the project site on 23, December 2022, 24-hours of working period air pollutants level, which include dust (PM₁₀ and PM_{2.5}) and gases (CO, O₃, SO₂, NO₂, VOC) were measured at the selected site using the AQM – 09 air monitoring station. To reveal the existing status of baseline air quality, the average ambient air qualities measured were compared with National Environmental Quality (Emission) Guideline. The measurement location point is situated at Latitude 16°53'28.88"N Longitude 96°13'32.38"E.

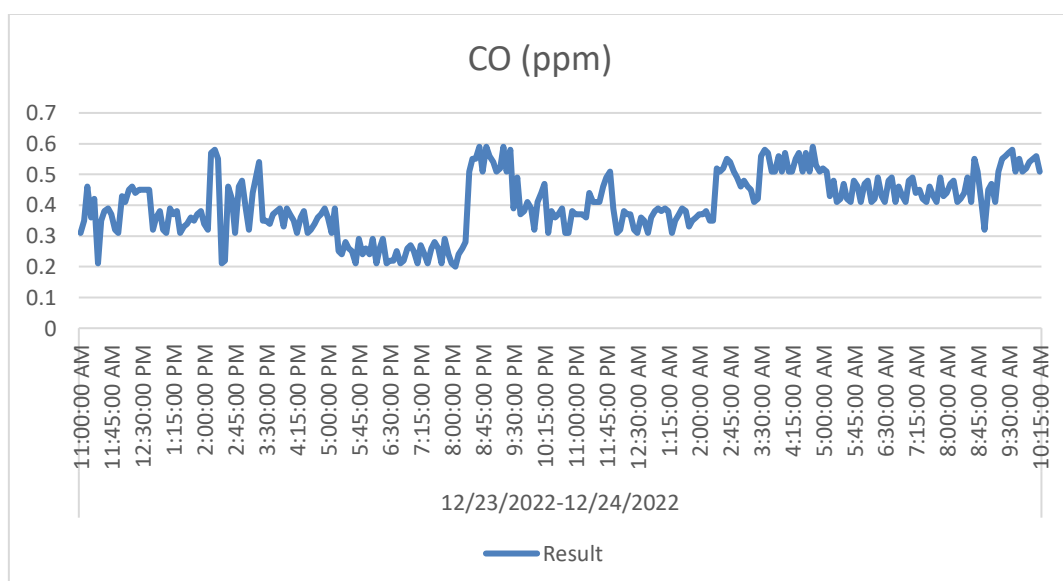
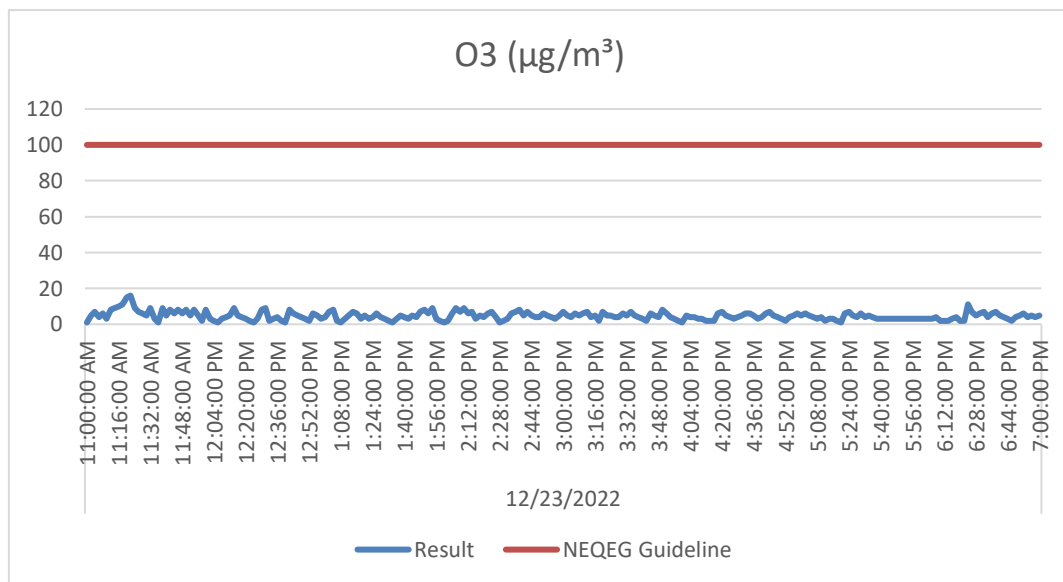
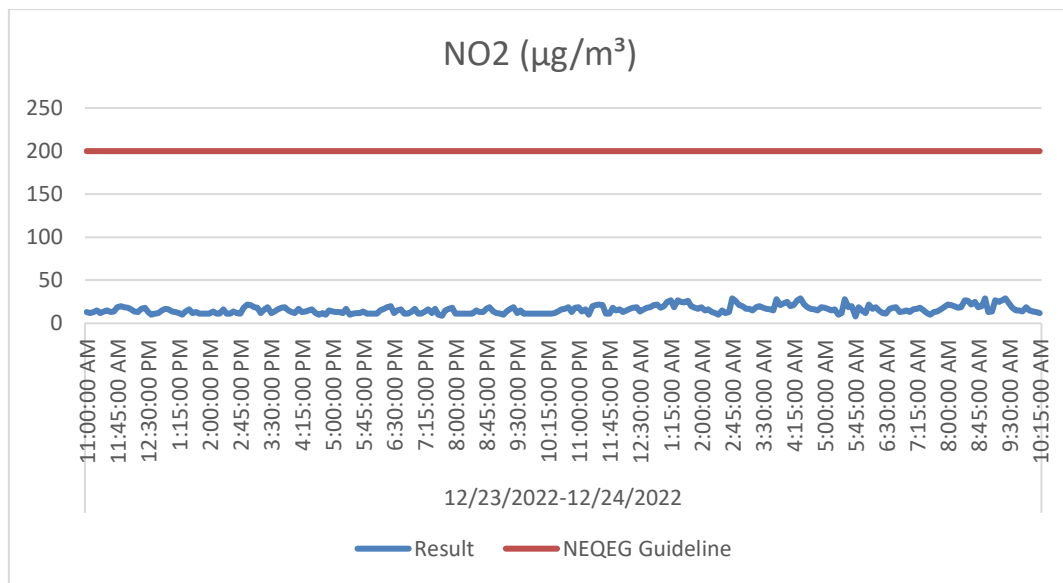
The contents of CO, O₃ and SO₂ concentration level are within the limit of NEQ (emission) guideline, particulate matter (PM₁₀, PM_{2.5}) and gases level of Nitrogen Dioxide (NO₂) are also within the National Environmental Quality (Emission) Guideline. Noise in the workshop area is acceptable when compared with National Environmental Quality (Emission) Guideline. The result of light measurement at operation area (inside the production sector) is good condition to the acceptable level of standard.

Table 5-2 Observed Air Quality Results

Parameters	Observed Value	Guideline Value	Unit	Organization	Period
PM ₁₀	26.49	50	µg/m ³	NEQG	24 hours
PM _{2.5}	16.53	25	µg/m ³	NEQG	24 hours
SO ₂	5.97	20	µg/m ³	NEQG	24 hours
NO ₂	10.25	40	µg/m ³	NEQG	24 hours
O ₃	35.92	100	µg/m ³	NEQG	8 hours
CO	0.53	NG	µg/m ³	-	-
VOC	0.02	NG	ppm	-	24 hours

NEQG = National Environmental Quality (Emission) Guideline





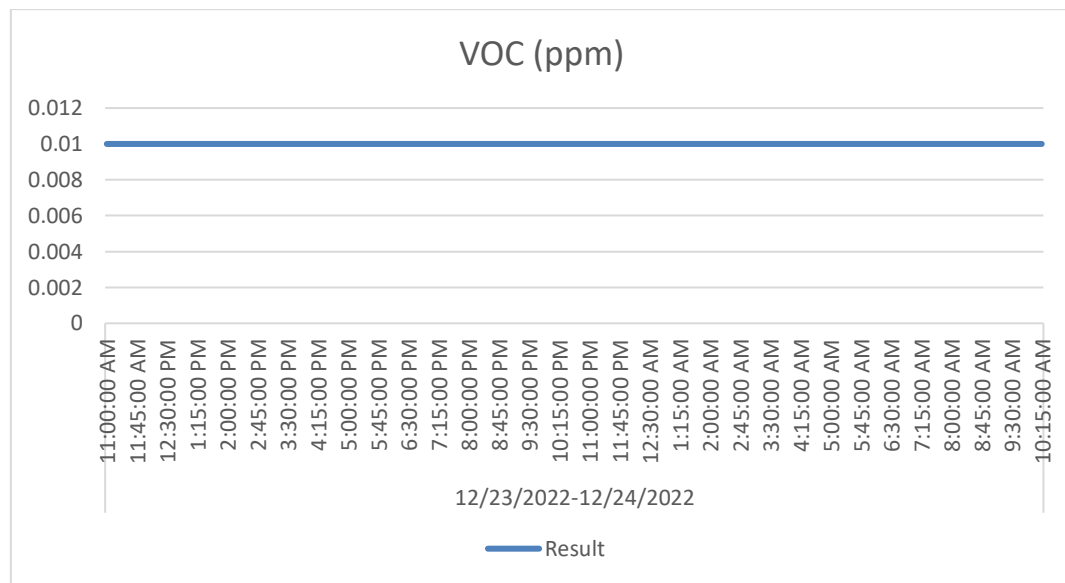


Figure 5-3 Air Quality Result Graphs



Figure 5-4 Air Quality Measurement Photos

5.2.3. Noise

The Noise level was measured by using Digital Sound Level Meter for working 8 hours on 23 December 2022. The average noise level in the project site area is presented in Table 5-3 compared with NEQ guideline. However, according to the Noise source monitoring at operation area (inside the production sector) of noise level is normal the acceptable level of National Environmental Quality (Emission) Guideline. ^[4]

Table 5-3 Noise Level Measurement Result

Date and Time	Location	GPS value	Result value	NEQ Guideline
23.12.2022 (10:00 am to 4:00 pm)	Operation Area	16°53'28.63"N 96°13'32.39"E	59.6 dBA	70 dBA

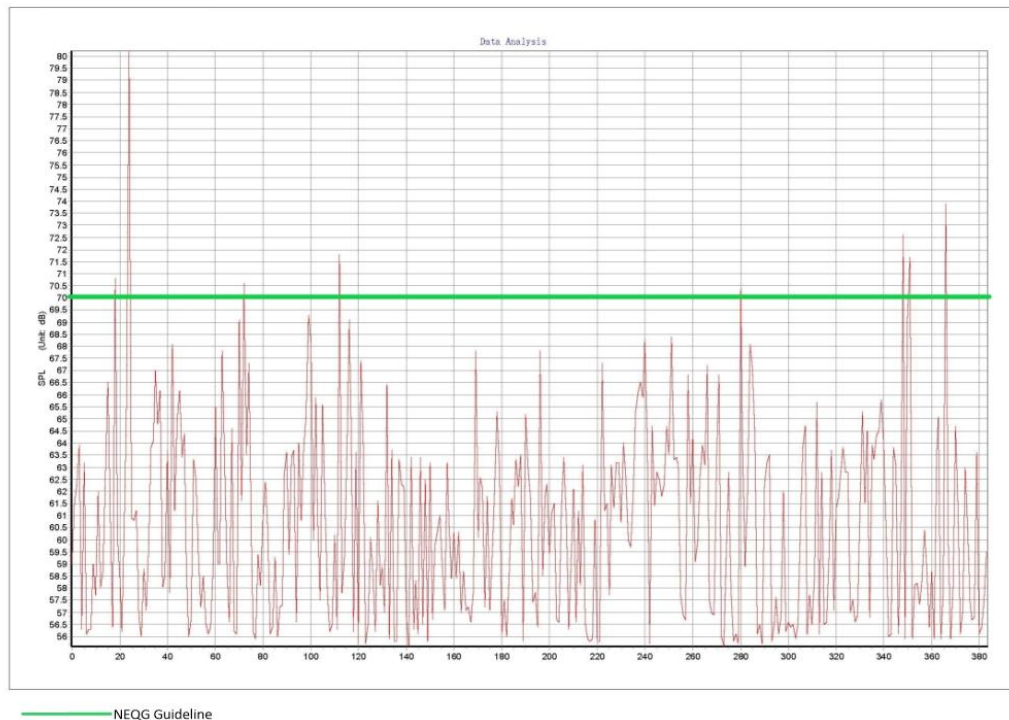


Figure 5-5 Noise Level Result Graph

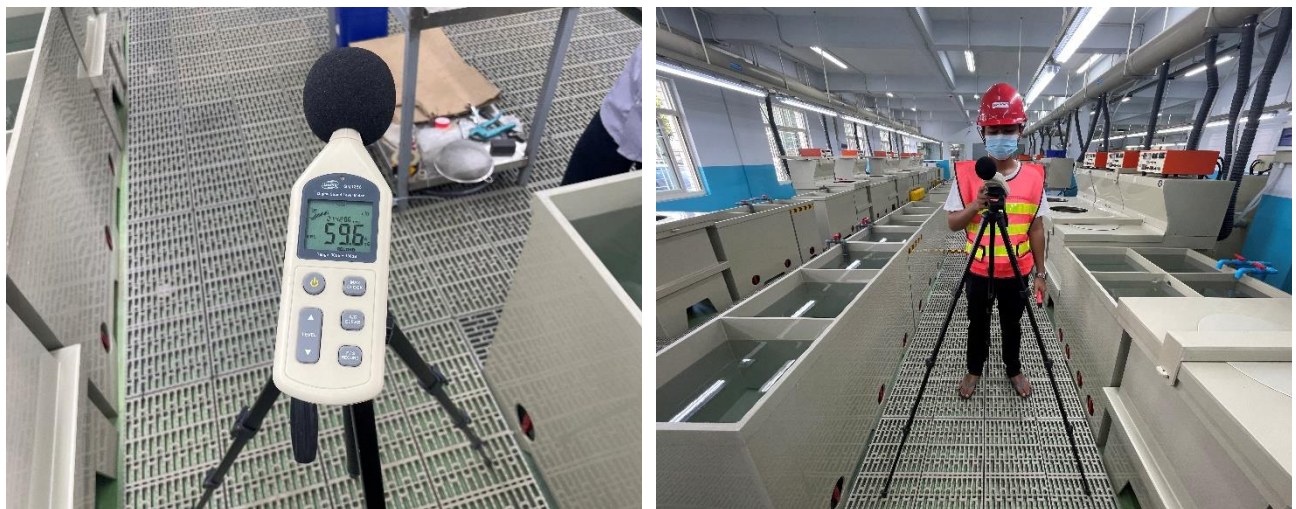


Figure 5-6 Sound level measurement photo

5.2.4. Odor Intensity

The odor intensity (OI) is measured by using OCEANUS (OC-903) portable gas detector for working hours on 23 December 2022. The average odor intensity in the project site area is presented in and compared with NEQ guideline. However, according to the Odor Intensity measurement at operation area, the levels of this areas are within the acceptable level of National Environmental Quality (Emission) Guideline.

Table 5-4 Odor Intensity Measurement Result

Date	Location	Measurement Result
23 December 2022	16°56'28.57"N 96°13'32.53"E	0.35 ppm

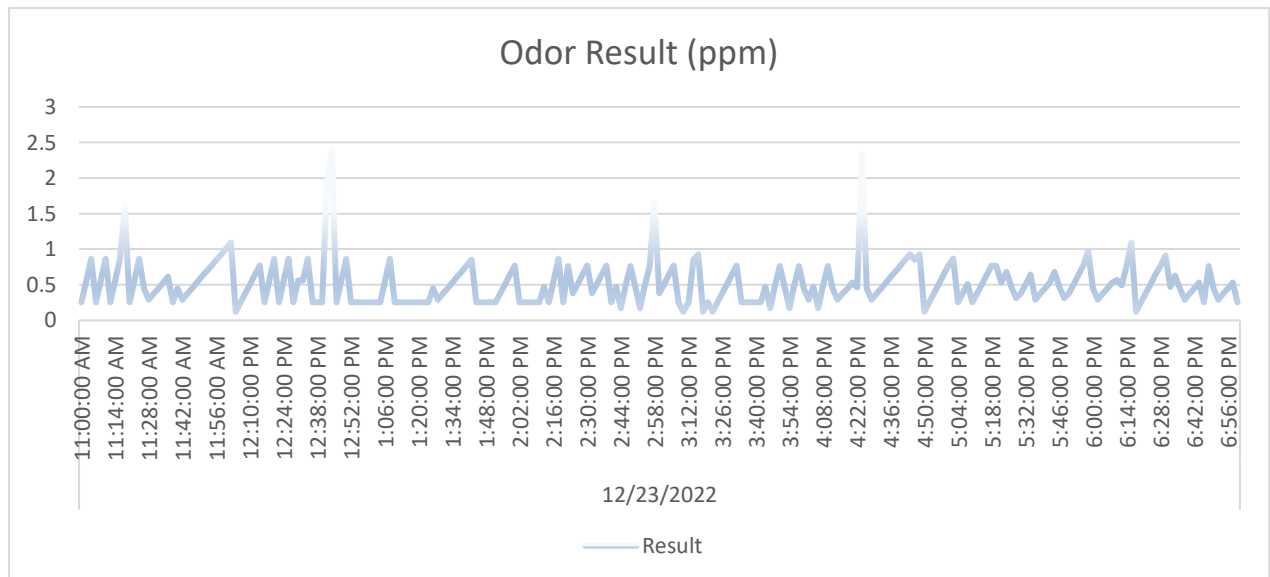


Figure 5-7 Odor intensity graph

5.2.5. Light

Activities of the workers in the jewelry factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in the proposed project is presented. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in proposed project is provided in Table 5-5.

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 jewelry factory, like stone setting, polishing, 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.

However, according to the result of light measurement at operation area is in good condition and at the acceptable level of standard.

Table 5-5 Recommended illumination and limiting glare index based on IES Code, 1968

Visual test	Illumination (lux)	Glare index
Casual seeing	100	28
Rough task with large detail	200	25-28
Ordinary task medium detail	400	25
Fairly severe task, small detail (e.g. drawing office, sewing)	600	19-22

Severe, prolonged task, very small detail (e.g. fine assembly, hand tailoring)	900	16-22
Very severe, prolonged task, very small detail (e.g. gem cutting, hosiery mending, gauging very small parts)	1,300 -2,000	13-16

Source: Koenigsberger, et al. 1975



Figure 5-8 Light Quantity Measurement Photo

Table 5-6 Result of Light Measurement in B.C.C JEWELRY MFG COMPANY LIMITED

No.	Location	Measure value (Lux)	Standard*
1	Operation Area	328	300
2	Polishing	1054	1000
3	Stone Setting	1356	1000
4	Drying Room	581	600
5	QC	724	600
6	Packing	637	600

* Lighting standards and codes usually provide recommended illuminance ratios between the task area and its surroundings (EN 12464-1 2002) (CIBSE 1997) (IESNA 2000, 676708).

5.2.6. Wastewater Testing

The baseline data on wastewater quality were collected on 23 December 2022 with respect to NEQG Guidelines for Wastewater Standard and Laboratory analysis results can be seen in (Table 5-8). Which 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. Wastewater quality is one of the key factors affecting the environment and health. Analyzed results of groundwater result compare with dispose water guideline,

The collected samples (wastewater from chemical treatment plant at the factory) were tested at Alarm Ecological Laboratory.

Table 5-7 Coordinated Point of Final Treated Water Collection Point

Water Quality Parameter	GPS Value	Location
pH, Turbidity, Total Solids, Chloride, Hardness, BOD, COD, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese, Zinc	16°53'27.92"N, 96°13'32.34"E	Chemical Treatment Plant (Final Treated Water)

5.2.6.1. Water and wastewater test result

Table 5-8 Final Treated Water Quality Laboratory Results

No	Parameter	Results	Units	National Environmental Quality Emission Guideline
1	pH	7.3	S.U	6.0-9.0
2	Turbidity	6	FAU	-
3	Total Solids	209	mg/L	-
4	Chloride	7.3	mg/L	-
5	Hardness	42	mg/L	-
6	BOD	3	mg/L	≤ 50
7	COD	< 30	mg/L	≤ 250
8	Free Cyanide	< 0.01	mg/L	≤ 0.1
9	Arsenic	0.005	mg/L	≤ 0.1
10	Copper	4.4	mg/L	≤ 0.5
11	Iron	0.3	mg/L	≤ 3.5
12	Lead	ND	mg/L	≤ 0.1
13	Manganese	0.4	mg/L	≤ 2
14	Zin	< 0.02	mg/L	≤ 2

5.2.7. Drinking water Testing

The baseline data on drinking water quality were collected on 23 December 2022 with respect to WHO Guidelines for drinking water Standard and Laboratory analysis results can be seen in (Table 5-10). Which affected by the project, was studied with the aim of understanding, preventing and minimizing water pollutions in the drinking water sources for the proposed project so as to ensure human health. Drinking water quality is one of the key factors for the health of employees in the proposed project. Analyzed results of drinkingwater result compare with WHO drinking water guideline,

The collected samples (water from RO Host System at the factory) were tested at Alarm Ecological Laboratory.

Table 5-9 Coordinated Point of Drinking water Collection Point

Water Quality Parameter	GPS Value	Location
pH, Turbidity, Total Solids, Chloride, Hardness, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese, Zinc	16°53'28.22"N, 96°13'32.96"E	RO Host System (Purified water)

5.2.7.1. Water and wastewater test result

Table 5-10 Drinking water Quality Laboratory Results

No	Parameter	Results	Units	Drinking water Standard
1	pH	6.4	S.U	6.5-8.5
2	Turbidity	< 5	FAU	≤ 5
3	Total Solids	2	mg/L	-
4	Chloride	4	mg/L	≤ 250
5	Hardness	3	mg/L	≤ 500
6	Free Cyanide	< 0.01	mg/L	-
7	Arsenic	0.005	mg/L	≤ 0.05
8	Copper	0.2	mg/L	≤ 2
9	Iron	0.6	mg/L	≤ 1
10	Lead	ND	mg/L	≤ 0.01
11	Manganese	0.5	mg/L	≤ 0.4
12	Zin	< 0.02	mg/L	≤ 3

5.3. PHYSICAL COMPONENT

5.3.1. Topography

Yangon area is the largest; most populated and urbanized area in Myanmar. There are thirty-three townships in Yangon city where located at the convergence on the Yangon and Bago River region about 34 km away from the Gulf of Martaban. The proposed project area is situated at East Dagon Industrial Zone, East Dagon Myothit Township, and its topographic condition is flat. The proposed project site is primarily agricultural land, but now is initiated into the industrial zone area.

5.3.2. Geology

In Yangon area mainly composed of Pegu Group, Irrawaddy Formation and Alluvium. Alluvial deposits (Pliocene to Recent), the non-marine fluvial sediments of Irrawaddy formation (Pliocene), and hard, massive sandstone of Pegu series (early-late Miocene) underlie the Yangon area. Alluvial deposits are composed of gravel, clay, silts, sands and laterite which lie upon the eroded surface of the Irrawaddy formation at 3-4.6 m above mean sea level (MSL). The rock type in Yangon is mainly soft rocks, which consist of sandstone, shale, limestones and conglomerate. Geological map of Yangon Regional area is shown in Figure 5-9.

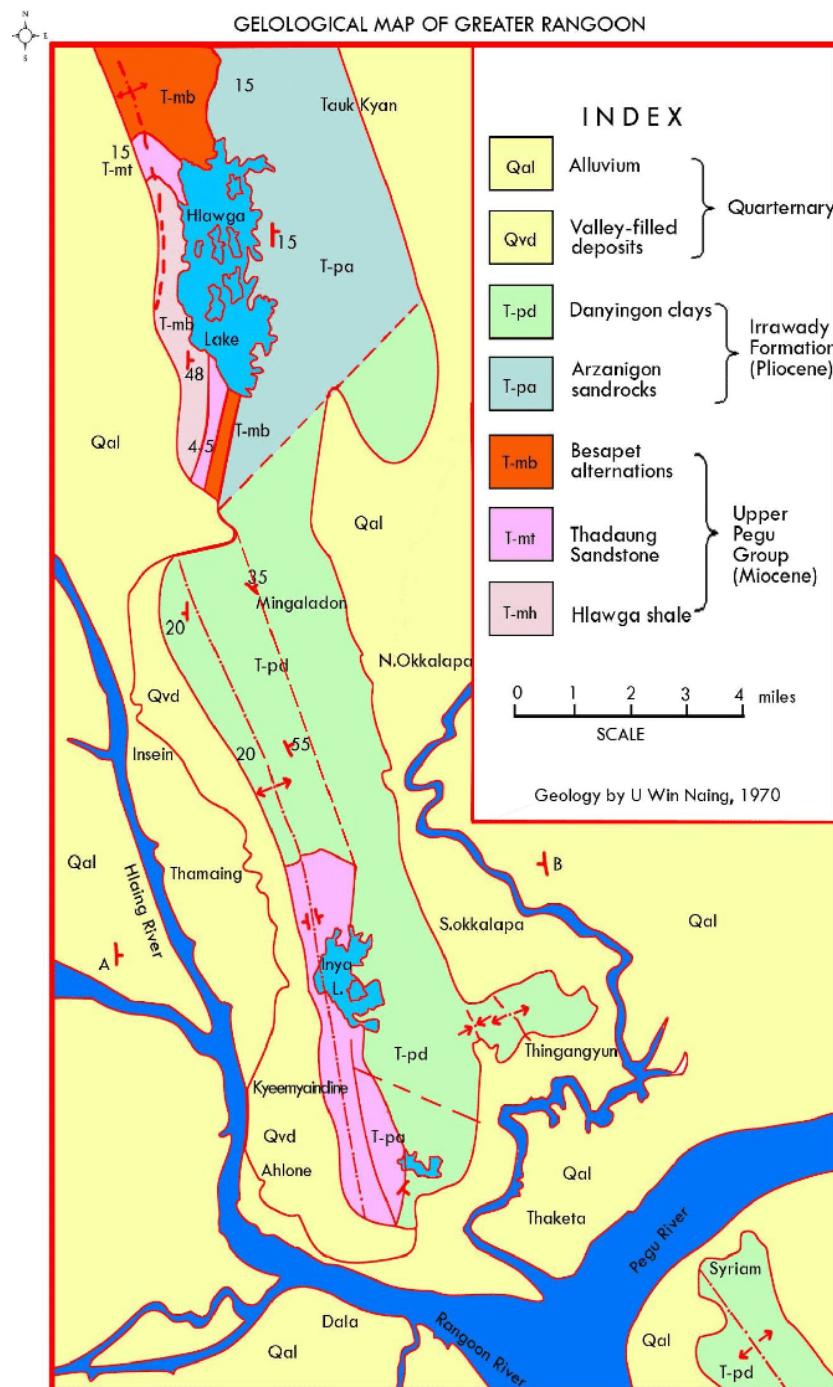


Figure 5-9 Geological Map of Yangon Region

5.3.3. Tectonics

Yangon is situated in the southern part of the Central Lowland which is one of the three major tectonic provinces of Myanmar. The Taungnio Range of the Gyophyu catchments area of Taikkyi District, north of Yangon, through the Thanlyin Ridge, south of Yangon forming a series of isolated hills probably resulted from the progressive deformation of the Upper Miocene rocks as the eastern

continuation of the subduction or stretching and compression along the southern part of the Central Basin and regional uplifting of the Pegu Yoma (Aung Lwin 2012).

5.3.4. Soil

The underlying soil type at the Project Site and its surroundings is characterized as the Meadow and Meadow Alluvial Soil. Meadow Soil is soil which occurs near the river plains exposed to occasional tidal floods, is non-carbonate and usually contains a large amount of salt. Both materials mainly comprise silty clay loam and neutral soil rich in plant nutrient. The upper layers (approximately 0 to 7 m) of the soil at the Project Site comprise largely of cohesive layers with traces of sand and gravel, followed by sand layers with low silt content and trace gravel from 7 to 35 m. The lower layers comprise denser silt layer with traces of sand and gravel from approximately 57 to 70 m. Standard Penetration Test (SPT) results obtained from testing at the Project Site indicate that the soil strength generally increases with depth. The STP results showed that the current soil quality can accommodate the construction of the Project. (Source: Land use of Bureau of Yangon)

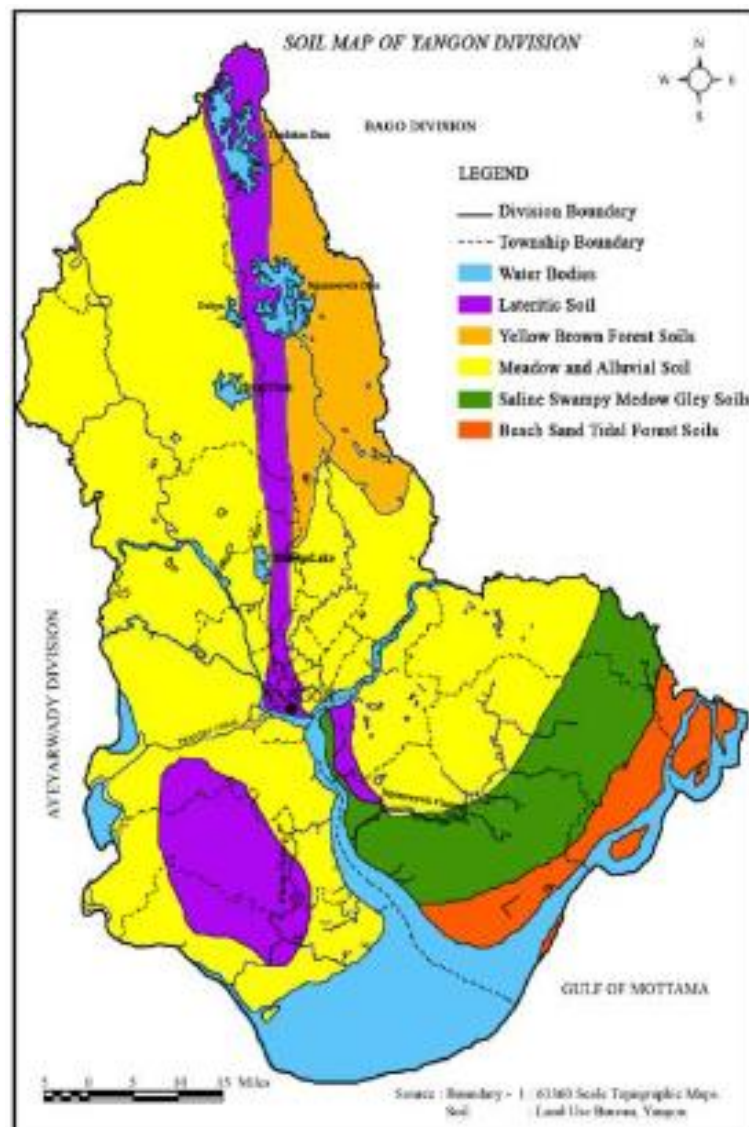


Figure 5-10 Soil map of Yangon

5.3.5. Hydrogeology

Yangon is rich in groundwater resources conserved by unconsolidated Tertiary-Quaternary deposits. In Yangon, groundwater is mostly extracted from Valley filled deposits and Ayeyarwady sandstones.

Groundwater: Groundwater availability is generally based on the distribution of permeable and relatively impermeable rocks. The nature of openings in the rocks determines permeability of rocks. Based on local geological considerations, potential groundwater source of Yangon can be roughly divided into two sub regions, namely the low potential area and high potential area. Low potential areas are areas with those rock units of Hlawga Shale, Thadugan Sandstones and Basepet Alternation of upper Pegu Group (Miocene epoch) and Danyingon Clays of Irrawaddy rocks. These rocks and formations are a dense, massive and consolidated nature and have impervious characteristic. High potential areas are underlain by Pliocene Series and recent Formations. High potential area covers approximately 85 percent of the Yangon city including Pabedan. Stand pipe piezometers were installed at a depth of up to 30 m from the existing ground level while a pumping well was installed upon completion of the soil investigation works. Based on the results recorded up to the 8th of December 2012, stabilized groundwater level was observed to range between 0.49 m MSL to -1.81 m MSL.

Water Supply: The Yangon City Development Committee (YCDC) has an overall responsibility for the management and distribution of water for Yangon City. Presently, YCDC's water supply is obtained from two main sources: (1) reservoir (Hlawga, Gyobu, Pugyi and Ngameoyeik reservoirs) and, (2) groundwater from YCDC's tube wells. Water from these sources is utilized to varying degrees. Areas not supplied with water from the YCDC rely on shallow surface wells and private boreholes. Water supply for the Project Site will be obtained from onsite borewells for both construction and operations due to the poor reliability of municipal supply. Permitting is part of the Planning Consent Application currently underway. The boreholes will be provided and operated by the Developer.

Hydrology: The Project Site lies along the catchment of the Hlaing River which flows North to South. The Yangon River (also known as the Rangoon River or Hlaing River) is formed by the confluence of the Pegu and Myitmaka rivers and flows into the Gulf of Martaban which is part of the larger Andaman Sea. The river flows along a 40 km stretch flowing from southern Myanmar as an outlet of the Ayeyarwady River into the Ayeyarwady delta. A small portion of the Bago River (the estuary) lies within the Yangon Division. The Pazundaung Creek and Bago River joins the Yangon River and from there, flow towards the Southwestern direction into Andaman Sea.

5.3.6. Climate and Meteorology

5.3.6.1. Average Weather in Yangon

In Yangon, the wet season is oppressive and overcast, the dry season is muggy and partly cloudy, and it is hot year round. Over the course of the year, the temperature typically varies from 67 °F to 97 °F and is rarely below 62 °F or above 101 °F.

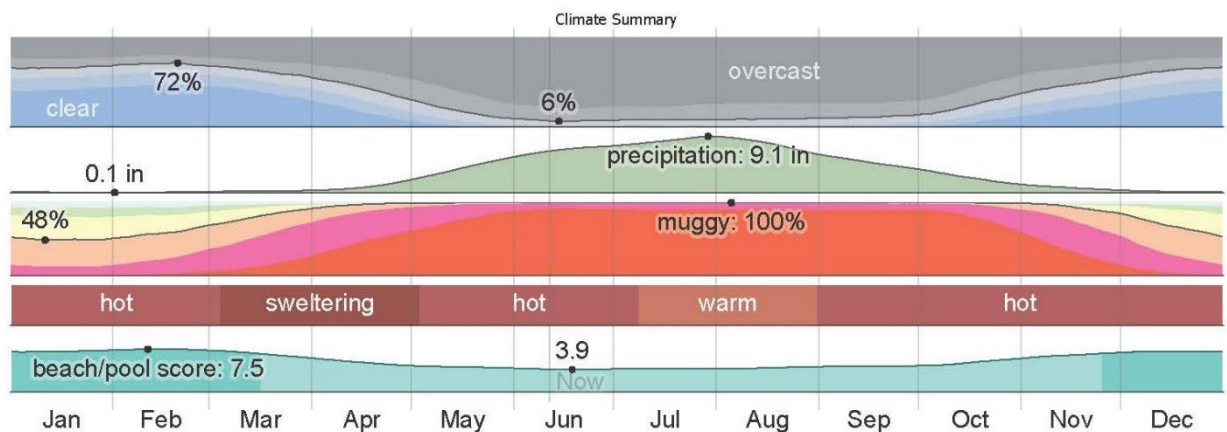


Figure 5-11 Climate Summary of Yangon Region

5.3.6.2. Temperature

The hot season lasts for 2.0 months, from March 2 to May 3, with an average daily high temperature above 95 °F. The hottest day of the year is April 11, with an average high of 97 °F and low of 78 °F.

The cool season lasts for 3.9 months, from June 2 to September 29, with an average daily high temperature below 87 °F. The coldest day of the year is January 10, with an average low of 67 °F and high of 88 °F.

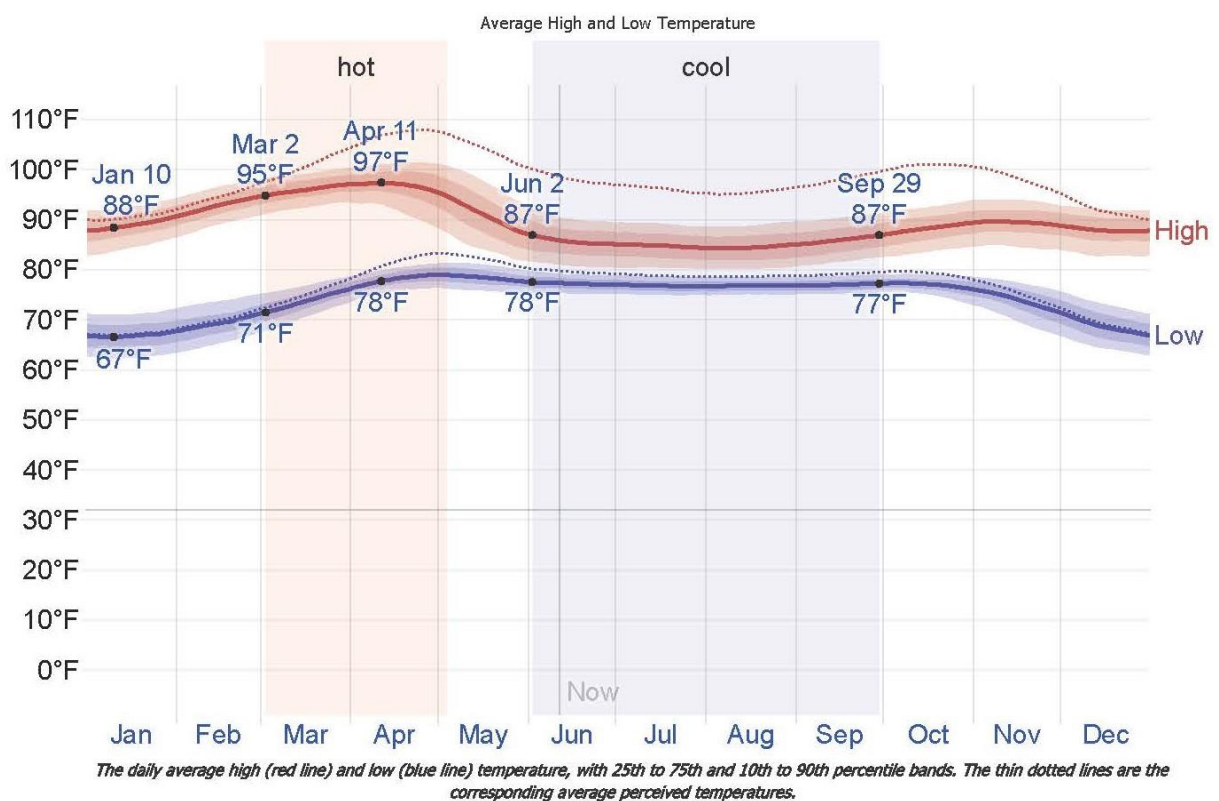


Figure 5-12 Average Temperature of Yangon Region

5.3.6.3. Clouds

In Yangon, the average percentage of the sky covered by clouds experiences extreme seasonal variation over the course of the year. In clearer part of the year in Yangon begins around November 2 and lasts for 5.6 months, ending around April 22. On February 20, the clearest day of the year, the sky is clear, mostly clear, or partly cloudy 72% of the time, and overcast or mostly cloudy 28% of the time.

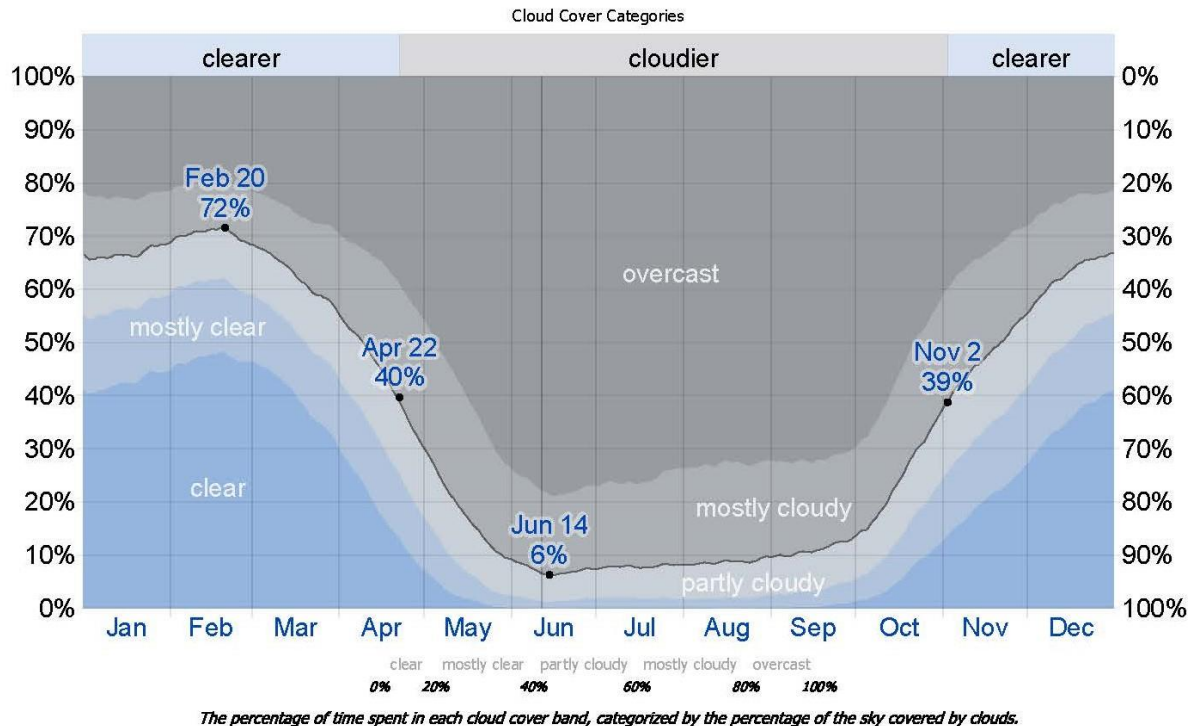


Figure 5-13 Cloud Cover Categories

5.3.6.4. Rainfall

To show variation within the months and not just the monthly totals, we show the rainfall accumulated over a sliding 31-day period centered around each day of the year. Yangon experiences extreme seasonal variation in monthly rainfall. The rainy period of the year lasts for 7.7 months, from April 5 to November 28, with a sliding 31-days rainfall of at least 0.5 inches. The most rain falls during the 31 days centered around July 30, with an average total accumulation of 9.1 inches. The rainless period of the year lasts for 4.3 months, from November 28 to April 5. The least rain falls around February 1, with an average total accumulation of 0.1 inches.

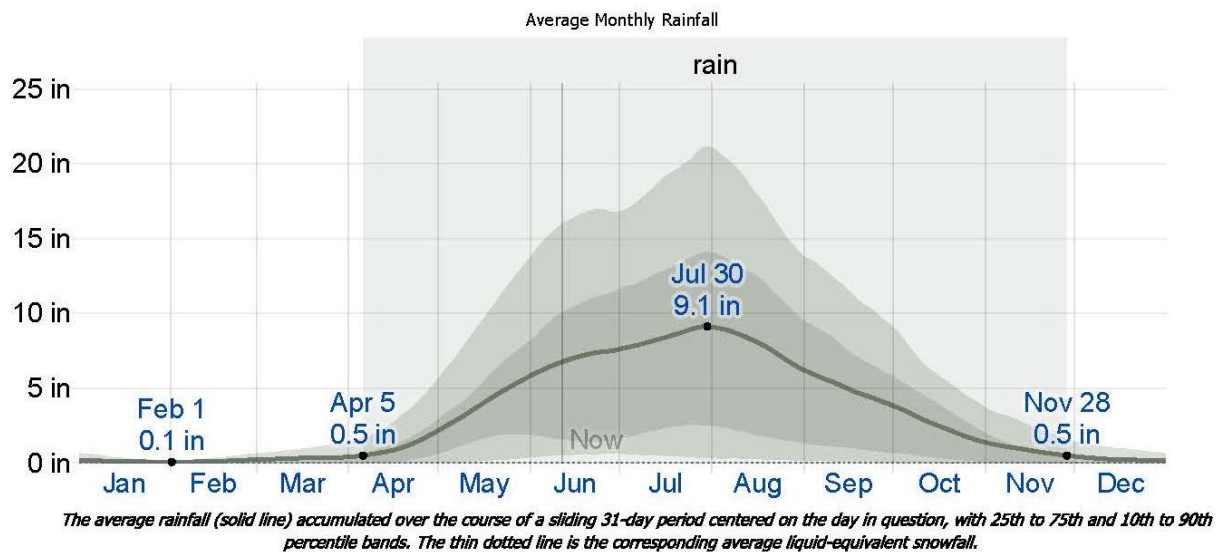


Figure 5-14 Average Monthly Rainfall at Yangon Region

5.3.6.5. Humidity

We base the humidity comfort level on the dew point, as it determines whether perspiration will evaporate from the skin, thereby cooling the body. Lower dew points feel drier and higher dew points feel more humid. Unlike temperature, which typically varies significantly between night and day, dew point tends to change more slowly, so while the temperature may drop at night, a muggy day is typically followed by a muggy night.

Yangon experiences extreme seasonal variation in the perceived humidity. The muggier period of the year lasts for 10 months, from February 22 to December 23, during which time the comfort level is muggy, oppressive, or miserable at least 61% of the time. The muggiest day of the year is August 5, with muggy conditions 100% of the time. The least muggy day of the year is January 11, with muggy conditions 48% of the time. In May 11, 2020, the weather condition of proposed project is 35.3 °C average temperature and 38.9 % average humidity.

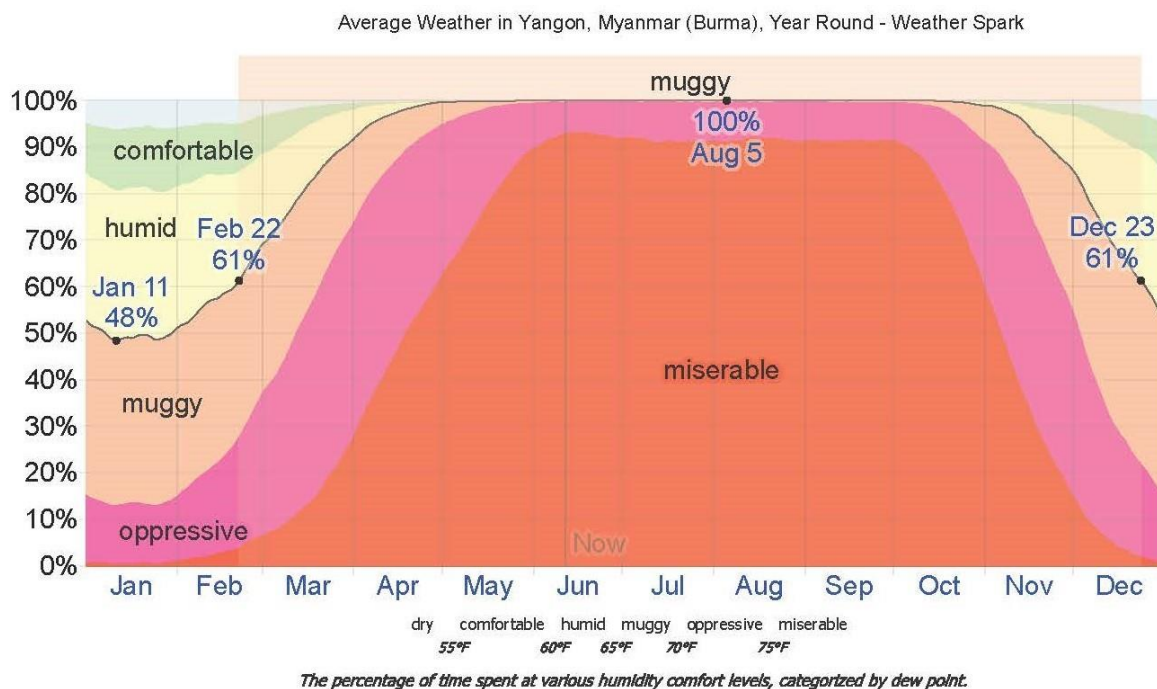


Figure 5-15 Humidity of Yangon

5.3.6.6. Wind

This section discusses the wide-area hourly average wind vector (speed and direction) at 10 meters above the ground. The wind experienced at any given location is highly depended on local topography and other factors, and instantaneous wind speed and direction vary more widely than hourly averages. The average hourly wind speed in Yangon experiences significant seasonal variation over the course of the year. The windier part of the year lasts for 4.1 months, from May 1 to September 4, with average wind speeds of more than 8.2 miles per hour. The windiest day of the year is June 24, with an average hourly wind speed of 10.6 miles per hour. The calmer time of year lasts for 7.9 months, from September 4 to May 1. The calmest day of the year is January 9, with an average hourly wind speed of 5.8 miles per hour.

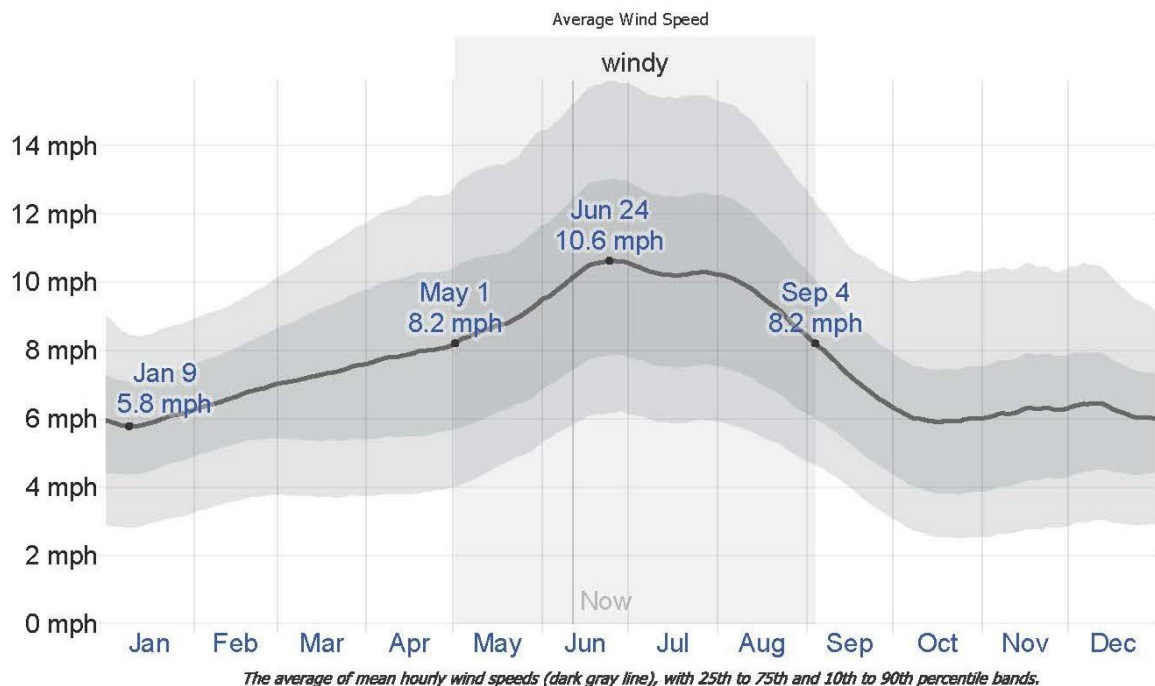


Figure 5-16 Average Wind Speed in Yangon

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	24.5 °C (76) °F	26.5 °C (79.7) °F	28.6 °C (83.4) °F	30.5 °C (86.9) °F	28.4 °C (83.1) °F	26.5 °C (79.8) °F	26.1 °C (79) °F	26 °C (78.7) °F	26.3 °C (79.3) °F	26.9 °C (80.4) °F	26.4 °C (79.4) °F	24.7 °C (76.5) °F
Min. Temperature °C (°F)	18.5 °C (65.4) °F	19.8 °C (67.6) °F	22.1 °C (71.8) °F	25.3 °C (77.5) °F	25.6 °C (78.1) °F	24.9 °C (76.8) °F	24.5 °C (76.1) °F	24.4 °C (75.9) °F	24.4 °C (75.8) °F	24.2 °C (75.6) °F	22.4 °C (72.2) °F	19.6 °C (67.2) °F
Max. Temperature °C (°F)	30.6 °C (87.2) °F	33.4 °C (92.2) °F	35.5 °C (95.8) °F	36.6 °C (97.9) °F	32.4 °C (90.3) °F	29.6 °C (85.2) °F	29.1 °C (84.4) °F	28.9 °C (84.1) °F	29.5 °C (85) °F	30.4 °C (86.7) °F	30.8 °C (87.5) °F	30.2 °C (86.3) °F
Precipitation / Rainfall mm (in)	4 (0)	2 (0)	12 (0)	42 (1)	284 (11)	456 (17)	491 (19)	494 (19)	368 (14)	180 (7)	37 (1)	5 (0)
Humidity(%)	62%	54%	56%	59%	78%	89%	90%	90%	89%	85%	76%	67%
Rainy days (d)	1	0	1	4	17	21	22	22	20	15	4	1
avg. Sun hours (hours)	9.4	10.1	10.3	10.1	8.0	7.4	7.4	7.4	7.2	8.0	9.1	9.4

Figure 5-17 Average Climate of Yangon Region

5.4. BIOLOGICAL COMPONENT

The proposed project site is not located in or near a sensitive ecosystem as the proposed project area is situated in the East Dagon industrial zone. The Project Site is a built-environment and the species of flora surveyed at the site are native species uncommon to the Yangon area. There were no protected species or species of conservation value identified.

5.5. SOCIO-ECONOMIC COMPONENT

5.5.1. Population

B.C.C JEWELRY MFG. COMPANY LIMITED is located across Dagonmyothit (East) Township in Yangon Region. In 2019, the population of Mingaladon Township is about 263,798 people.

Table 5-11 Population and number of conventional households by sex by ward and village tract; Dagon Myothit (East) Township

Sr	Ward/Village Tract	No. of Conventional households	Population		
			Total	Males	Females
	Total	33,913	165,628	80,861	84,767
	Ward	31,895	156,244	76,015	80,229
1	No (1)W	1,909	9,352	4,678	4,647
2	No (2)W	712	3,374	1,620	1,754
3	No (3)W	832	3,910	1,839	2,071
4	No (4)W	770	3,721	1,752	1,969
5	No (5)W	1,670	8,168	3,826	4,342
6	No (6)W	1,663	7,942	3,941	4,001
7	No (7)W	2,582	12,810	6,141	6,669
8	No (8)W	2,572	10,920	5,138	5,782
9	No (9)W	754	3,659	1,639	2,020
10	No (10)W	224	1,287	623	664
11	No (11)W	1,039	5,229	2,538	2,761
12	No (12)W	1,781	9,379	4,633	4,746
13	No (13)W	1,677	8,227	4,086	4,141
14	No (14)W	667	3,222	1,706	1,516
15	No (15)W	834	4,216	2,096	2,120
16	No (52)W	745	3,435	1,696	1,739
17	No (108)W	895	4,272	2,152	2,120
18	No (110)W	317	1,942	623	1,319
19	No (118)W	898	6,158	2,873	3,285
20	No (124)W	570	2,371	1,161	1,210
21	No (125)W	1,877	8,544	4,310	4,234
22	Sit Pin (South) (W)	532	2,267	1,154	1,113
23	TaungTaLoke(W)	341	2,699	1,502	1,197
24	Ywar Thar Gyi (Ah Shey Pain) (W)	1,467	6,726	3,345	3,381
25	Thone Khwa (Ah Shey Paing) (W)	478	2,248	1,136	1,112

26	No (113) (W)	2,583	11,549	5,623	5,926
27	No (155) (W)	704	3,415	1,662	1,753
28	No (156) (W)	1,117	5,132	2,522	2,610
	Village Tract	2,018	9,384	4,846	4,538
1	Shan Te Gyi (East) (VT)	422	1,990	1,010	980
2	Ma Lit (East) (VT)	1,149	5,193	2,716	2,477
3	Lay Daunt kan (East) (VT)	447	2,201	1,120	1,081

Source: Department of Population, Dagon Myothit (East) Township Report (themimu.info)

5.5.2. Religion

At the Union level, the composition of population by religion is 87% Buddhist, 6.2% Christian, 4.3% Islam, 0.5% Hindu, 0.8% Animist, 0.2% Other religion and 0.1% No religion.

At Yangon Region, it is 91% Buddhist, 3.2% Christian, 4.7% Islam, 1.0% Hindu, 0.1% Other religion less than 0.1% each for Animist and those with No religion.^[1]

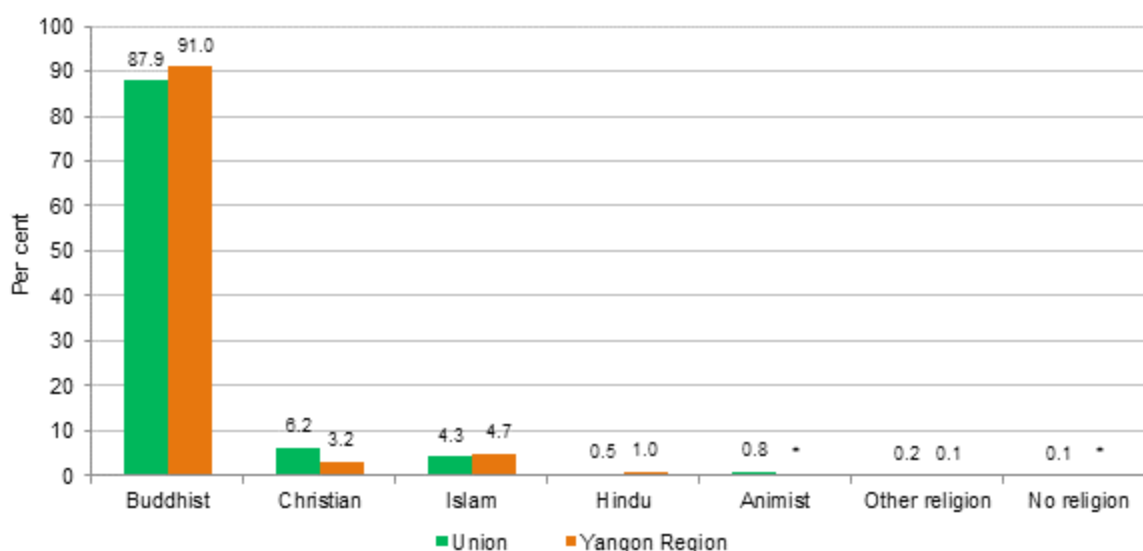


Figure 5-18 Percentage of population by religion, Union and Yangon Region

Source: Department of Population, Dagon Myothit (East) Township Report (themimu.info)

5.5.3. Local Economy

Among regional towns, Dagon Myothit (East) 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 employment of factory. Services and facilities available include:

- Agriculture, forestry and fishing
- Mining and quarrying
- Manufacturing

- Electricity, gas, steam and air conditioning supply
- Water supply; sewerage, waste management and remediation activities
- Construction
- Wholesale and retail trade; repair of motor vehicles and motorcycles
- Transportation and storage
- Accommodation and food service activities
- Information and communication
- Financial and insurance activities
- Real estate activities
- Professional, scientific and technical activities
- Administrative and support service activities
- Public administration including civil servants
- Education
- Human health and social work activities
- Arts, entertainment and recreation

5.5.4. Public Infrastructure and Access

5.5.4.1. Transportation

In Dagon Myothit (East) Township, 66.5% of the household have bicycle as a means of transport and it is the highest proportion, followed by 10.5% of household having motorcycle/moped. Analysis by urban/rural residence, the majority of the households mainly use bicycle as a means of transport.^[1]

Table 5-12 Conventaional households by availability of transportation items by urban/rural

Township	Conventional households	Car/Truck/ van	Motorcycle/ mopped	Bicycle	4- wheel tractor	Canoe/ Boat	Motor boat	Cart (bullock)
Dagon Myothit (East) Township	33,913	1,762	3,552	22,555	76	95	61	495
Urban	31,895	1,714	3,212	21,747	58	23	7	233
Rural	2,018	48	340	808	18	72	54	262

Source: Department of Population, Dagon Myothit (Eas) Township Report (themimu.info)

5.5.4.2. Electricity

The electricity demand of Dagon Myothit (East) Township is higher and higher due to the normally increased in population and infrastructure.

5.5.4.3. Education

Location of major schools were situated i.e. basic education primary school (B.E.P.S.), basic education middle school (B.E.M.S), basic education high school (B.E.H.S) and Dagon University, in the Dagon Myothit (East) Township.

Table 5-13 List of major school in Dagon Myothit (East) Township

No.	Name of School	Location
1	အ.ထ.က (၁)	(၁၃) ရပ်ကွက်
2	အ.ထ.က (၂)	(၃) ရပ်ကွက်
3	အ.ထ.က (၃)	(၁၂) ရပ်ကွက်
4	အ.ထ.က (၄)	(၉) ရပ်ကွက်
5	အ.ထ.က (၅)	(၁၃၃) ရပ်ကွက်
6	အ.ထ.က (ခွဲ) လ (၄)	ရွာသာကြီး
7	အ.လ.က (၁)	(၁၂) ရပ်ကွက်
8	အ.လ.က (၂)	(၁၃) ရပ်ကွက်
9	အ.လ.က (၅)	ရှမ်းတဲကြီးကျေးရွာ
10	အ.လ.က (ခွဲ) မ (၇)	(၇) ရပ်ကွက်

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

5.5.4.4. Health Status

The diseases of high prevalence reported in 2019 are Malaria, followed by Diarrhea, TB and Gastrointestinal Disorders. With reference to the Township Health Profile 2019 of Dagon Myothit (East) Township, no accidental work injuries reported to the township hospital in 2019.

Table 5-14 Common Diseases in the Dagon Myothit (East) Township

Diseases	Mingaladon Township	
	Morbidity	Mortality
Malaria	-	-
Diarrhea	232	-
TB (Sputum+)	-	-
Gastrointestinal Disorders	54	-
Hepatitis	-	-
HIV/AIDS	210	-

Table 5-15 Lists of hospital in the Dagon Myothit (East) Township

Hospital Name	Beds/Services	Responsible
Mental Health Hospital	25 above	Government
General Hospital	25	Government
Win Clinic	-	Private
Mya Kay Thi Clinic	-	Private
Zayar Gyi Clinic	-	Private

Yadanar Clinci	-	Private
Mon Mon Yi Clinic	-	Private
Tha Pyay Clinic	-	Private
Kaung Clinic	-	Private
Doctor Chit Clinic	-	Private
Kaung Sithu Clinic	-	Private
Say Tanar Shin Clinic	-	Private
Khayay Clinic	-	Private
Kumudra Clinic	-	Private
Thiri Mantine (1) Clinic	-	Private
Ah Shay Dagon Clinic	-	Private
Mi BaGone Clinic	-	Private
Ye Yadanar Clinic	-	Private
Aung ZiWaKa Clinic	-	Private
Min Thazin Clinic	-	Private
Mi Ba Yate Clinic	-	Private
May Clinic	-	Private
Thawdar Clinic	-	Private
Mya Nandar Clinci	-	Private
Zayar Gyi (Dental)	-	Private

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

5.6. CULTURAL AND VISUAL COMPONENTS

Dagon Myothit (East) 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 6 IMPACT ASSESSMENT AND MITIGATION MEASURE

6.1. METHODOLOGY FOR THE ASSESSMENTS

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 6-1:

Table 6-1 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

6.1.1. 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 Livestock Production Zone, DagonMyothit (East) Township, Yangon Region, there may have business opportunities to local people. Local people can have a market by selling foods, snacks and drinks nearby the factory.

6.2. 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.

6.3. POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION AND DECOMMISSIONING PHASE

Construction phase: The project factory is already constructed during environmental assessments study and site visit. Therefore, the proposed project is located in industrial zone and already finished the construction, the potential impact on environment is not assessed and affected must be caused the construction period.

Decommissioning phase: The proposed duration of the investment shall be 30 years. The term of the Lease shall be initial 30 years commencing from the date of signing of the Lease Agreement between Local owner and B.C.C JEWELRY MFG LIMITED for proposed project site for 4.59 acres. The project of land and building will be restitution to land owner after close the operation. Therefore, the assessment study cannot be need for environmental impact assessment during decommission phase.

These two phases of operation shall be represented by land owner. If the owner will be demolished their factory, they will need mitigation and monitoring plan for environmental impact. Therefore, Myanwei's environmental assessment team presented for monitoring plan during decommissioning phase.

6.3.1. Negative Impact

The following Figure 6-1 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.

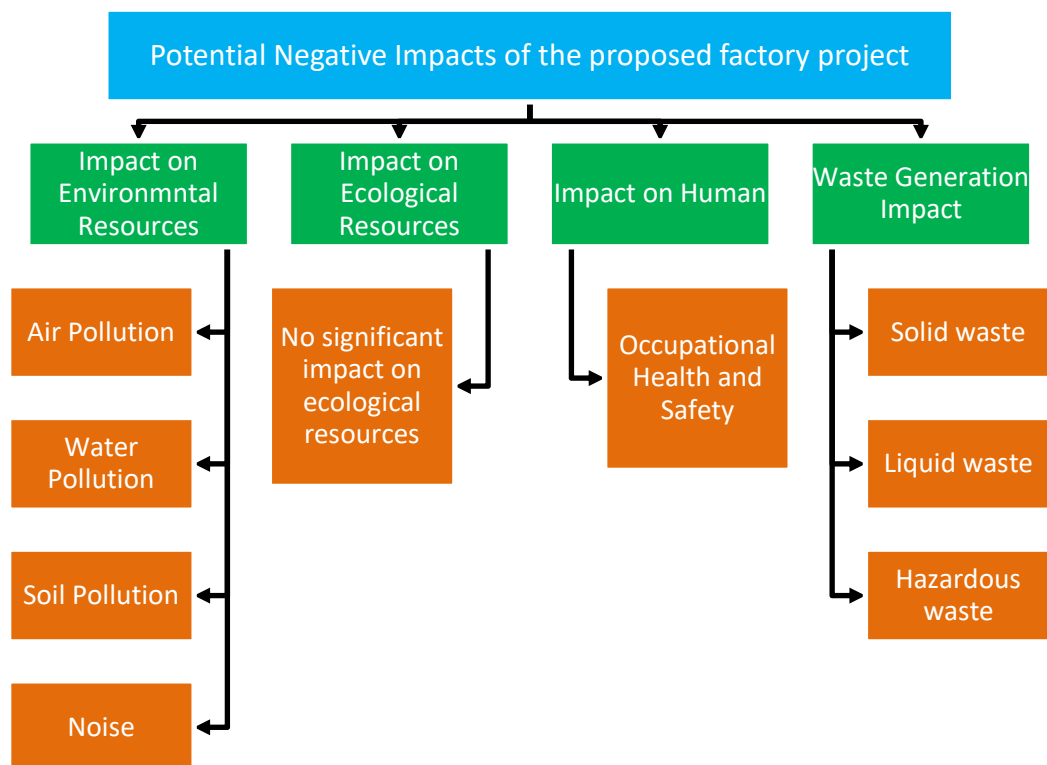


Figure 6-1 Potential negative impact affect from proposed project

6.4. POTENTIAL ENVIRONMENTAL IMPACTS DURING OPERATION PHASE

Significant impacts were determined through the following issues:

- i. Views of interested and affected local person;
- ii. Legislation
- iii. Professional adjustment of the project team includes of consultant, associate consultant, international environmental impact assessment methodology

Impacts on the environment from various activities of the project can be categorized as follows;

- I. Impact on Environmental Resource**
 - Impact on Air Quality
 - Impact of Noise Level
 - Impact on Water Quality
 - Impact on Soil Quality
- II. Impact on Ecological Resources**
 - Aquatic Ecosystem
- III. Impact on Human Environment**
 - Health and Safety
 - Socio-economics
- IV. Impact of Waste Disposal**
 - Solid waste disposal
 - Liquid waste disposal

6.5. PROJECT ACTIVITIES AND ITS SIGNIFICANT IMPACTS

The project activities, their impacts and significance of impact are provided in following Table.

Table 6-2 Evaluation and Perdition of Significant Impacts and mitigation measure for Operation Phase

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Impact on Environmental Resource									
Air	<ul style="list-style-type: none">Dust and GHGs emission from vehicles used for transporting raw materials and final productsEmission from emergency diesel generator and vehicle movement	3	4	2	4	36	Moderate	<ul style="list-style-type: none">Air pollution in atmosphere.Inhaling them can increase the chance you'll have health problemsPeople 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.Ensuring vehicles, compressor and generator are well maintained.Smoke emission should be fitted with the bag filter.The factory had installed air purification system.
Soil	Engine oil leaks, spills at diesel storage and during fuel refueling.	1	4	1	1	6	Insignificant	<ul style="list-style-type: none">The factory compound area was paved with concrete and hence, contamination due to the oil spillage at this area is insignificant.	<ul style="list-style-type: none">No Mitigation Measure

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Noise and Vibration	Generating noise from the production machinery	2	4	2	2	16	Low	<ul style="list-style-type: none"> The factory not operate heavy machinery There is insignificant impact on surrounding environment. 	<ul style="list-style-type: none"> No Mitigation Measure
Impact on Ecological Resources									
Flora and fauna on terrestrial and aquatic life	Operation of the jewelry factory	1	4	1	1	6	Insignificant	<ul style="list-style-type: none"> Not Significant Impact on Ecological Resources 	<ul style="list-style-type: none"> No Mitigation Measure
Impact on Human									
Fire	<ul style="list-style-type: none"> Poor electrical installations Waste disposed area, raw materials and chemical storage 	3	5	2	4	40	Moderate	<ul style="list-style-type: none"> Serious damage to property and even injury and death 	<ul style="list-style-type: none"> To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening has been built.

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									<ul style="list-style-type: none"> 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.
Occupational Safety	<ul style="list-style-type: none"> Accidental cases cause by operating machines. Unloading, pressing and packaging activities. Accidental cases of thermic fluid heater 	3	4	1	4	32	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"> 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. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									assigned to do regular inspections and take preventive measures.
Health	<ul style="list-style-type: none"> Influx of people Noise from the generating of the emergency generators 	2	4	1	2	14	Very Low	<ul style="list-style-type: none"> Change in demographic structure, new diseases from immigrant workers To cause a range of health problems ranging from stress, poor concentration, productivity losses in the workplace, and communication difficulties and fatigue from lack of sleep, to more serious issues 	<ul style="list-style-type: none"> Manage the drainage systems of the factory to prevent health risk of the workers. The maximum allowable noise level for workers is 90dB(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.
Waste Generation Impact									
Solid Waste	<ul style="list-style-type: none"> Waste from packaging materials Waste from kitchen, dormitory and office. 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> Surrounding environmental pollution and soil contamination 	<ul style="list-style-type: none"> Provides garbage bins at the whole factory. All of the solid wastes will be collected separately in garbage based on their types and stored in

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									relevant separated waste storage area <ul style="list-style-type: none"> Final wastes should be disposed by using YCDC's service.
Liquid Waste	<ul style="list-style-type: none"> Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory. 	2	4	2	2	16	Low	<ul style="list-style-type: none"> Contamination of soil, surface water, 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.
	<ul style="list-style-type: none"> Treated water from chemical treatment plant 	2	4	1	2	14	Very Low	<ul style="list-style-type: none"> Contamination of soil, surface water, ground water 	<ul style="list-style-type: none"> Regular inspection on treatment plant, Regularly check the final output treated water.
Hazardous Waste	<ul style="list-style-type: none"> Used oil and lubricant discharged from the maintenance of vehicles and machines. 	2	4	1	2	14	Very Low	<ul style="list-style-type: none"> Reduce the risk of contamination from chemical used in electroplating process, chemical residuals, fuels, oils and hazardous wastes Response effectively to incident and accident 	<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

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									carriers and disposed in a licensed faculty (eg., YCDC)

6.6. IMPACTS, MITIGATION MEASURE DURING OPERATION

Impact assessment on environmental, social and economic aspect is based on analysis of the magnitudes of potential impact and significant potential impacts on the project activities. The assessment on both of positive and negative impacts was carried out in all phases. Evaluation of significant of impact considered from influences of magnitude, duration, extend and probability of each impact.

6.7. IMPACT ON ENVIRONMENTAL RESOURCE

In B.C.C JEWELRY MFG COMPANY LIMITED will be used the semi-automatic process control system. In which assigned person from the operation line will operate each processing step. The major sources of air emission in the B.C.C JEWELRY MFG COMPANY LIMITED will be defined as below. The project factory is already constructed during environmental assessment study and site visit. During construction phase, dust emission was addressed as potential environmental impact and is expected to be non-significant because the construction phase is a short-term affect. So, we are not assessed potential environmental impact during construction phase.

During the operation phase, there is no emission of smoke from the process of production. Particulate matters are generated during cutting and sawing the raw materials. But that particles amount is low. Dust particles, NO₂ and SO₂ would be emitted from the activities of loading, unloading and transportation of the raw materials and final product. Various activities as cooking from kitchen, using air conditioners in office building, storage of raw materials and chemical containers, vehicles movements, and operating diesel generators would also be a factor slightly affecting to air quality.

Air impact source of emergency used of generator and vehicle movements and transportation of raw materials and chemical containers may also generate particulate matters and gas particle. However, these anticipated impacts are in manageable limits to control the air pollution with relevant mitigation measures and the proposed factory will be managed by using their HSE guidelines.

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
201 to 300	Very Unhealthy	Purple
301 to 500	Hazardous	Maroon

6.7.1.1. Computing the AQI

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	O3	PM 2.5	PM 10	CO	SO2	NO2	VOC	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)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	
Monitoring Value	1-16	8-22	11-32	0.20-0.59	0.10-0.91	8-29	0.01-0.01	0-50	
Monitoring result	12	16.92	12.83	25.64	8.02	18.90	0	13.47	Good

6.7.2. Energy Consumption and Related CO₂ (GNG) emission

Though main electricity source for the factory is the national grid line, sound-proof diesel generators will be set-up in case of electricity shortages. So, the standby generators will be used for both operation and administration appliances. The proposed project will use 35 gallons per month of diesel for vehicles such as transportation vehicle and 148 gallons per month of emergency use of 2 generators. The following table shows the amount of CO₂ emission coming from the combustion of fuels.

Burning diesel or other fuels creates exhaust gasses. Diesel generators produce carbon dioxide (CO₂), nitrogen oxide (NO_x), and particulate matter. These generators release this into the atmosphere

and substantially reduce air quality in the nearby regions. Every liter of fuel has 0.73 kg of pure carbon, 2.6 kg of carbon dioxide released per liter of diesel fuel.

Table 6-3 Category of GHGs Assessment

Category	Range
Negligible	no GHG assessment necessary
Low	< 20 kt/y CO ₂ -equivalent per year
Medium-Low	20 – 100 kt CO ₂ - equivalent per year
Medium-High	100 kt – 1 Mt CO ₂ - equivalent per year
High	>1 Mt CO ₂ -e equivalent per year

Source: EBRD GHG Assessment Methodology, 2010

Table 6-4 CO₂ Emission by the Uses of Fuel

No.	Type	Amount (Liter/year)	Equivalent CO ₂ emission (Kilotons)	Status
1	Diesel for generator	8073.859	0.0231	Negligible

According to above conversion, the emission of CO₂ relative to the fuel consumed by the proposed project will not harmfully effect to the environment. However, the proposed belts and bags will use a lot of electrical energy mainly for lighting, running of equipment, running of pumping systems for pumping water into the storage tank. Since electricity generation involves utilization of natural resources, excessive electricity consumption will strain the resource and negatively impact on their sustainability.

6.7.3. Mitigation Measures for Air Quality Impact

The significant sources of gas emission from emergency generator and transportation vehicles will be mitigated by using maintaining system in the operation process.

- Switch off vehicles when not in operation to reduce emissions by drivers
- Adequate stack must be provided as per Industrial guidelines for the proper dispersion of potential pollutants

Moreover B.C.C JEWELRY MFG COMPANY LIMITED artificial jewelry manufacturing factory has also implemented canteen facilities, kitchen, ventilation system has already installed and operated in order to remove smoke, heat, odors, and steam from cooking.

6.7.4. Impact of Noise

The Occupational Safety and Health Administration (OSHA) have recommended permissible noise exposure limit for industrial workers, which is based on 90 dB (A) for 8 hours exposure a day with 5dB trading rates. The maximum allowable noise level for workers is 90 dB (A) for 8 hours 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, need to provide if actual noise level monitoring results are more than 90 dB (A) at the work site for working time hours for 8 hours.

Table 6-5 Permissible exposure of noise limits

Total Time of Exposure Per Day in Hours	Noise Level dB(A)
8	90
6	92
4	95
3	97
5	100
1	105
½	110
¼	115

6.7.5. Impact on Water Quality

6.7.5.1. Water Consumption

Tube well is the main source of raw water will be treated by passing through into 5 sediment tanks and RO Host System. Then the obtained purified water will be provided for the whole factory use of general office facilities such as canteen, toilets and other general use. Estimated maximum water consumption for the whole factory is 793.54 gallons per day.

6.7.5.2. Water Pollution

During the operational phase, there will be **no significant impact** on soil quality due to manufacturing of jewelry because chemical treatment plant can treat the operation wastewater to around pH 7. However, there may be effect on soil if wastes from the operation period are disposed improperly.

6.7.6. Mitigation Measures for Water Consumption and Contamination

6.7.6.1. Water Consumption

In operation phase, according to the estimated water consumption for the whole factory is 793.54 gallons per day for the purpose of general office uses, domestic uses and operation uses. So, the appropriate water conservation plan should be implemented with commensurate with the magnitude and cost of water use. These programs should promote the continuous reduction in water consumption and achieve savings in the water pumping, treatment and disposal costs.

- Regularly maintain plumbing, and identify and repair leaks
- Shut off water to unused areas
- Install self-closing taps, automatic shut-off valves, spray nozzles, pressures reducing valves and water conserving fixtures (e.g low flow shower heads, faucets, toilets, urinals and spring loader)
- Operate dishwashers and laundries on full loads, and only when needed
- Install water-saving equipment in lavatories, such as low flow toilet
- Recycling water used from wastewater treatment system

Currently toilet facilities have hygienic toilets already provided and categorized by gender, marked distinctly for men and women by signs and symbols. In addition, toilet areas will also be provided with water sinks, necessary toiletries, and hand washing soaps, hand drying facilities, and waste bins.

Categories	Area of location	Sex	Quantities
Workers and staff	Production area and office	Male	12
		Female	12

- ❖ Ensure that liquid waste from the proposed site is directed to the appropriate drains
- ❖ Maintain the equipment, pipelines in good working conditions and drainage system to avoid clogging

6.7.7. Impact on Soil Quality

During the operational phase, there is **no significant impact** on soil quality due to jewelry manufacturing activities because concrete road facilities have been implemented at the whole project site area. However, there may be effect on soil if wastes from the operation period are disposed improperly.

6.8. IMPACT ON ECOLOGICAL RESOURCE

The proposed project is located in the industrial zone. Therefore, there is no wildlife, forests, protected area, coastal resource or mangrove area and rare and endangered species are found around the project area. The nearest water body is Bago River which is running south to north and later join into the Hlaing River in the east.

6.9. IMPACT ON HUMAN

6.9.1. Socio-economic Benefit

The proposed project is the long-term investment in the industrial sector. Most of the impacts of the proposed project on socio-economic environment may be positive. Implementation of proposed project may create temporary employment during construction and decommissioning phases and permanent jobs in the operation phase. Subsequently, socio-economic standards of local people will be increased and eventually it may lead to the economic growth at local and regional level.

6.9.2. Occupational Health and Safety

During the operation phase, using the machinery and chemical for production process can get injuries. Noise from the generating of the machine and generator may also affect the health of people working in the project area. Fire, chemical and explosion hazards are mainly cause from the storage of raw materials and poor management of waste disposal. The usage of fuel must carefully handle because spillage and leakage of oil and grease can cause ignition of fire. Domestic wastewater or grey water produced from canteen, kitchen and toilets will cause enormous breeding of mosquitos, which can lead to diseases like malaria and dengue fever, if not carefully managed.

6.9.3. Mitigation Measures for Occupational Health and Safety

- Consider the provision of personal protective equipment only after all measures for removing or controlling safety hazards have been provided reasonably impractical
- Ensure that sufficient personal protective equipment is provided and that they are readily available for every person who may need to use them.
- The management should ensure that all persons make full and proper use of the personal protective equipment provided
- Provide instruction and training in the proper use and care of any specific protective equipment where necessary
- Ensure that the personal protective equipment is in good condition. Report immediately any damage to the management for replacement. Always keep the personal protective equipment as clean as possible.

Monitoring should be designed and implemented by accredited professionals, as part of an occupational health and safety-monitoring program. Facilities should also maintain a record of occupational accidents and diseases. Projects should try to reduce the number of accidents among project workers (whether directly employed) to a rate of zero, especially accidents that could result in lost work time, different levels of disability, or even fatalities.

6.9.4. Material Storage guidelines

Storage practices to reflect the safety of workers are also developed in B.C.C JEWELRY MFG COMPANY LIMITED. All the chemical in the storage areas are secured, firmly placed and organized to prevent from any collisions that can affect the workers during working. Different materials will be stored separately by type and according to the designed layout.

6.9.5. First Aid Guidelines and Facilities

A well organized and proper first aid system is implanted to provide immediate first aid to anyone who is injured in the workplace and had also conducted the first aid training by Myanmar Red Cross Society. Adequate number of first-aid kits are listed and made available at all workplaces and contacts of medical providers; hospitals will be notified. The followings are some of the contents in a sample first aid kit.

- Bandage
- Adhesive Tape
- Antiseptic wipe
- Burn dressing and treatment items
- Cold pack
- CPR barrier
- Sterile wound dressings
- Sterile eye coverings
- Scissors, tweezers, compress

6.10. IMPACT OF WASTE DISPOSAL

Most activities of the jewelry manufacturing factory will generate the relatively low level of waste. Solid waste from production sector will consists of process waste such as Industrial waste would be generated from operation such as packing etc. and food waste, plastic, paper, glass, metal can, sanitary napkins, tissue paper, garden waste, etc. However, proposed factory has been implemented the solid waste disposal system by the segregation of waste type such as paper waste, food waste, production waste and hazardous waste according to their environmental health and safety guideline. The required rubbish bins have been provided and regularly checked and monitored by assigned person of proposed factory. Before send to dumping site of Dagon Myothit (East) Township Development Committee, the proper disposal waste facilities and temporary waste disposal site have been provided in the factory site and they should be followed and monitored the solid waste disposal system with the help of Municipal guidelines. Moreover, for the purpose of hygienic canteen, kitchen facilities and standard septic type of toilets, well-cleaned and well-maintained already provided for the proposed factory site.

6.10.1. Solid Waste

During the construction and decommissioning phase, various kinds of solid wastes will be generated. These wastes will be collected and clean every day to avoid any undesirable working condition and environmental impacts. Based on their types (glass, metal, plastic, wood, cement residues, oil spills and paper based), these solid wastes will be collected separately in rubbish bins.

In the operation phase, major solid wastes of the proposed jewelry factory may be generated from packing. In addition to factory solid waste, canteen, kitchen and dormitory will produce solid wastes mainly personal remnants, household wastes and food residues.

6.10.2. Liquid Waste

There may be expected no significant liquid waste from the construction and decommissioning phase. The main source of the liquid waste of these two phases may be from the sanitary wastewater.

During the operation phases, sanitary wastewater from the usage of toilet facilities, kitchen and canteens will be discharged as liquid waste. All of the liquid waste will be collected in septic tanks which are attached with proper sewage treatment tanks. Chemical containing wastewater from electroplating process will be first discharged to chemical treatment plant and treated water will be discharge as liquid waste. These liquid waste discharge through the drainage system.

6.10.3. Mitigation Measures for Waste Disposal

At B.C.C JEWELRY MFG COMPANY LIMITED, manufacturing of artificial jewelry factory, waste categorization has been developed into at least four types of waste that includes compost waste, lubricant waste, recycle waste such as poly propylene Bags (PP) and cardboards etc.

All of production waste such as webbing polyster pieces, carton, cardboard, cotton, plastic string and other non-hazardous waste will be collected by designated garBage bins and then sent to the temporary storage areas of solid waste in the project site area. In addition, pest control program has also implemented at the entrance of rodents and insects. B.C.C JEWELRY MFG COMPANY LIMITED also

has an agreement services with Dagon Myothit (East) Township Development Committee for waste disposal facilities to collect the all production waste, office waste and domestic waste. According to the waste management practice, B.C.C JEWELRY MFG COMPANY LIMITED, jewelry factory has provided the dedicated dustbins for paper waste, plastic waste and food waste for the proper disposal of waste. Appropriate recycling methods are in practice to dispose of the wastes in the environmentally friendly manner.



Figure 6-2 Solid waste management at B.C.C JEWELRY MFG. COMPANY LIMITED

CHAPTER 7 ENVIRONMENTAL MANAGEMENT PLAN

7.1. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

An Environment Management System (EMS) is a framework that helps an organization achieves its environmental goals through consistent review, evaluation, and improvement of its environmental performance. The assumption is that this consistent review and evaluation will identify opportunities for improving and implementing the environmental performance of the organization. The EMS itself does not dictate a level of environmental performance that must be achieved; each organization's EMS is tailored to its own individual objectives and targets.

An EMS encourages an organization to continuously improve its environmental performance. The system follows a repeating cycle. The organization first commits to an environmental policy, then uses its policy as a basis for establishing a plan, which sets objectives and targets for improving environmental performance. The next step is implementation. After that, the organization evaluates its environmental performance to see whether the objectives and targets are being met. If targets are not being met, corrective action is taken. The results of this evaluation are then reviewed by top management to see if the EMS is working. Management revisits the environmental policy and sets new targets in a revised plan. The company then implements the revised plan. The cycle repeats, and continuous improvement occurs.

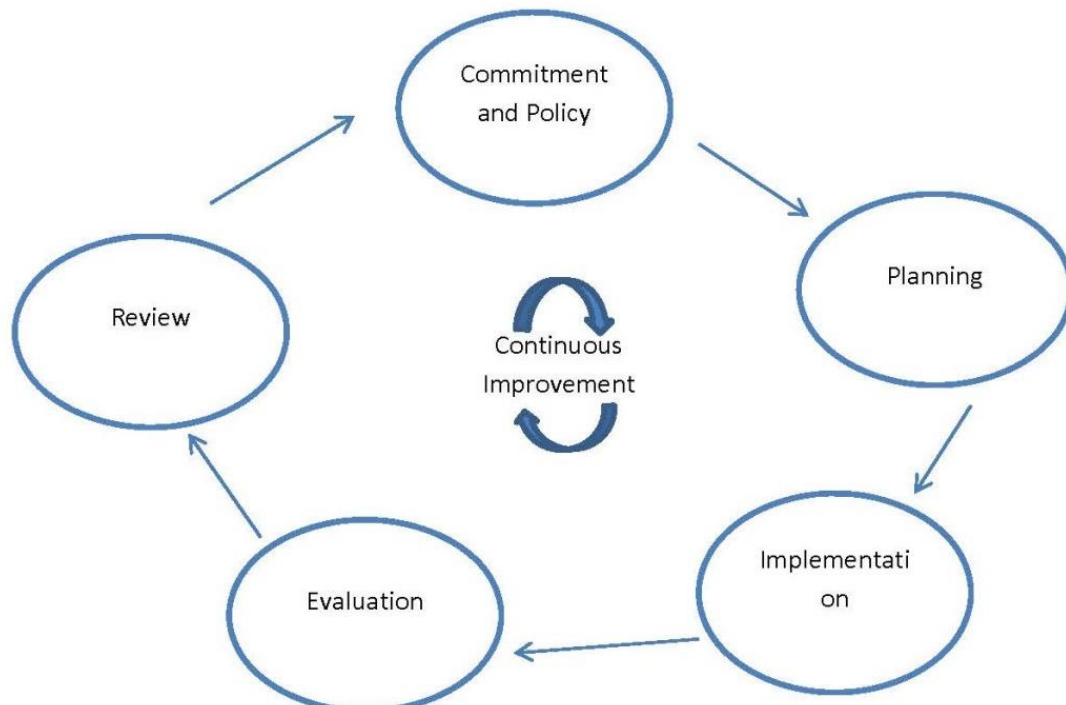


Figure 7-1 Continuous Improvement Circle

- **Commitment and Policy** – Top management commits to environmental improvement and establishes the organization's environmental policy. The policy is the foundation of the EMS.
- **Planning** – An organization first identifies environmental aspects of its operations. Environmental aspects are those items, such as air pollutants or hazardous waste that can have negative impacts on people and the environment. An organization then determines which aspects are significant by choosing criteria considered most important by the organization. For example, an organization may choose worker health and safety, environmental compliance, and cost as its criteria. Once significant environmental aspects are determined, an organization sets objectives and targets. An objective is an overall environmental goal (e.g., minimize use of chemical X). A target is a detailed, quantified requirement that arises from the objectives (e.g., reduce use of chemical X by 25% by September 1998). The final part of the planning stage is devising an action plan for meeting the targets. This includes designating responsibilities, establishing a schedule, and outlining clearly defined steps to meet the targets.
- **Implementation** – An organization follows through with the action plan using the necessary resources (human, financial, etc.). An important component is employee training and awareness for all employees. Other steps in the implementation stage include documentation, following operating procedures, and setting up internal and external communication lines.
- **Evaluation** – A company monitors its operations to evaluate whether targets are being met. If not, the company takes corrective action.
- **Review** – Top management reviews the results of the evaluation to see if the EMS is working. Management determines whether the original environmental policy is consistent with the organization's values. The plan is then revised to optimize the effectiveness of the EMS. The review stage creates a loop of continuous improvement for a company.

7.1.1. Institutional Requirement

B.C.C Jewelry MFG. Co., Ltd. will be managed the development of the proposed project. The project proponent should appoint Health, Safety and Environment (HSE) issues throughout the duration of the project phases. HSE team is responsible for implementation and monitoring of Environmental Management Plan (EMP) and Monitoring Plan as well as coordination with local authorities and the nearby communities. The HSE Team also makes regular review of EMP to cover all potential impacts, amendments and modifications.

7.2. 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 EMP:

B.C.C Jewelry MFG. Co., Ltd.: 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 B.C.C Jewelry MFG. Co., Ltd. for EMP implementation facilities.

Environmental Conversation Department (Yangon 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.

Third-Party Environmental Consultant: The environmental consultant will have to ensure that the proposed EMP is up to date and is being followed properly by the proponent. Periodic audits of the EMP will have to be done to ensure that its performance is as expected, by comparing with operating standards so that any corrective actions can be taken.

7.2.1. Structure and Responsibilities for the EMP Development and Implementation

The HSE officer is responsible to the HSE components of the project and on matters relating to the implementation of the EMP throughout operation life. The HSE officer will have responsibilities that include:

- Ensure a monitoring system is in place to track and report all health, safety and environmental incidents;
- Carry out a thorough initial site inspection of environmental controls prior to work commencement;
- Record and provide a written report to the General manager and production team of non-conformances with the EMP and require the HR supervisor to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP;

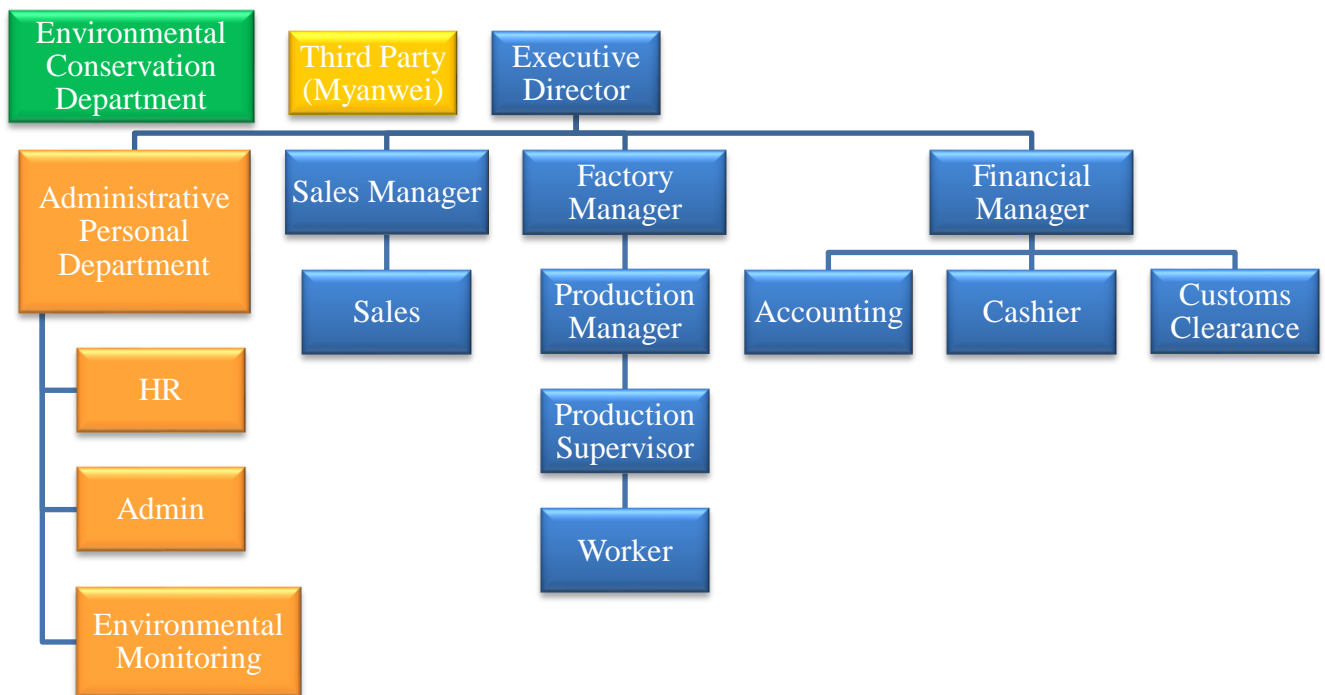


Figure 7-2 Organization Structure of Environmental Management Plan

7.3. ENVIRONMENTAL MANAGEMENT TEAM OF B.C.C JEWELRY MFG. COMPANY LIMITED

Name	Roles	Responsibilities
U Myo Lwin	Factory Manager	<p>The Factory Manager will be assisted by the General Manager and HSE Officer. In terms of environmental protection commitments, the Operation Manager will be the key driving force and will be responsible for:</p> <ul style="list-style-type: none"> Establishing overall environmental direction and policy Ensuring the implementation of the EMP Ensuring investigation of all environmental incidents are reviewed and that reports are submitted on time Ensuring an effective system of internal and external communication is in place Providing advice regarding the environmental program
U Khaing Win Gyi	General Manager	<p>The General Manager will assist the Factory Manager in looking into the overall environmental matters during the operational phase of the Project. The Operation Engineer will also be responsible for:</p> <ul style="list-style-type: none"> Adherence to the overall environmental direction and policy Ensuring the implementation of the recommended actions in the investigation of all environmental incidents Managing resources for operation wastes
Daw Khin Zar Htet,	HSE Officer	<p>The HSE Officer will be the key person in charge of all environmental matters pertaining to the site. The HSE Officer will be responsible for:</p>

Name	Roles	Responsibilities
Daw Su Htet San, Daw Yi Mon Oo		<ul style="list-style-type: none"> Coordinating the implementation of environmental programs, including monitoring of the project site environmental performance Performing periodic internal environmental audits and inspections to ensure compliance with the legal environmental requirements Ensure a monitoring system is in place to track and report all health, safety and environmental incidents; Carry out a thorough initial site inspection of environmental controls prior to work commencement; Record and provide a written report to the General Manager and production team of non-conformances with the EMP and require the HR Manager to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

7.4. ENVIRONMENTAL MANAGEMENT PROCESS

The Environmental Management Plan (EMP) prepared for the proposed project covers the anticipated impacts of the said project, mitigation measures, management and monitoring plans.

7.4.1. Air Pollution/Dust Management Plan

Objectives:	To minimize the adverse impact to air quality caused by stack gas emission from generator and also dust management generated from vehicular movement. To comply with relevant government rules	
Relevant government law and rule	National Environmental Quality (Emission) Guidelines (2015) Motor Vehicles Act, (2015)	
Time Frame	Entire life spans of the factory operation	
Management Plan	Must be plant around the proposed project to reduce carbon emission Should be prohibited burning of waste material at the proposed project site Must be control air pollution, the vehicles, generators and machineries have to check and maintain regularly. The factory should use chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. Must be ensuring vehicles, compressor and generator are well maintained.	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	Indoor and Outdoor of proposed project
	Parameters	PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂ , O ₃ , CO, VOC
Estimated cost	1,000,000 Kyats per year	
Responsibility	Management of the factory; 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	

7.4.2. Water Consumption Management Plan

Objectives:	The water consumption management is aimed at minimizing ground water use
Performance Indicator:	Prohibitions on accessing and using underground water without a license Water consumption saving of general water use from groundwater
Relevant government law and rule	The Underground Water Act (1930)
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 The contamination of water is avoided by suitable management of oil and fuel used in machineries and vehicles Trees plantation surrounding the factory
Monitoring & Reporting	Daily visual inspections
Time Frame	Once in a year throughout the factory life
Estimated cost	Approximately 500,000 kyats (annually)
Responsibility	Manager Arrange audit on water usage controls environmental officer

7.4.3. Odor Management Plan

Objectives:	To minimize adverse impact on indoor air quality and working environment	
Relevant government law and rule	Industrial odor control.2002. Environmental guideline No.9, Danish Environmental Protection Agency, Ministry of Envrioment	
Management Plan	Provide sufficient personal protective equipment (PPE) at the work place Improved ventilation system in operation area	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	One points in operation areas (Electroplating)
Estimated cost	Approximately 500,000 kyats (annually)	
Responsibility	HSE Manager or Environmental Management Team of B.C.C Jewelry MFG. Company Limited	

7.4.4. Wastewater Management Plan

Objectives:	To implementation plan for the management of liquid waste from collection, through treatment and resource recovery, to residual disposal
Relevant government law and rule	Yangon City Development Committee Law (2018), National Environmental Quality (Emission) Guidelines (2015), Underground Water Act
Time Frame	Entire life spans of the factory operation
Management Plan	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
	Parameters	pH, Turbidity, Conductivity, Iron, Sulphate, TSS, TDS, Manganese, COD, BOD, Cyanide, Copper, Zinc, Carbonate
	Proper maintenance of drainage and sewerage system will be conducted periodically	
Estimated cost	800,000 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	

7.4.5. Noise Management Plan

Objectives:	To avoid nuisance noise to nearby residents generated from generator and other machineries. 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	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	Two points in operation area (Granules Cutting and crushing)
	Parameters	Sound Decibel
Estimated cost	100,000 Kyats per year	
Responsibility	HSE Manager or Environmental Management Team of B.C.C Jewelry MFG. Company Limited	

7.4.6. Solid Waste Management Plan

Objectives:	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	Must be provides separate garbage bins at each building. All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area Final wastes should be disposed by using YCDC's service.	
Monitoring & Reporting	Daily wastes have to be collected and hand over to YCDC waste collector	

	The inventory record of waste disposal will be maintained as proof for proper management as designed
Estimated cost	50,000 Kyats per month
Responsibility	Manager (HR) Responsible for overall site cleanliness and waste management Regular waste collection to minimize excessive waste storage

7.4.7. Fire Management Plan

Objectives:	To ensure that fire control practices are implemented on site to minimise the risk of fire from site operations and bush fires
Relevant government law and rule	Myanmar Fire Brigade Law 2015
Time Frame	Entire life spans of proposed project operation
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 fire frightening. 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 extinguish, firefighting hose, portable fire pumps, fire hose reels, fire monitor and firefighting nozzles)
Estimated cost	1,200,000 Kyats per year
Responsibility	HSE Manager, Operation Manager or Environmental Management Team of B.C.C Jewelry MFG. Company Limited

7.4.8. Occupational Safety and Health Management Plan

Objective	To provide a broad framework for improving standards of workplace health and safety to reduce work-related injury and illness.
Relevant Government Law and Rule	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	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. 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 90dB(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	Weekly check fire extinguishers and water hydrant in position Daily inspect that all fire exist are open Servicing fire extinguisher and records accidents
Estimated Cost	500,000 Kyats per year
Responsible Person	HSE Manager, Operation Manager or Environmental Management Team of B.C.C Jewelry MFG. Company Limited

7.4.9. Energy Management Plan

Objectives:	To improve energy efficiency, reduce cost, optimize capital investment, reduce environmental and greenhouse gas emissions, and conserve natural resources
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	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 adult to find out the scope for energy saving
Estimated cost	Approximately 100,000 Kyats per year
Responsibility	Manager To arrange energy audit technical personnel To monitor and record electricity consumption, other related energy issues and take necessary actions if any problem arises

7.4.10. Emergency Response and Disaster Management Plan

Objectives:	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.
Relevant government law and rule	The Employment and Skill Development Law (August 2013), ILO guide to Myanmar Labour Law (2017)
Time Frame	Entire life spans of the factory operation
Management Plan	The factory management has taken proper measures to handle any emergency situation like fire, earthquake, flood and storm 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

	<p>Periodic inspection of safety relief valve provided with pressure vessels and equipment, preventive maintenance; aware the workers about electric shock by necessary training.</p> <p>Regular fire drill operation is conducted</p> <p>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 stay out of the building, trees, lump post, etc. Other relevant safety instruction of emergency situation it informed to workers by training</p> <p>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.</p> <p>A medical team has been prepared for primary treatment (First Aid)</p> <p>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.</p> <p>Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management</p> <p>Ensure proper training of the employees about the disaster management, fire safety as well as occupational health and safety</p>
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> <p>Arrange firefighting training after every 3 months</p> <p>Responsible for fire control and response</p> <p>Monitoring daily danger warning and bans</p>

7.5. ENVIRONMENTAL MONITORING SCHEDULE AND REPORTING

The EMoP cell members responsible may conduct daily, weekly or monthly general inspections of the project area and facilities. The objectives are to identify non-compliances to EMoP. Table 7-1 is provided the environmental monitoring schedule for B.C.C JEWELRY MFG. COMPANY LIMITED. The factory submits monitoring report to the Ministry not less frequently than every six (6) months, as provided in a schedule in the EMP,

Table 7-1 Environmental Monitoring Schedule for B.C.C JEWELRY MFG. COMPANY LIMITED

Issues	Parameter	Frequency	Area to be monitored	Monitoring cost	Responsible Organization
Operation Phase					
Air quality	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , O ₃ , CO, VOC	Biannually monitoring and reporting to ECD (first 3 years after operation)	Outdoor and Indoor of proposed project 16°53'28.89"N 96°13'32.37"E	800,000 Kyats	Environmental Management Team's B.C.C Jewelry MFG. Company Limited
Waste Generation	Solid waste	weekly	Recycle house and waste house and at the factory office 16°53'29.80"N 96°13'29.66"E	25,000 Kyats	Environmental Management Team's B.C.C Jewelry MFG. Company Limited
	Liquid waste (pH, Turbidity, Iron, Sulphate, TSS, TDS, Manganese, COD, BOD, Cyanide, Copper, Zinc, Carbonate)	Biannually	Domestic waste at the factory office Treated water from chemical treatment plant 16°53'27.92"N 96°13'32.34"E	1,000,000 Kyats	Environmental Management Team's B.C.C Jewelry MFG. Company Limited
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	At the factory 16°53'28.55"N 96°13'32.28"E	500,000 Kyats	Environmental Management Team's B.C.C Jewelry MFG. Company Limited
Light intensity	Illuminance	Monthly	At the production line (especially stone setting and Quality Control) 16°53'28.47"N 96°13'32.19"E	20,000 Kyats	Environmental Management Team's B.C.C Jewelry MFG. Company Limited
Occupational safety and health	-	Weekly	Operation area 16°53'28.55"N 96°13'32.28"E	500,000 kyats per year	Environmental Management Team's B.C.C Jewelry MFG.

Issues	Parameter	Frequency	Area to be monitored	Monitoring cost	Responsible Organization
					Company Limited
Noise	Noise level in decibel (dBA)	Biannually monitoring and reporting to ECD	16°53'28.63"N 96°13'32.39"E	100,000 kyats per year	Environmental Management Team's B.C.C Jewelry MFG. Company Limited
Emergency response	-	Weekly	the whole factory 16°53'28.55"N 96°13'32.28"E	1,500,000 Kyats per year	Environmental Management Team's B.C.C Jewelry MFG. Company Limited
Odor	Odor intensity	Biannually	One points in operation areas (Electroplating) 16°53'28.57"N 96°13'32.53"E	500,000 kyats per year	Environmental Management Team's B.C.C Jewelry MFG. Company Limited
Water consumption		Daily actual inspection	Once in a year throughout the factory life 16°53'29.04"N 96°13'31.81"E	500,000 kyats per year	Environmental Management Team's B.C.C Jewelry MFG. Company Limited
Decommissioning Phase					
Air quality	PM 2.5, PM 10, SO ₂ , NO ₂ , O ₃ , CO	One time during this phase	One point in the production area 16°53'28.55"N 96°13'32.28"E	1,000,000 Kyats	Project proponent
Noise	Noise level in decibel (dBA)	One time during this phase	One points in demolishing area 16°53'28.55"N 96°13'32.28"E	1,000,000 Kyats	Project proponent
Wastewater management	pH, Turbidity, Iron, Sulphate, TSS, TDS, Manganese, COD, BOD, Cyanide, Copper, Zinc, Carbonate	One time during this phase	One points in demolishing area 16°53'28.55"N 96°13'32.28"E	800,000 Kyats	Project proponent
Occupational safety and health	-	One time during this phase	All decommissioning area 16°53'28.55"N 96°13'32.28"E	500,000 Kyats	Project proponent

Issues	Parameter	Frequency	Area to be monitored	Monitoring cost	Responsible Organization
Fire	-	One time during this phase	All decommissioning area 16°53'28.55"N 96°13'32.28"E	800,000 Kyats	Project proponent
Emergency Response	-	One time during this phase	All decommissioning area 16°53'28.55"N 96°13'32.28"E	1,000,000 Kyats	Project proponent
Rehabilitation	Recovering and Revegetation	-	All decommissioning area 16°53'28.55"N 96°13'32.28"E	-	Project proponent

7.6. 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, B.C.C JEWELRY MFG. 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 EMP for operation phase annually. Estimation cost for EMP implementation is presented in Table 7-2.

Table 7-2 Cost estimation for EMP implementation

No	Item	Frequency/Times	Cost (MMK)
Mitigation Plan			
1	Maintenance of air ventilation system	Once per year	1,000,000 per year
2	Grass plantation within the area of factory compound	Once per three months	200,000 per three months
3	Solid waste disposal	Monthly	50,000 per month
4	Purchase of Personal Protective Equipment (PPE)	Once per half a year	150,000 per month
5	Medical Check-up and Health Insurances	Once per year	800,000 per year
Emergency Preparedness			
1	Fire extinguisher	Once per month	500,000 per year
2	Fire alarm system	Once per month	
3	First Aid Kits	Once per month	
Monitoring Plan			
1	Air Quality	Biannually	800,000 per year

No	Item	Frequency/Times	Cost (MMK)
2	Water Quality	Biannually	800,000 per year
3	Noise level	Biannually	100,000 per year
4	Odor	Biannually	500,000 per year
4	Waste generation (Solid, Liquid, Hazardous)	weekly	1,000,000 per year
5	Occupational health and safety	Monthly	500,000 per year
6	Environmental compliance auditing	1	600,000 lump sum

7.7. CAPACITY BUILDING AND TRAINING PLAN

The emergency preparedness is vital, as quick and correct response is necessary in case of emergency to reduce injuries, harm and other damage. Care should be given for during processing activities in order to prevent synthetic errors and accidental cases (e.g., electricity shock and fire hazards).

The emergency response plans should be established for handling all foreseeable emergencies in the workplace and must provide the following;

7.7.1. Assignment of responsibilities

All senior staff such as a line/production manager or safety officer should be assigned to lead the emergency response team and charged with the duties of (1) assessing the emergency and taking necessary actions (2) overseeing the implementation of the emergency response plan (3) organizing regular drill (4) ensuring all emergency equipment is well maintained.

7.7.2. Emergency procedures

Emergency procedures are operating instructions for employees to follow in emergency case

About work safety in the concerned processing, the management team should






- Identify and list out all possible emergency situations in the workplace
- Assess the effects and impacts of the emergency situations
- Establish emergency response plans
- Provide and maintain emergency equipment and other necessary resources
- Ensure that staff are familiarized with the arrangements in case of emergencies by providing procedural instructions and employee training and organizing drills

7.7.3. Training for Emergencies

The type, amount and frequency of training varies, depending upon the task's employees are expected to perform. Although training must be provided to employees at least annually, safety meetings and drills should be conducted at more frequent intervals.

Regardless of the specific type of facility, training should include, though not be limited to the following;

-  Hazard recognition and prevention (fire, explosion, etc.)

-  Proper use of fire extinguishers
-  Emergency reporting procedures
-  Preventive maintenance
-  Hazardous materials spill response
-  First Aid

7.7.4. Fire Prevention and Protection

The fire prevention and protection program must address the following topics:

Prevention; policies, practices and procedures designed to keep the conditions necessary for a fire from coming together

- Hot work permits
- Lockout/tag out policies
- Design specifications for storage of flammable materials

Severity reduction; policies, practices and procedures designed to reduce the spread of fire and end the fire.

- Emergency plans
- Alarm systems
- Portable fire extinguishers
- Fire Protection Equipment

Cleanup; policies, practices and procedures designed to return the affected area to an operational level and reduce other losses created by improper cleanup

- First aid
- Removal of debris to an appropriate waste site
- Equipment and facility repair

7.7.5. Fire Protection Equipment

1. Explosion Suppression Systems: Explosion suppression systems should be used in unusually hazardous areas such as elevator legs, boots and head, or in areas such as bins, distributors and tanks.
2. Portable Fire Extinguishers: All buildings within a facility must have fully charged and operable portable fire extinguishers. If employees are expected to use portable extinguishers or other firefighting equipment against incipient fires, they must be trained to use the equipment. Training must include the following:
 - Correct type of extinguisher to use on different classes of fire
 - Proper techniques for use of the equipment to extinguish a fire
3. Standpipes and Hoses: All areas within a facility that are above 75 feet from ground level and in which combustible materials other than grain are stored should have wet or dry standpipes and hoses installed.

4. Automatic Sprinkler Systems: Automatic sprinkler systems are recommended in areas containing combustible materials.
5. Fire Hydrants: All grain and feed mill facilities should have adequate public or private fire hydrants on site. Each fire hydrant should have an adequate water supply.

7.7.6. Fire Safety and Evacuation Plan

Fire Evacuation plans should include the following information

- Emergency escape routes must be clearly shown on floor plans and workplace maps
- Employers must know that their employees know the emergency escape routes
- Procedures for employees who must remain to operate critical equipment before evacuating
- Identification and assignment of personnel responsible for rescue or emergency medical aid

Fire Safety Plans should include the following information:

1. Procedure for reporting a fire or other emergency
2. Site plans indicating the following
 - The Occupancy assembly point
 - The locations of fire hydrants
 - The normal routes of fire department vehicles access
3. Floor Plans identifying the locations of the following
 - Exits
 - Primary evacuation routes
 - Secondary evacuation routes
 - Accessible egress routes
 - Areas of refuge
 - Exterior area for assisted rescue
 - Manual fire alarm boxes
 - Portable fire extinguishers
 - Occupant-use hose stations
 - Fire alarm annunciators and controls

The following American National Fire Fighting Association (NFFA) Standards must be following.

Table 7-3 American National Fire Fighting Association (NFFA) Standards

No.	Parameters	Proposed Capacity	Remark
1	Fire water flow	14 bars	
2	Deluging rate	12.0 liters/m2/min	
3	Foam rate	10.0 liters/m2/min	
4	Maximum water pressure	190 liters/min	For storage area

Emergency evacuation Drill: An exercise performed to train staff and occupants and to evaluate their efficiency and effectiveness in carrying out emergency excavation procedures

Employee Training and Response Procedures: Employee shall be trained in the fire emergency procedure described in their fire evacuation and fire safety plans and training should be based on these plans;

Frequency: Employee shall receive training in the contents of fire safety and evacuation plans and their duties as part of new employee orientation and at least annually thereafter. Records shall be kept and made available to the fire code official upon request.

Employee Training Program: Employee shall be trained in fire prevention, evacuation and fire safety in accordance with the following sections.

Fire Prevention Training - Employee shall be apprised of the fire hazards of the materials and processes to which they are exposed. Each employee shall be instructed in the proper procedures for preventing fires in the conduct of their assigned duties

Evacuation Training – Employees shall be familiarized with the fire alarm and evacuation signals, their assigned duties in the event of an alarm or emergency, evacuation routes, areas of refuge, exterior assembly areas and procedures for evacuation

Fire Safety Training – Employee assigned fire-fighting duties shall be trained to know the locations and proper use of portable fire extinguishers or other manual fire-fighting equipment and the protective clothing or equipment required for its safe and proper use.

7.7.7. Site Fire Control

1. Alert other people through fire alarm
2. If small, control using an extinguisher
3. Contact fire brigade if not under immediate control
4. Attend to human life in immediate danger
5. For electrical fires turn off power before fighting
6. Once out of the building, stay out. Do not allow people to go back into the burning building to collect valuables. While evacuating the building, close doors (but do not lock) to slow down the spread of fire
7. Obey all instructions
8. Proceed to an emergency evacuation area (Muster Point)

7.7.8. Employee Information and Training

Employees must be informed about any operations in their work area where hazardous chemicals or materials are present. They must also be informed about the locations and availability of the hazard communication program, list of chemicals and SDSs. Employees must receive training on the following:

- Methods for detecting the presence or release of a hazardous chemical, such as monitoring devices and the visual
- appearance or odor of the chemical
- Physical and health hazards of chemicals in their work area
- How to protect themselves using work practices, emergency procedures and personal protective equipment
- How to interpret the information on the labels and MSDSs

7.7.9. Health and Safety Training Plan for Worker

Health and Safety Training plan currently used and provided in B.C.C JEWELRY MFG. COMPANY LIMITED to all employees and workers by trainings internally and externally. Specific trainings are recommended and conducted according to the health and safety guidelines to enhance worker's health and to prevent all potential risks and hazards might occur in the factory. All required trainings related to health and the respective departments propose safety or operational parts, top management makes decision and HR organizes and conducts the trainings.

Table 7-4 Training Plan Used in B.C.C JEWELRY MFG. COMPANY LIMITED

No.	Health and Safety Guidelines	Training needs
1.	Management	General fire and emergency response plan, evacuation. All training materials and procedures covering health and safety for workers and employees
2.	Machine safety and noise management	Training for machine operations to all operators Use of PPE and proper use of any necessary protection Maintenance and Emergency procedures
3.	Environment safety	Understanding and training on recognition and maintenance not to affect environment
4.	Material storage and safety	Safety use of related devices and machines Use of necessary protections in working areas Sanitation work
5.	Fire Safety	Firefighting and evacuating training and practices Firefighting materials/ devices use
6.	First Aid	first aid / CPR/ AED training from providers (Outsource) training on hazard of pathogens

7.8. 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 B.C.C JEWELRY MFG COMPANY LIMITED representative from East Dagon Industrial Zone and representative from General Administration Department (East Dagon Township). 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 7-3) show steps of Grievance Redress Mechanism of Proposed Factory Project.

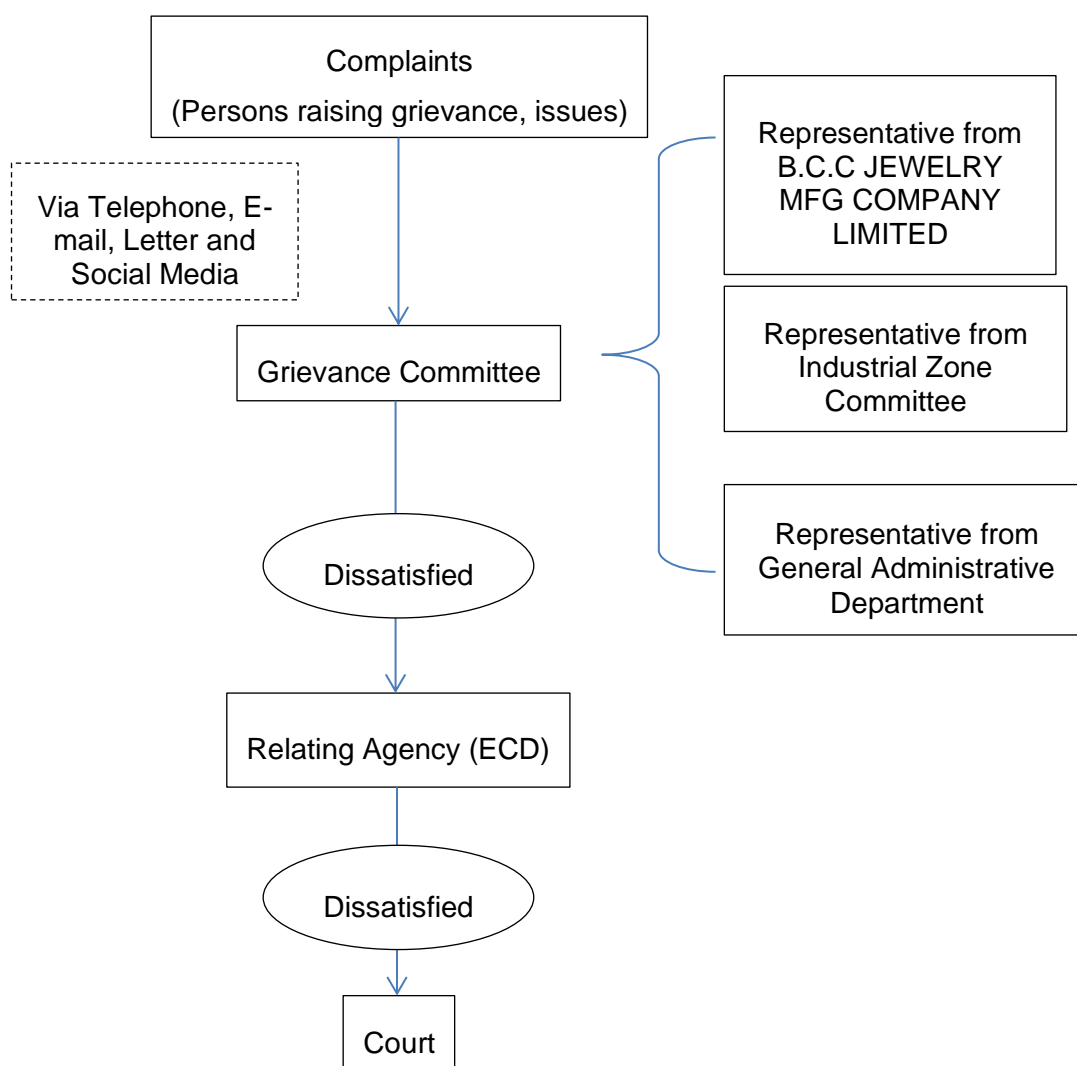


Figure 7-3 Grievance Redress Mechanism flow diagram

7.9. 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 B.C.C JEWELRY MFG COMPANY LIMITED consists of five main sectors; Education, Health, Religion, Environmental and Social Sector. CSR activities are conducted in compliance with YRIC's guideline for implementation of CSR program.

B.C.C JEWELRY MFG COMPANY LIMITED will contribute 2% of our Net Profit in every year to undertake development of our surroundings, to develop about education, religion, environment, health and social concerned with the proposed project. Part of our CSR activity such as donations will also contribute to public school around our factory (Table 7-5).

Table 7-5 CSR plan at B.C.C JEWELRY MFG COMPANY LIMITED

No	Particle	Contribution
1	Education Sector	0.6%
2	Health Sector	0.6%
3	Religion Sector	0.2%
4	Environmental Sector	0.4%
5	Social Sector	0.2%

7.9.1. Education Sector

We will contribute 0.6% of our net profit to the public schools near the factory 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.

7.9.2. Health Sector

One of our main concern is the well-being of our employees. We will contribute 0.6% of our net profit for the healthcare, which includes medical checkup for the employees and providing health education to our workers.

7.9.3. Religion Sector

We will contribute 0.2% of our net profit to the religious buildings near the factory to be a part of creating the better community.

7.9.4. Environmental Sector

We will contribute 0.4% of our net profit to improve the surrounding environment of our factory. We will work together with local communities and local authorities to promote environmental values and to live in a place that is clean and healthy.

7.9.5. Social Sector

We will contribute 0.2% of our net profit for the social welfare of our employees. This include job-related trainings, language trainings and safety trainings. The main objective of our trainings is that we want our manufacturing of jewelry with their work but also improving their other skills such as language and promoting knowledge about safety measures and occupational health employees to be not only become more productive and more qualified.

CHAPTER 8 PUBLIC CONSULTATION AND DISCLOSURE

8.1. PUBLIC CONSULTATION PROCESS

This chapter presents public consultation and information disclosures during the remaining period of the Initial Environmental Examination (IEE). Public consultation is the activities for gathering opinions and suggestions from related stakeholders. It will help to improve the implementation of the project, set the scope for the environmental impact assessment and development mitigation measures, which will be reported in the project's IEE report.

Public consultation conducted as part of this IEE project has three purpose:

- 1) Information the stakeholders about the Project, environmental and social issues related to project construction and operation, and mitigation measures to minimize environmental and social impacts;
- 2) Considering the views, concerns, and perceptions of stakeholders, communities and individuals that could be affected by the project or who otherwise have an interest in the project;
- 3) Participation and partnership where issues and needs are jointly discussed and assessed.

8.2. PUBLIC CONSULTATION MEETING

Public consultation meeting was conducted on 9th March 2023, 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. For this company, relevant key offices at the national level are Environmental Conservation Department (ECD). Relevant key office at the regional level is General Administrative Department, Fire Department, General Labor Law Inspection Department and, Public Health Department.

Public consultation carried out after the presentation on the project, followed by questions, answers and discussion. U Lynn Than Thaung presented IEE study and findings from Myanwei, after the presentation following questions and answer section. Summary of public consultation meeting is presented Table 8-1.

Table 8-1 Schedule of Public Consultation Meeting

Time and Date	Thursday, 9 th March 2023 10:00 AM – 11:15 Am
Venue	B.C.C Jewelry MFG. Company Limited's meeting room. (Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region)
Agenda	<ul style="list-style-type: none">• Introduction of B.C.C Jewelry MFG. Company Limited.

	<ul style="list-style-type: none">• Introduction of Initial Environmental Examination• Environmental Baseline Study of the proposed project• Impact Assessment, Environmental Mitigation Measure• Environmental Management Plan and Monitoring Plan• Performances of B.C.C Jewelry MFG. Company Limited
Organized by	Myanwei Environmental Solutions Company Limited

8.3. RECOMMEND SUGGESTION AND COMMENT


Public Consultation Meeting for the IEE of B.C.C Jewelry MFG. Company Limited was held on 9th March 2023. The detailed of the meeting, including the meeting time, venue and names of participated attended the consultation meeting are listed in APPENDIX J.


After the presentation, the floor opened for questions and answers. Most of the government stakeholders are suggested for good monitoring measure during operation.

Table 8-2 Summary of Public Consultation Meeting

Name	Description	Photo
U Myo Lwin (Factory Manger) B.C.C Jewelry MFG. Company Limited	<p>ကျွန်တော်ကတော့ B.C.C Jewelry MFG. Company Limited မှ စက်ရုံမန်နေဂျာ ဦးမျိုးလွင်ဖြစ်ပါသည်။ ပထမဦးစွာ လူထုတွေ့ဆုံပွဲသို့ ကြွရောက်လာသော ဌာနဆိုင်ရာ လူကြီးများနှင့်တကွ ရပ်မိရပ်ဖ အားလုံး မင်္ဂလာပါခင်ဗျာ။ ယခု စက်ရုံတည်ထောင်ရခြင်း၏ အဓိကရည်ရွယ်ချက်မှာ ကုမ္ပဏီအကျိုးအမြတ်တစ်ခုတည်းအတွက်မဟုတ်ဘဲ ဒေသခံပြည်သူများအတွက် အလုပ်အကိုင်အခွင့်အလမ်းအသစ်များဖန်တီးပေးနိုင်ရန်နှင့် jewelry ထုတ်လုပ်ခြင်းလုပ်ငန်းအား ကျွမ်းကျင်စွာ ဆောင်ရွက်နိုင်ရန်အတွက် ရည်ရွယ်ပါသည်။ ယခုအချိန်အခါတွင် artificial jewelry ထုတ်လုပ်ခြင်းလုပ်ငန်းအတွက် ပတ်ဝန်းကျင်နှင့်သက်ဆိုင်တဲ့ ကနဦး ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာအတွက် လူထုတွေ့ဆုံပွဲကျင်းပရခြင်းဖြစ်ပါသည်။ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် ပတ်သတ်တဲ့ အသေးစိတ် အချက်အလက်များကို Myanwei Environmental Solutions Company Limited မှ ဆက်လက်ရှင်းပြသွားမည်ဟုပြောကြားခြင်း နိဂုံးချုပ်အပ်ပါသည် ဟူ၍ B.C.C Jewelry MFG. Company Limited မှ စက်ရုံမန်နေဂျာ ဦးမျိုးလွင်မှ အဖွင့် အမှာစကားပြောကြားသွားပါသည်။</p>	

<p>U Lynn Than Thaug (Environmental Specialist)</p> <p>Myanwei Environmental Solutions Company Limited</p>	<p>ကျွန်တော်က Myanwei Environmental Solutions Company Limited မှာ Environmental Specialist အဖြစ် တာဝန်ယူ ထမ်းဆောင်နေတဲ့ လင်းသန်းသောင်းဖြစ်ပါသည်။ ကျွန်တော် ဒီနေ့ ရှင်းလင်းတင်ပြမဲ့အကြောင်းအရာကတော့ B.C.C Jewelry MFG. Company Limited ရဲ့ artificial jewelry ထုတ်လုပ်ခြင်း လုပ်ငန်းအတွက် ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း အစီရင်ခံစာမှ စီမံကိန်းကြောင့် ပတ်ဝန်းကျင်အပေါ် ထိခိုက်မှု နှင့် လျှော့ချခြင်း အကြောင်းအရာများကို ရှင်းလင်းတင်ပြသွားပါမည် ဖြစ်ပါသည်။ ပထမဦးစွာ ဆွေးနွေးတင်ပြမည့် အကြောင်းအရာများ မှာ B.C.C Jewelry MFG. Company Limited လုပ်ငန်းအား မိတ်ဆက် ပေးခြင်း၊ ထို့နောက် ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအား ရှင်းလင်းတင်ပြပြီး သက်ရောက်မှုဆန်းစစ်ခြင်း ရလဒ်များနှင့် ထိခိုက်မှု အဆင့်သတ်မှတ်ချက်များကို ရှင်းလင်းသွားပါမည်။ ထို့အပြင် ပတ်ဝန်းကျင်သက်ရောက်မှုများအပေါ် လျှော့ချမည့် နည်းလမ်းများ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုများ နှင့် စီမံကိန်း၏ ဆောင်ရွက်ချက်များကို ရှင်းလင်းတင်ပြသွားမှာ ဖြစ်ပါသည်။ ထို့နောက် စီမံကိန်းတည်နေရာ စီမံကိန်းဆောက်လုပ်မှု အခြေ အနေကို ရှင်းလင်းတင်ပြခဲ့ပါသည်။ ထို့နောက် ကနဦး ပတ်ဝန်း ကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာ ဆောင်ရွက်ရမည့် ပုံစံ အဆင့်ဆင့် ကို ရှင်းလင်းတင်ပြခဲ့ပါသည်။ ထို့နောက် စီမံကိန်း ဧရိယာအတွင်း</p>	 
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	<p>ရှိ ရေသိုလှောင်မှု အခြေအနေ၊ ကုန်ကြမ်းအသုံးပြုမှု အခြေအနေ များကို ရှင်းလင်းတင်ပြခဲ့ပါသည်။ ထို့နောက် စီမံကိန်း ဧရိယာ အတွင်းတွင် လေအရည်အသွေးတိုင်းတာမှု၊ အသံဆူညံမှု တိုင်းတာမှု၊ ရေအရည်အသွေးတိုင်းတာမှုများနှင့် ရလဒ်များအကြောင်းကို ရှင်းလင်းတင်ပြခဲ့ပါသည်။ ထို့နောက် ပတ်ဝန်းကျင်ထိခိုက်မှု နှင့် လျော့ချရေးအစီအစဉ်များကို ရှင်းလင်းတင်ပြပြီး ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်များနှင့် လူမှုအကျိုးပြု လုပ်ငန်းများအကြောင်းကို အသေးစိတ် ရှင်းလင်းတင်ပြခဲ့ပါသည်။</p>	
<p>Daw Nan Khin Su Mon (Staff Officer) Environmental Conservation Department (East Yangon District)</p>	<p>ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုရမည့် အစီအစဉ်များအား အစီရင်ခံစာတွင် ထည့်သွင်းဖော်ပြရာ၌ GPS Location အတိအကျ ဖြင့် ဖော်ပြသွားရန်၊</p> <p>Environmental Management Plane တွင် ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်များ ထည့်သွင်းရေးဆွဲရာတွင် ပြည့်စုံမှု ရှိစေရေး ဂရုပြုသွားရန်၊</p> <p>စီမံကိန်းမှ လုပ်ငန်းနှင့် ပတ်သက်သည့် လိုင်စင်၊ အထောက်အထားများအား အစီရင်ခံစာတွင် ပြည့်စုံစွာ ထည့်သွင်းဖော်ပြသွားရန်နှင့် လျှောက်ထားဆဲဖြစ်ပါက မှတ်ချက်အနေဖြင့် ဖော်ပြပေးသွားရန်၊</p>	

	<p>ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း အပိုဒ် (၅၈)၊ (၅၉) အရ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာတွင် ပါဝင်ရမည့် အချက်အလက်များအား ပြည့်စုံစွာ ထည့်သွင်းသွားရန်၊ အစီရင်ခံစာ အတည်ပြုရရှိပြီးပါက စောင့်ကြပ်ကြည့်ရှုခြင်း အစီရင်ခံစာအား ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနသို့ (၆)လတစ်ကြိမ် တင်ပြအစီရင်ခံသွားရန်၊ ဟူ၍ အကြံပြုဆွေးနွေးခဲ့ပါသည်။</p>	
<p>U Myo Lwin (Factory Manger) B.C.C Jewelry MFG. Company Limited</p>	<p>စီမံကိန်းမှ လုပ်ငန်းနှင့်ပတ်သက်သည့် လုပ်ငန်းလိုင်စင်၊ အထောက်အထားများအား ရရှိအောင် ဆောင်ရွက်နေပါကြောင်း၊ စီမံကိန်းကြောင့် ပတ်ဝန်းကျင်အပေါ် ထိခိုက်မှု မရှိစေရေး ကနဦး ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း အစီရင်ခံစာပါ အချက်အလက်များ အတိုင်း လိုက်နာဆောင်ရွက်သွားမည် ဖြစ်ပါကြောင်း၊ ဆွေးနွေးခဲ့ပါသည်။</p>	

<p>U Lay Tun (Senior Clerk) (Dagon Myothit (East) Township Municipal)</p>	<p>စက်ရုံအနေဖြင့် စွန့်ပစ်ပစ္စည်းများ စွန့်ပစ်သည့်နေရာတွင် မြို့နယ် စည်ပင်သာယာရေးဦးစီးဌာနနှင့် ချိတ်ဆက်ပြီး စနစ်တကျ စွန့်ပစ် သွားရန် ဆွေးနွေးတင်ပြခဲ့ပါသည်။</p>	
<p>U Lynn Than Thaung (Environmental Specialist) Myanwei Environmental Solutions Company Limited</p>	<p>ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုရမည့် အစီအစဉ်များအား အစီရင်ခံစာတွင် ထည့်သွင်းဖော်ပြရာ၌ GPS Location အတိအကျ ဖြင့် ဖော်ပြသွားမည်ဖြစ်ကြောင်း၊ စီမံကိန်းမှ ရရှိပြီးသော လုပ်ငန်းလိုင်စင်အထောက်အထားများ အား အစီရင်ခံစာတွင် ထည့်သွင်းဖော်ပြထားပြီး လျှောက်ထားဆဲ လိုင်စင်အထောက်အထားများအား အစီရင်ခံစာတွင် မှတ်ချက်ဖြင့် ထည့်သွင်းထားပါကြောင်း၊ အစီရင်ခံစာအတည်ပြုမိန့်ရရှိပြီးပါက ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့် ကြပ်ကြည့်ရှုခြင်းအစီရင်ခံစာအား ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာနသို့ (၆)လ တစ်ကြိမ် တင်ပြသွားမည် ဖြစ်ပါကြောင်း၊ စီမံကိန်းမှ ထွက်ရှိသော စွန့်ပစ်ပစ္စည်းများအား စနစ်တကျ စွန့်ပစ် သွားမည် ဖြစ်ပါကြောင်း၊ ပြန်လည်ဆွေးနွေးတင်ပြခဲ့ပါသည်။</p>	

CHAPTER 9

CONCLUSION AND RECOMMENDATION

9.1. CONCLUSION

IEE has been prepared for B.C.C JEWELRY MFG. COMPANY LIMITED located at between Latitude 16°53'28.57"N, Longitude 96°13'32.26"E and Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region.. 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 manufacturing of artificial jewelry on CMP basis.

B.C.C JEWELRY MFG. COMPANY LIMITED is using ground water for both industrial and household purpose, which is supplied by deep tube well. The factory also has generators for electricity generation. The fuel used in the industry is Diesel. The sanitary liquid waste of the factory is stored in septic tank.

The major pollution caused by the factory's operation are water pollution by discharging liquid waste generated from domestic usage and treated water from chemical treatment plant i.e. air pollution by generator's effluent gas emission, noise pollution created during the operation of generator and other machines.

Solid wastes (recycle waste) such as broken machine parts, paper box etc. are hand over to local waste buyer. Although the factory causes some pollution but also has a positive side and that is the factory has created employment for many people, due to this factory local community has built up daily.

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 artificial jewelry 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.

9.2. RECOMMENDATION

This is recommended that;

- All appropriate environmental management measures detailed in this report, together with any other environmental management commitments should be implemented throughout the entire life of the factory
- Solid wastes and liquid wastes need to dispose according to YCDC rules and regulation
- Workers should be provided proper training and it should be ensured that workers use PPE during factory operation area.
- Daily, monthly and annual action plan shall be formulated based on this EMP (Chapter 7) and practiced at operation level.
- Keep full records of environmental management activities and present to annual independent third-party environment audit.
- Abide environmental policy, laws, rules and instructions 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 report, effective implementation of IEE by the project proponent is essential. The proponent should abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

9.3. REFERENCES

- (1) Ministry of Natural Resources and Environmental Conversation (MONREC), Environmental Impact Assessment Procedure (2015)
- (2) Ministry of Natural Resources and Environmental Conversation (MONREC), National Environmental Quality (Emission) Guidelines (2015)
- (3) Department of Population; Dagon Myothit (East) Township Report
- (4) General Administration Department of Dagon Myothit (East) Township's Regional Data
- (5) Hla Hla Aung, Potential Seismicity of Yangon Region (Geological Approach), "Yangon Surface Displacement As Detected by Insar Time Series Analysis" July 2011.
- (6) [https://weatherspark.com/y/112503/Average-Weather-in-Yangon-Myanmar-\(Burma\)-Year-Round](https://weatherspark.com/y/112503/Average-Weather-in-Yangon-Myanmar-(Burma)-Year-Round).

APPENDIX A
Documents of B.C.C JEWELRY MFG. COMPANY LIMITED



ကုမ္ပဏီမှတ်ပုံတင်လက်မှတ်
Certificate of Incorporation

B.C.C. JEWELRY MFG. COMPANY LIMITED
Company Registration No. 124499798

မြန်မာနိုင်ငံကုမ္ပဏီများဥပဒေ၂၀၁၇ အရ
B.C.C. JEWELRY MFG. COMPANY LIMITED
အား ၂၀၂၀ ခုနှစ် ဇန်နဝါရီလ ၂၄ ရက်နေ့တွင်
အစုရှယ်ယာအားဖြင့် တာဝန်ကန့်သတ်ထား သည့် အများနှင့်မသက်ဆိုင်သောကုမ္ပဏီ
အဖြစ် ဖွဲ့စည်းမှတ်ပုံတင်ခွင့်ပြုလိုက်သည်။

This is to certify that
B.C.C. JEWELRY MFG. COMPANY LIMITED
was incorporated under the Myanmar Companies Law 2017 on 24
January 2020 as a Private Company Limited by Shares.



ကုမ္ပဏီမှတ်ပုံတင်အရာရှိ
Registrar of Companies
ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန
Directorate of Investment and Company Administration



Form (5-B)

THE REPUBLIC OF THE UNION OF MYANMAR

Yangon Region Investment Committee

ENDORSEMENT

Endorsement No. YGN-409/2020

Date 28 August 2020

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

- (1) Investor Name MR. WEI, YU-TSEN
- (2) Citizenship TAIWANESE
- (3) Residence Address NO.311, 8F, SEC.4, HSIN-YI ROAD, DA-AN DISTRICT,
TAIPEI CITY 10681, CHINA (TAIPEI)
- (4) Name and Address of Principal Organization CHONG INTERNATIONAL CO.,
LTD, ROOM S203A, SECOND FLOOR, ORION COMPLEX, VICTORIA, MAHE,
REPUBLIC OF SEYCHELLES
- (5) Place of Incorporation REPUBLIC OF SEYCHELLES
- (6) Type of business MANUFACTURING OF ARTIFICIAL JEWELLERY ON
CMP BASIS
- (7) Place(s) of investment PROJECT PLOT NO. 37,38, MYAY TAING BLOCK NO.
109, SETHMU, EAST DAGON MYOTHIT TOWNSHIP, YANGON REGION
- (8) Foreign Capital Amount US\$ 2.250 MILLION
- (9) Period for Foreign Capital to be brought in WITHIN 1 YEAR FROM THE
DATE OF ISSUANCE OF ENDORSEMENT
- (10) Total Amount of Capital (Kyat) EQUIVALENT IN KYAT OF US\$ 3.000
MILLION (INCLUDING US\$ 2.250 MILLION)
- (11) Construction/ Preparation Period 1 YEAR
- (12) Validity of Endorsement 30 YEARS
- (13) Form of Investment JOINT VENTURE
- (14) Name of Company Incorporated in Myanmar B.C.C. JEWELRY MFG.
COMPANY LIMITED



CF
28/8/2020

(Phyo Min Thein)

Chairman



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THE REPUBLIC OF THE UNION OF MYANMAR
YANGON REGION INVESTMENT COMMITTEE

Plot No. 49, Seinlae May Street,
Kabar Aye Pogada Road, Yankin Township, Yangon.

Tel : 01- 658263

Our ref :YRIC-1/E-409/2020(2145-D)

Fax: 01- 658264

Date : 28 August 2020

**Subject : Decision of the Yangon Region Investment Committee regarding on
Endorsement for manufacturing of artificial jewellery on CMP
basis under the name of B.C.C. Jewelry MFG. Company Limited**

Reference: B.C.C. Jewelry MFG. Company Limited's letter dated 28/7/2020.

1. The Yangon Region Investment Committee, at its (14/2020) meeting held on 26/8/2020, approved the Endorsement for investment for manufacturing of artificial jewellery on CMP basis under the name of B.C.C. Jewelry MFG. Company Limited submitted by Chong International Co., Ltd (75%) from the Republic of Seychelles, U Kyaw Htay (15%) and Daw Khaing Thet Mon (10%) from the Republic of the Union of Myanmar, as a Joint Venture investment in accordance with the Myanmar Investment Law and Rules.

2. The terms and conditions of the Endorsement are as follows:

- (a) The term of the Endorsed project shall be thirty (30) years commencing from the date of the issuance of the Endorsement by the Yangon Region Investment Committee.
- (b) The term of the Land and Building Lease Agreement shall be thirty (30) years commencing from the date of the agreement between U Kyaw Htay and Daw Khaing Thet Mon (Lessor) and B.C.C. Jewelry MFG. Company Limited (Lessee) by mutual agreement between the Lessor and the Lessee subject to the approval of the Yangon Region Investment Committee.

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- 2 -

- (c) The annual rent for land and building shall be US\$ 150000.00 (US\$ one hundred and fifty thousand only) for the total area of the land measuring 4.593 acres.
- (d) B.C.C. Jewelry MFG. Company Limited, may submit an application form for the right to use land under Chapter XII and exemptions and reliefs under Sections 75, 77 and 78 of Chapter XVIII of the Myanmar Investment Law.
- (e) B.C.C. Jewelry MFG. Company Limited shall use its best efforts to achieve a timely realization of the work stated in the Endorsement application.
- (f) B.C.C. Jewelry MFG. Company Limited shall obey and respect the responsibilities of investors under Section 65 of the Myanmar Investment Law and Chapter XX of the Myanmar Investment Rules.
- (g) B.C.C. Jewelry MFG. Company Limited shall carry out of prevention, mitigation and monitoring of significant environmental impacts according to the type of investment activities in accordance with the relevant laws, rules, regulations and procedures.
- (h) B.C.C. Jewelry MFG. Company Limited shall abide by the Fire Services Department's rules, regulations, directives and instructions. Moreover, B.C.C. Jewelry MFG. Company Limited shall undertake fire prevention measures such as the appropriate placement of water storage tank, fire hooks, sand bags, and fire extinguishers, and training will be provided to all employees regarding the use of fire fighting equipment. B.C.C. Jewelry MFG. Company Limited shall also appoint a specific individual who shall be called the Fire Safety Officer (FSO) who shall be designated responsible for on-site safety and coordination within the organization.
- (i) B.C.C. Jewelry MFG. Company Limited shall submit to the Myanmar Investment Commission any sublease, mortgage, transfer of

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- 3 -

shares or transfer of the business to any person during the investment period in accordance with Section 72 of Myanmar Investment Law and Rule 191 of the Myanmar Investment Rules.

(j) B.C.C. Jewelry MFG. Company Limited shall submit an annual report in the prescribed form to the Myanmar Investment Commission within three (3) months of the end of the financial year in accordance with Rule 196 of the Myanmar Investment Rules and shall disclose a summary of the report on its website or the Myanmar Investment Commission's website.

(k) B.C.C. Jewelry MFG. Company Limited must, during the operation period under the Endorsement of the Myanmar Investment Commission, submit its operating report quarterly in the prescribed form in accordance with Rule 197 of Myanmar Investment Rules.

3. B.C.C. Jewelry MFG. Company Limited shall carry out in accordance with the laws, regulations and stipulations of relevant Union Ministries, governmental department and governmental organizations the obtaining of any license, permit or registration as per Section 65(d) of the Myanmar Investment Law.

4. B.C.C. Jewelry MFG. Company Limited shall submit five (5) copies of all approvals, licences, permits and similar authorizations relevant to the initial implementation of the investment and Lease Agreement to the Yangon Region Investment Committee.

(Phyto Min Thein)

Chairman

B.C.C. Jewelry MFG. Company Limited

- cc: 1. The Office of the Union Government
2. Ministry of office of the Union Government

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3. Ministry of Home Affairs
4. Ministry of Planning, Finance and Industry
5. Ministry of Investment, Foreign Economic Relations
6. Ministry of Natural Resources and Environmental Conservation
7. Ministry of Labour, Immigration and Population
8. Ministry of Commerce
9. Central Bank of Myanmar
10. Office of the Myanmar Investment Commission
11. Chairman, CMP Enterprises Supervision Committee
12. Director General, National Archives Department
13. Director General, Customs Department
14. Director General, Internal Revenue Department
15. Director General, Directorate of Industrial Supervision and Inspection
16. Director General, Directorate of Investment and Company Administration
17. Director General, Department of Environmental Conservation
18. Director General, Directorate of Labour
19. Director General, Department of Immigration
20. Director General, Department of Trade
21. Monitoring and Supervision Division, Directorate of Investment and Company Administration

APPENDIX B

Amendment of Endorsement



THE REPUBLIC OF THE UNION OF MYANMAR

YANGON REGION INVESTMENT COMMITTEE

Amendment on Endorsement No. YGN- 409/2020 dated 28th August, 2020

The Yangon Region Investment Committee, at its meeting (4/2022) held on dated 27th April, 2022 approved the construction period of B.C.C Jewelry Mfg Company Limited which is carrying out manufacturing of artificial jewellery on CMP Basis be extended to six (6) months.

(11) **Construction/ Preparation Period** 1 YEAR +6 MONTHS (W.E.F 28-8-2021
to 27-2-2022)

For Chairman

(Myo Khaing Oo, Secretary)

Date : 29th April 2022

Location : Yangon





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THE GOVERNMENT OF THE REPUBLIC OF THE UNION OF MYANMAR
YANGON REGION INVESTMENT COMMITTEE

Plot No. 49, SeinLae May Street,
Kabar Aye Pagoda Road, Yankin Township, Yangon

Tel: 01- 658263

Our ref: YRIC-1/E-409/2022(349)

Fax: 01- 658264

Date : 29th April 2022

Subject: Decision of the Yangon Region Investment Committee for amendment of the construction period of B.C.C Jewelry Mfg Company Limited

Reference: B.C.C Jewelry Mfg Company Limited's letter dated 4-4-2022.

1. The Yangon Region Investment Committee, at its meeting (4/2022) held on dated 27th April, 2022 approved the construction period of B.C.C Jewelry Mfg Company Limited which is carrying out manufacturing of artificial jewellery on CMP Basis be extended to six (6) months.
2. Hence, the construction period of B.C.C Jewelry Mfg Company Limited is hereby amended to 1 year and 6 months (w.e.f 28-8-2020 to 29-2-2022) on the Endorsement No. YGN- 409/2020 dated 28-8-2020.
3. It is also notified that the B.C.C Jewelry Mfg Company Limited shall have to abide by all terms and conditions stated in the Yangon Region Investment Committee's Letter No. YRIC-1/E-904/2020(2145-D) dated 28-8-2020.

For Chairman
(Myo Khaing Oo, Secretary)

B.C.C Jewelry Mfg Company Limited

- cc: 1. The Office of the Union Government
2. Ministry of Home Affairs
3. Ministry of office of the Union Government (1)

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THE REPUBLIC OF THE UNION OF MYANMAR

YANGON REGION INVESTMENT COMMITTEE

Amendment on Endorsement No. YGN- 409/2020 dated 28th August, 2020

The Yangon Region Investment Committee, at its meeting (5/2022) held on dated 25th May, 2022 approved the construction period of B.C.C Jewelry Mfg Company Limited which is carrying out manufacturing of artificial jewellery on CMP Basis be extended to six (6) months.

(11) **Construction/ Preparation Period** 1 YEAR + 6 MONTHS +6 MONTHS

(W.E.F 28-2-2022 to 27-8-2022)

For Chairman

(Myo Khaing Oo, Secretary)

Date : 26th May 2022

Location : Yangon





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THE GOVERNMENT OF THE REPUBLIC OF THE UNION OF MYANMAR
YANGON REGION INVESTMENT COMMITTEE

Plot No. 49, SeinLae May Street,
Kabar Aye Pagoda Road, Yankin Township, Yangon

Tel: 01- 658263

Our ref: YRIC-1/E-409/2022(495)

Fax: 01- 658264

Date : 26th May 2022

Subject: Decision of the Yangon Region Investment Committee for amendment of the construction period of B.C.C Jewelry Mfg Company Limited

Reference: B.C.C Jewelry Mfg Company Limited's letter dated 27-4-2022.

1. The Yangon Region Investment Committee, at its meeting (5/2022) held on dated 25th May, 2022 approved the construction period of B.C.C Jewelry Mfg Company Limited which is carrying out manufacturing of artificial jewellery on CMP Basis be extended to six (6) months.
2. Hence, the construction period of B.C.C Jewelry Mfg Company Limited is hereby amended to 2 years (w.e.f 28-8-2020 to 27-8-2022) on the Endorsement No. YGN- 409/2020 dated 28-8-2020.
3. It is also notified that the B.C.C Jewelry Mfg Company Limited shall have to abide by all terms and conditions stated in the Yangon Region Investment Committee's Letter No. YRIC-1/E-409/2020(2145-D) dated 28-8-2020 and YRIC-1/E-409/2022(349) dated 29-4-2022.

For Chairman

(Myo Khaing Oo, Secretary)

B.C.C Jewelry Mfg Company Limited

- cc: 1. The Office of the Union Government
2. Ministry of Home Affairs
3. Ministry of office of the Union Government (1)

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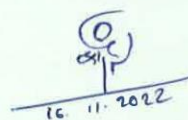
THE REPUBLIC OF THE UNION OF MYANMAR

YANGON REGION INVESTMENT COMMITTEE

Amendment on Endorsement No. YGN- 409/2020 dated 28th August, 2020

The Myanmar Investment Commission, at its meeting (4/2022) held on 21st October, 2022, approved the construction period of B.C.C Jewelry Mfg Company Limited which is carrying out manufacturing of artificial jewellery on CMP Basis be extended to 1 year, 4 months and 4 days as the last time.

(11) **Construction/ Preparation Period** 1 YEAR + 6 MONTHS + 6 MONTHS
+ 1 YEAR 4 MONTHS AND 4 DAYS (W.E.F 28-8-2022 to 31-12-2023)
(Due to the Covid- 19 Pandemic, the construction period from 1st May
2020 to 31st December 2021 (1 year and 8 months) will not be
counted)


16. 11. 2022

For Chairman

(Myo Khaing Oo, Secretary)

Date : 16th November 2022

Location : Yangon





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THE GOVERNMENT OF THE REPUBLIC OF THE UNION OF MYANMAR

YANGON REGION INVESTMENT COMMITTEE

Plot No. 49, SeinLae May Street, Kabar Aye Pagoda Road,
Yankin Township, Yangon

Tel: 01- 658263

Our ref: YRIC-1/E-409/2022(1038)

Fax: 01 - 658264

Date : 16th November 2022

Subject: Decision of the Yangon Region Investment Committee for amendment of the construction period of B.C.C Jewelry Mfg Company Limited

Reference: B.C.C Jewelry Mfg Company Limited's letter dated 10th June, 2022.

1. The Myanmar Investment Commission, at its meeting (4/2022) held on 21st October, 2022, approved the construction period of B.C.C Jewelry Mfg Company Limited which is carrying out manufacturing of artificial jewellery on CMP Basis be extended to 1 year, 4 months and 4 days as the last time.
2. Hence, the construction period of B.C.C Jewelry Mfg Company Limited is hereby amended to 2 years on the Endorsement No. YGN- 409/ 2020 dated 28th August, 2020.
3. It is also notified that B.C.C Jewelry Mfg Company Limited shall have to abide by all terms and conditions stated in the Yangon Region Investment Committee's Letter No. YRIC-1/E-409/2020(2145-D) dated 28-8-2020, YRIC-1/ E-409/2022(349) dated 29-4-2022 and YRIC-1/E-409/2022(435) dated 26-5-2022.

For Chairman

(Myo Khaing Oo, Secretary)

B.C.C Jewelry Mfg Company Limited

- cc: 1. The Office of the Union Government
2. Ministry of Home Affairs
 3. Ministry of office of the Union Government (1)
 4. Ministry of office of the Union Government (2)

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APPENDIX C

Consultant Registration Certificate



THE REPUBLIC OF THE UNION OF MYANMAR
Ministry of Natural Resources and Environmental Conservation
Environmental Conservation Department



CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION
(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 10068

Date 24 MAY 2019

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the organization under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၆၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို ထုတ်ပေးလိုက်သည်။)

- | | |
|--|--|
| (a) Name of Organization
(အဖွဲ့အစည်းအမည်) | Myanwei Consulting Co., Ltd. |
| (b) Name of the representative in the organization
(အဖွဲ့အစည်းကိုယ်စားလှယ်၏အမည်) | U Nyan Lynn Aung |
| (c) Citizenship of the representative in the organization
(အဖွဲ့အစည်းကိုယ်စားလှယ်နိုင်ငံသား) | Myanmar |
| (d) Identity Card /Passport Number of the representative person in the organization
(အဖွဲ့အစည်းကိုယ်စားလှယ်၏ မှတ်ပုံတင်/ နိုင်ငံကူးလက်မှတ် အမှတ်) | 12/Sakhana(N)056196 |
| (e) Address of organization
(ဆက်သွယ်ရန်လိပ်စာ) | No. 28, Myay nu street, Sanchaung Township,
Yangon, Myanmar.
Mobile phone: 09440251888
E mail: ceo@myanweiconsulting.com |
| (f) Type of Consultancy
(အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား) | Organization |
| (g) Duration of validity
(သက်တမ်းကုန်ဆုံးရက်) | 31 December 2019 |



Director General
Environmental Conservation Department
Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Facilitation of meeting,
2. Land use,
3. Legal analysis,
4. Geology and soil,
5. Occupational Safety and Health,
6. Public Health



EXTENSION
(သက်တမ်းတိုးခြင်း)
The VALIDITY of this certificate is extended
for one year from (1.1.2020) to (31.12.2020)
ဤလက်မှတ်အား (၁-၁-၂၀၂၀) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀)
ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
(သက်တမ်းတိုးခြင်း)
The VALIDITY of this certificate is extended
for six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်အား (၁-၁-၂၀၂၁) ရက်နေ့မှ (၃၀-၆-၂၀၂၁)
ရက်နေ့အထိ (၆)လသက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
(သက်တမ်းတိုးခြင်း)
The VALIDITY of this certificate is extended
for six months from (1.7.2021) to (31.12.2021)
ဤလက်မှတ်အား (၁-၇-၂၀၂၁) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၁)
ရက်နေ့အထိ (၆)လသက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

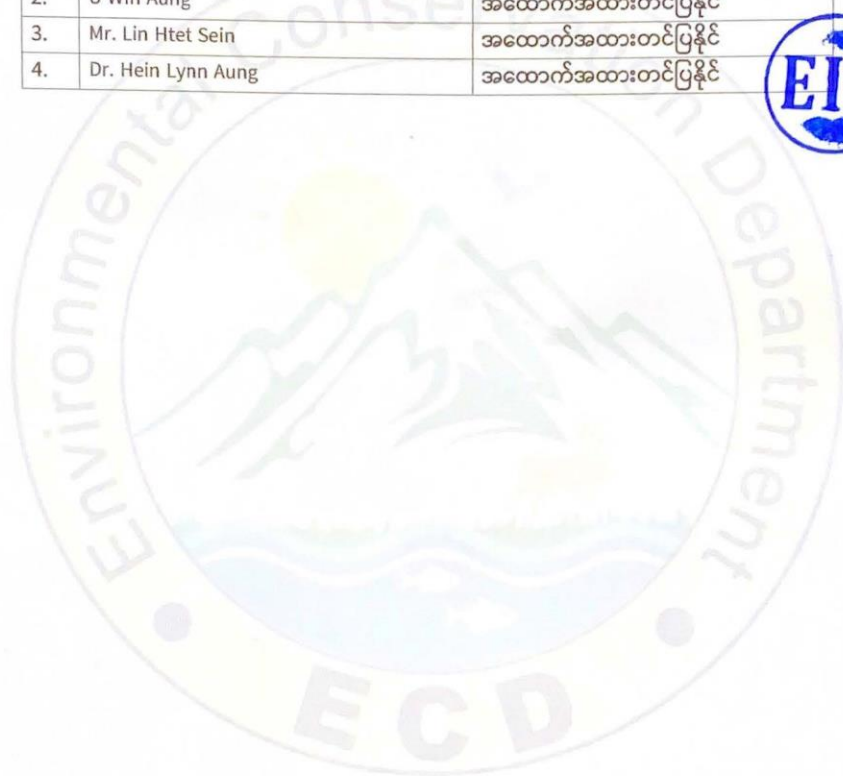
EXTENSION (သက်တမ်းတိုးခြင်း)
The VALIDITY of this certificate is extended
for one year from (1.1.2022) to (31.12.2022)
ဤလက်မှတ်အား (၁-၁-၂၀၂၂) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၂)
ရက်နေ့အထိ (၁) နှစ်သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးခြင်း)
The VALIDITY of this certificate is extended
for six months from (1.1.2023) to (30.6.2023)
ဤလက်မှတ်အား (၁-၁-၂၀၂၃) ရက်နေ့မှ (၃၀-၆-၂၀၂၃)
ရက်နေ့အထိ (၆)လသက်တမ်းတိုးမြှင့်သည်။
Sa Aung Thu
For Director General
(Sa Aung Thu, Director)
Environmental Conservation Department

(၁၁.၂၀၂၃) မှ (၃၀.၆.၂၀၂၃) အထိ သက်တမ်းတိုးရန် ပါဝင်သည့် Myanwei Consulting
Company Limited အဖွဲ့တွင် ပါဝင်သည့် အဖွဲ့ဝင်စာရင်း

သက်တမ်းတိုးထုတ်ပေးသည့် ရက်စွဲ။ ၃၁-၁-၂၀၂၃

No.	Members	Remarks
1.	Mr. Nyan Lin Aung	အထောက်အထားတင်ပြနိုင်
2.	U Win Aung	အထောက်အထားတင်ပြနိုင်
3.	Mr. Lin Htet Sein	အထောက်အထားတင်ပြနိုင်
4.	Dr. Hein Lynn Aung	အထောက်အထားတင်ပြနိုင်





REPUBLIC OF THE UNION OF MYANMAR
Ministry of Natural Resources and Environmental Conservation
CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION



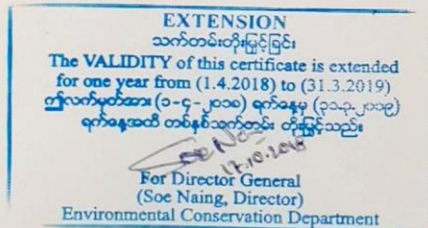
(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 10048 Date 17.03.2018

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the person under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၅၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို လူပုဂ္ဂိုလ်အားထုတ်ပေးလိုက်သည်။)

- | | |
|---|---|
| (a) Name of Consultant
(အကြံပေးပုဂ္ဂိုလ်အမည်) | U Lin Htet Sein |
| (b) Citizenship
(နိုင်ငံသား) | Myanmar |
| (c) Identity Card / Passport Number
(မှတ်ပုံတင်/နိုင်ငံကူးလက်မှတ် အမှတ်) | 7/ Tha Ka Na (N) 101377 |
| (d) Address
(ဆက်သွယ်ရန်လိပ်စာ) | No.54, Room No.704, Waizayantar Tower,
Waizayantar Road, Thingangyun Township,
Yangon.
lin.tbs@gmail.com , 09 421137569 |
| (e) Organization
(အဖွဲ့အစည်း) | Total Business Solution Co., Ltd. |
| (f) Type of Consultancy
(အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား) | Person |
| (g) Duration of validity
(သက်တမ်းကုန်ဆုံးရက်) | 31 March 2018 |



Handwritten signature in purple ink.

Director General
Environmental Conservation Department
Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Geology and Soil

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended
for six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်အား (၁-၁-၂၀၂၁) ရက်နေ့မှ (၃၀-၆-၂၀၂၁)
ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended
for six months from (1.7.2021) to (31.12.2021)
ဤလက်မှတ်အား (၁-၇-၂၀၂၁) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၁)
ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးမြှင့်ခြင်း)
The VALIDITY of this certificate is extended
for one year from (1.1.2022) to (31.12.2022)
ဤလက်မှတ်အား (၁-၁-၂၀၂၂) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၂)
ရက်နေ့အထိ တစ်နှစ် သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
25.3.2022
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended
for nine months from (1.4.2019) to (31.12.2019)
ဤလက်မှတ်အား (၁-၄-၂၀၁၉) ရက်နေ့မှ (၃၁-၁၂-၂၀၁၉)
ရက်နေ့အထိ (၉)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
10.6.2017
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended
for one year from (1.1.2020) to (31.12.2020)
ဤလက်မှတ်အား (၁-၁-၂၀၂၀) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀)
ရက်နေ့အထိ တစ်နှစ် သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
16.1.2020
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးမြှင့်ခြင်း)
The VALIDITY of this certificate is extended
for six months from (1.1.2023) to (30.6.2023)
ဤလက်မှတ်အား (၁-၁-၂၀၂၃) ရက်နေ့မှ (၃၀-၆-၂၀၂၃)
ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Sa Aung Thu
For Director General
(Sa Aung Thu, Director)
Environmental Conservation Department

APPENDIX D

Environmental Monitoring Quality Result

Noise result



No. 49 (B), Inya Yeik Thar Street, Mayangone Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 95185776, Mobile: (+95) 9421137569; Website: www.myanweiconsulting.com

Project Name:	B.C.C JEWELRY MFG COMPANY LIMITED
Project Location:	Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region.
Sampling Date:	December,23, 2022
Sampling Time:	10:00 am To 4:00 pm
Sampling Condition:	
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

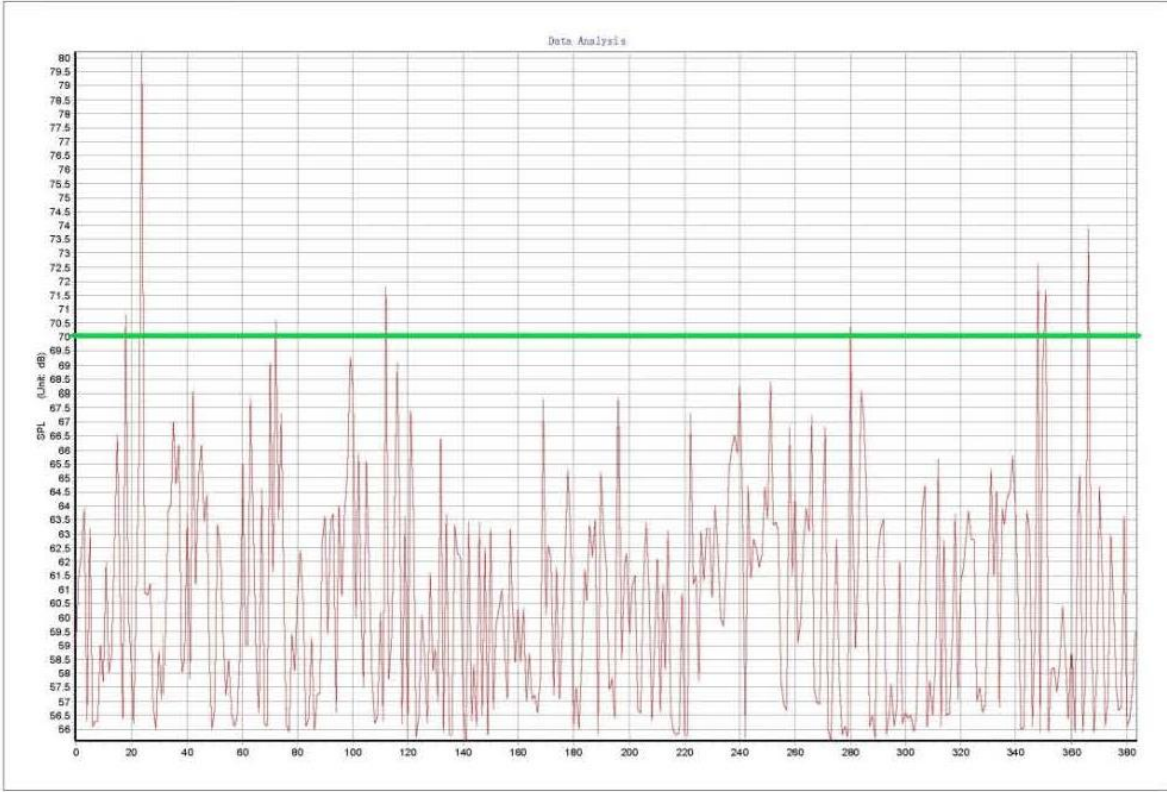
Instrument	Type	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30 -130 dB	16°53'28.63"N 96° 13'32.39"E

No	Place	Unit	Result	Standard	Remark
1	Operation Area	dBA	60.38	59.6 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 – 07:00 (22:00 – 10:00 for Public holidays)
Residential, Institutional, Educational	55	45
Industrial, Commercial	70	70

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.



Air Quality Result



No. 49 (B), Inya Yeik Thar Street, Mayangone Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 95185776, Mobile: (+95) 9421137569; Website: www.myanweiconsulting.com

Project Name:	B.C.C JEWELRY MFG COMPANY LIMITED
Project Location:	Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region.
Sampling Date:	December, 23, 2022
Sampling Time:	11:00 am (24-Hours)
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 , CO, VOC	0-999.9 (µg/m ³)	16°53'28.88"N 96°13'32.38"E

National Environmental Quality (Emission) Guideline

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

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
PM10	26.49	50	µg/m3	NEQG	24 hours
PM2.5	16.53	25	µg/m3	NEQG	24 hours
SO2	5.97	20	µg/m3	NEQG	24 hours
NO2	10.25	40	µg/m3	NEQG	24 hours
O3	35.92	100	µg/m3	NEQG	8 hours
CO	0.53	NG	µg/m3	-	-
VOC	0.02	NG	ppm	-	24 hours



LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Light Result



No. 49 (B), Inya Yeik Thar Street, Mayangone Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 95185776, Mobile: (+95) 9421137569; Website: www.myanweiconsulting .com

Project Name:	B.C.C JEWELRY MFG COMPANY LIMITED
Project Location:	Block No.37/38, Lot No. 109, Industrial, East Dagon Myothit Township, Yangon Region.
Sampling Date:	December, 23, 2022
Sampling Time:	8:00 am to 4:00 pm
Sampling Condition:	
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°21'45.80"N 96° 26'49.48"E

light Measurement Results

No.	Location	Measure value (Lux)	Standard*
1	Operation Area	328	300
2	Polishing	1054	1000
3	Stone Setting	1356	1000
4	Drying Room	581	600
5	QC	724	600
6	Packing	637	600

IEESNA Lighting Handbook

Department	Type of Light	Wattage of Light	Lux Level
Warehouse	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

A handwritten signature in blue ink, appearing to read 'Lin Htet Sein', is written over a light blue circular stamp.

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Drinking Water Result

ALARM Ecological Laboratory

Water Testing Result Report



Report Number: EL-WR-22-01003				Date : January 6, 2023	
Client Information Client Name : B.C.C Jewelry MFG Co., Ltd Organization : - Client ID : - Registration Date & Time : 23.12.2022 ; 4:00 PM Contact : 09-787939673 Email : - Testing Purpose : For Monitoring			Sample Information Sample ID : 8865 Sample Name : Drinking Water Sample Type / Source : Raw Sampling Date & Time : 23.12.2022 ; 3:00 PM Sample Location : အရှေ့ဒုံ Latitude : - 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	Drinking Standards	Remarks
1	pH ¹	6.4	S.U	6.5 – 8.5 ^c	Nearly Acid Range
2	Turbidity ³	< 5	FAU	≤5 ^c	Clear
3	Total Solids ³⁴	2	mg/L	-	-
4	Chloride ³	4	mg/L	≤250 ^c	Normal
5	Hardness ³	3	mg/L	≤500 ^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	0.6	mg/L	≤1 ^c	Normal
10	Lead ⁷	ND	mg/L	≤0.01 ^c	LOD = 0.1 mg/L
11	Manganese ³	0.5	mg/L	≤0.4 ^c	Above the limit
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 Thine Lab. Technician II Ecological Laboratory ALARM		Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM		Dr. Aye Aye Win Laboratory In-Charge Ecological Laboratory (ALARM)	

Treated Water Result

ALARM Ecological Laboratory

Water Testing Result Report



Report Number: EL-WR-22-01004

Date : January 10, 2022

Client Information

Client Name : B.C.C Jewelry MFG Co., Ltd
 Organization : -
 Client ID : -
 Registration Date & Time : 23.12.2022 ; 4:00 PM
 Contact : 09-787939673
 Email : -
 Testing Purpose : For Monitoring

Sample Information

Sample ID : 8866
 Sample Name : Treated Water
 Sample Type / Source : Treated
 Sampling Date & Time : 23.12.2022 ; 12:00 PM
 Sample Location : အရှေ့ဘုံ
 Latitude : -
 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 Standards	Remarks
1	pH ¹	7.3	S.U	6.0 – 9.0 ^d	Normal
2	Turbidity ³	6	FAU	-	-
3	Total Solids ^{3d}	209	mg/L	-	-
4	Chloride ³	7.3	mg/L	-	-
5	Hardness ³	42	mg/L	-	-
6	BOD ₅ ⁶	3	mg/L	≤ 50 ^d	Normal
7	COD ³	< 30	mg/L	≤ 250 ^d	Normal
8	Free Cyanide ³	< 0.01	mg/L	≤ 0.1 ^d	Normal
9	Arsenic ⁸	0.005	mg/L	≤ 0.1 ^d	Normal
10	Copper ⁷	4.4	mg/L	≤ 0.5 ^d	Above the limit
11	Iron ⁷	0.3	mg/L	≤ 3.5 ^d	Normal
12	Lead ⁷	ND	mg/L	≤ 0.1 ^d	LOD = 0.1 mg/L
13	Manganese ³	0.4	mg/L	≤ 2 ^d	Normal
14	Zinc ³	< 0.02	mg/L	≤ 2 ^d	Normal

"ND" = Not Detected

"LOD" = Lower limit of detection

" - " = No Reference Standard

Tested by	Checked by	Approved by
 Daw Mya Myat Khine Lab. Technician II Ecological Laboratory ALARM	 Aye Aye Win 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: aclab.2022@gmail.com

APPENDIX E

Fire Safety Certificate

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
ပြည်ထောင်စုဝန်ကြီးဌာန
မီးသတ်ဦးစီးဌာန

မီးဘေးလုံခြုံရေးစစ်ဆေးထောက်ခံချက်

အမှတ်စဉ်(၃၄၄)

ရက်စွဲ၊ ၂၀၂၂ခုနှစ်၊ ဩဂုတ်လ ၁ ရက်

၁။ ရန်ကုန်-တိုင်းဒေသကြီး/ပြည်နယ်၊ ဒဂုံမြို့သစ်(အရှေ့ပိုင်း) မြို့နယ်၊ မြေတိုင်းရပ်ကွက်အမှတ်(၁၀၉)၊ အရှေ့ဒဂုံစက်မှုဇုန် ရပ်ကွက်/ကျေးရွာ၊ ပြင်စည်မင်းသားကြီးလမ်းနှင့်ဒီပဲယင်းဝန်ထောက်ဦးမြလမ်းထောင့် လမ်းအမှတ် မြေကွက်အမှတ်(၃၇ + ၃၈) ရှိ ပိုင်ရှင် ဦး/ဒေါ်-ဦးကျော်ဌေး + ဒေါ်ခိုင်သက်မွန် ၏ Steel Structure (၃)ထပ် + Lift ပါ (လူသုံးကုန်နှင့်အထည်သိုလှောင်ရုံ) အဆောက်အဦအတွက် ဤဌာန၏ (၃၀-၄-၂၀၂၀) ရက်စွဲပါ စာအမှတ်၊ ၂၃၆၅ / ၁၀၀ / ၅၂ / ဦး ၁ ဖြင့် သတ်မှတ်ပေးထားသည့် မီးဘေးလုံခြုံရေးဆိုင်ရာပြဌာန်းချက်များအား (၃၁-၇-၂၀၂၂) ရက်နေ့တွင် စစ်ဆေးသည့်အခါ ပြည့်စုံစွာဆောင်ရွက်ထားကြောင်း စစ်ဆေးတွေ့ရှိရသည်။

၂။ ဤထောက်ခံချက်သည် စစ်ဆေးသည့်နေ့မှစ၍ (၃)နှစ်အထိသာ အကျိုးဝင်သည်။

၃။ ထို့ပြင် မီးသတ်ဦးစီးဌာနမှ အခါအားလျော်စွာ ထပ်မံစစ်ဆေးချိန်တွင် မီးဘေးလုံခြုံရေးဆိုင်ရာပြဌာန်းချက်များကို လိုက်နာဆောင်ရွက်ခြင်းမရှိပါက ဤထောက်ခံချက်ကို ပြန်လည်ရုတ်သိမ်းသွားမည်ဖြစ်ပြီး အဆောက်အဦအားအသုံးပြုသူ(သို့မဟုတ်)ပိုင်ရှင်သည် မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ဥပဒေအရအရေးယူခြင်းခံရမည်။

မှတ်ချက်။ ဤထောက်ခံချက်အား လွှဲပြောင်းသုံးစွဲခြင်းမပြုရ။ အဆောက်အဦအား မူလရည်ရွယ်ချက်မှ ပြောင်းလဲအသုံးပြုပါက ထောက်ခံချက်အသစ် ထပ်မံလျှောက်ထားရမည်။

ညွှန်ကြားရေးမှူးချုပ်(ကိုယ်စား)
(သိန်းထွန်းဦး၊ ညွှန်ကြားရေးမှူး)

F.S.C(Waylin)

APPENDIX F

Fire Protection Plan

B.C.C.JEWELRY MFG.COMPANY LIMITED

Corner of Pyinsi Min Thar Gyi Street & Dipe Yinn Wu Htauk U Myel Street, Block No.38,
Extension Industrial Zone, East Dagon Myothit Township, Yangon Region, Myanmar.

Ph : 09-5557373, 09-5178569

FIRE PROTECTION PLAN

Company : B.C.C. JEWELRY MFG. COMPANY LIMITED.

Factory Location : Block No.37/38, Corner of Pyinsi Min Thar Gyi Street & Di Pe Yinn Wu Htaut U Myel Street, Extension Industrial Zone, East Dagon Myothit Township, Yangon Region.

Purpose : How to prevent and protect from fires breaking out

There are altogether (3) sections in this plan.

Section (1) Educating our labourers

1. Making our labourers know the bad affects of fires breaking out
2. Explaining the causes of fire
3. Showing films about fire victims during lunch-time (It will act like a lesson as well as recreation)
4. Hanging big posters of fires braking out on the wall and sticker with signs of warning on the noticeboard.

Section (2) Preparations

Things mentioed below will be kept in the place which we can easily get.

: Water tank full of water
: Fire extinguisher
: Sand bucket
: Fire hook
: Fire stick

Section (3) Rules to follow

: Smoking is not allowed
: Pieces of snack-packing paper are to be thrown away in the bin systematically
: Electrical lines must be checked not to leave without switching off when working hours is over or when there is blackout.
: Matches must not be used near the machines
: Cooking is allowed only in the dinning room during lunch time.
: Petrol, diesel and other things which can easily cause fire because of heat especially in summer, should be kept in a particular place.

Sincerely,



Director

B.C.C. Jewelry MFG. Company Limited

APPENDIX G

Environmental Control Plan

B.C.C.JEWELRY MFG.COMPANY LIMITED

Corner of Pyinsi Min Thar Gyi Street & Dipe Yinn Wu Htauk U Myel Street, Block No.38,
Extension Industrial Zone, East Dagon Myothit Township, Yangon Region, Myanmar.
Ph : 09-5557373, 09-5178569

ENVIRONMENT CONTROL PLAN

Company : **B.C.C. JEWELRY MFG. COMPANY LIMITED.**

Factory Location : Block No.37/38, Corner of Pyinsi Min Thar Gyi Street & Di Pe Yinn Wu Htaut U Myel Street, Extension Industrial Zone, East Dagon Myothit Township, Yangon Region.

Objective : To take part in a role in reducing environmental pollution Companing.

Procedures

Our company nature is Artificial Jewellery(CMP Basic) Factory based on production.Waste has not been produced because of nature of the production and using latest machinery and technique. Dust bins will be kept at some corners in the factory to throw away our rubbish. The labourers will be trained to throw away our rubbish in a particular place, following the rules of YCDC department.

The production procedures have been performed as above ways to avoid environmental and social impact.

Therefore, we admit to reduce the environmental and social impact according to Initial Environmental Examination-IEE and Environmental Management Plan -EMP.

Sincerely,



Director

B.C.C. Jewelry MFG. Company Limited

APPENDIX H

Factory Social and Welfare Plan

B.C.C.JEWELRY MFG.COMPANY LIMITED

Corner of Pyinsi Min Thar Gyi Street & Dipe Yinn Wu Htauk U Myel Street, Block No.38,
Extension Industrial Zone, East Dagon Myothit Township, Yangon Region, Myanmar.

Ph : 09-5557373, 09-5178569

FACTORY SOCIAL AND WELFARE PLAN

Name of the Company :	B.C.C. JEWELRY MFG. COMPANY LIMITED.
Location :	Block No.37/38, Corner of Pyinsi Min Thar Gyi Street & Di Pe Yinn Wu Htauk U Myel Street, Extension Industrial Zone, East Dagon Myothit Township, Yangon Region.
Objective :	Social and Welfare plan with the intension of improving our labourers' abilities and living standards.
Planning :	Our planning will be done with (6) sub-plans.

Sub-plan (1) Self-cleanliness

1. To teach the labourers how to keep self-cleanliness - washing hands with soap before and after having meals and after using the toilet.
2. To train them to wear clean uniforms, gloves, masks and caps.
3. There will be a clean and ventilated dining room with enough tables and benches, clean drinking water, and soap for washing hands and lunch carries, and clean kitchen utensils for cooking.
4. The toilet will be soap, enough water and deodorant cakes. If necessary, some kinds of insect killing liquid will be sprayed.

Sub-plan (2) Medical Care

1. Sometimes, there will be medical educational speech.
2. There will be medical check-ups for some kinds of infectious diseases like tuberculosis.
3. If necessary, there will be treatment on free of charges.

Sub-plan (3) Recreation

1. For those who prefer to reading, there will be books chosen not only for pleasure but also for knowledge and the others on popular languages and technologies.
2. The dining room will be used both for having lunch and recreation.

Sub-plan (4) Ways of Training

1. Our members will be trained to be honest, good and clever ones by using awarding and punishing system.
2. Those who work hard will be on suitable job-training courses (evening classes), for example basic electrical course.
3. There will be a promotion and demotion system depending on their skills.
4. They will be trained to have mutual respects among senior and junior labourers and supervisors.
5. They will be trained to understand the value of unity in every field.

Sub-plan (5) Family-life plan

1. The children of our labourers will be supported with tuition-fees and scholarships.
2. Houses for them to live in will be arranged in the area which is not far from the factory.
3. If necessary, food and tonic will be supported.
4. Each labourer will have the chance of free and direct open talk or discussion to the managing director or a director if he has things on disagreement or argument or social problems.

Sub-plan (6) Our Promise

1. We promise to appoint our labourers according to the prevailing Myanmar laws.

Sincerely,



Director

B.C.C. Jewelry MFG. Company Limited

APPENDIX I

Power Point Presentation Slides

B.C.C Jewelry MFG. Company Limited ၏ Artificial Jewelry အမျိုးမျိုး ထုတ်လုပ်ခြင်းလုပ်ငန်း

ကုမ္ပဏီပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာ အတွက် သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးပွဲ အခမ်းအနား

၉ ရက်၊ မတ်လ၊ ၂၀၂၃ ခုနှစ်
Prepared By
Hyanwei Environmental Solutions Co., Ltd

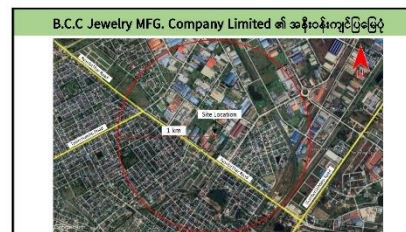
အစည်းအဝေး အကြောင်းအရာ

- ၁။ B.C.C Jewelry MFG. Company Limited အား မိတ်ဆက်ခြင်း။
- ၂။ ကုမ္ပဏီပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာအား မိတ်ဆက်ခြင်း။
- ၃။ သက်ဆိုင်သူများဆန်းစစ်ခြင်းရလဒ်များနှင့်ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ။
- ၄။ ပတ်ဝန်းကျင်အပေါ်သက်ရောက်မှုများ နှင့် ခြေလျှော့ရေးနည်းလမ်းများ။
- ၅။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် နှင့်
- ၆။ စက်ရုံ၏ဆောင်ရွက်ချက်များ။

B.C.C Jewelry MFG. Company Limited	
လုပ်ငန်းအမျိုးအစား	Artificial Jewelry အမျိုးမျိုးထုတ်လုပ်ခြင်းလုပ်ငန်း
အတည်ပြုထိန်းချုပ်မှု	YRC အတည်ပြုထိန်းချုပ်မှု (ရက်-၄၀၉/၂၀၂၀)၊ ၂၈ - ဩဂုတ်လ - ၂၀၂၀
ရင်းနှီးမြှုပ်နှံမှု	ဓာတ်စင်လုပ်ကိုင်ခြင်း (နိုင်ငံခြားသား ၇၅% + ငြိမ်းစားနိုင်သား ၂၅%)
မြေဧရိယာ	ဧရိယာပေါင်းခြေမီတာ (၄,၅၀၀ စတုရန်း) (၁၈၅၀၀၂ စတုရန်းမီတာ)
မြေပေးရက်စွဲ	ဓာတ်မှန်မြေ
ရင်းနှီးမြှုပ်နှံသည့်ကာလ	နှစ် (၃၀) ရင်းနှီးမြှုပ်နှံမှု
ဧကရာဇ်လိပ်စာ	မြေကွက်အမှတ်-(၃၇/၃၈)၊ မြေကိုင်ဆိုင်လက်အမှတ် (၁၀၅)၊ ဒဂုံမြို့သစ် အရှေ့ပိုင်း(မြို့နယ်) ရန်ကုန်တိုင်းဒေသကြီး

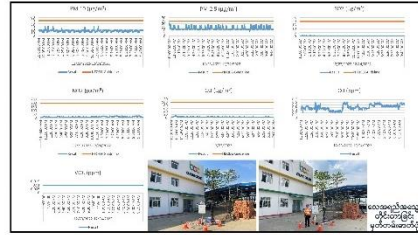


လုပ်ငန်းလည်ပတ်ရန် လိုအပ်ချက်များ	
ဓာတ်ရရှိမှုအခြေအနေ	
ဓာတ်အားရရှိမှု	အင်စတီတွင် (၁)တွင်း အမှတ် (၇၀၀) မေ
ဆေးသက်ရောက်မှု	ဧကရာဇ် ကိုယ်ပိုင်ဓာတ်အားစနစ် (RO Host System)
လုပ်ငန်းလည်ပတ်ရန် လိုအပ်ချက်	
ခန့်မှန်းသည့် လုပ်ငန်းအရ	၃၈၅ နှစ်
အဓိကကုန်ကြမ်း	silver/semi-manufactured silver 925, brass, synthetic stone, plating, silver accessory and etc.



လေအရည်အသွေး						
Date & Time	Parameter	Observed value	Guideline Value	Unit	Guideline Period	GPS Location
23 December 2022 10:00A to 12:00P	PM ₁₀	25.19	50	µg/m ³	NEQG 24 hours	16°53'28.88"N 96°13'37.38"E
	PM _{2.5}	15.83	25	µg/m ³	NEQG 24 hours	
	SO ₂	5.97	20	µg/m ³	NEQG 24 hours	
	NO ₂	13.25	40	µg/m ³	NEQG 24 hours	
	O ₃	35.92	100	µg/m ³	NEQG 6 hours	
24 December 2022	CO	0.53	NG	ppm	-	-
	VOC	0.02	NG	ppm	-	

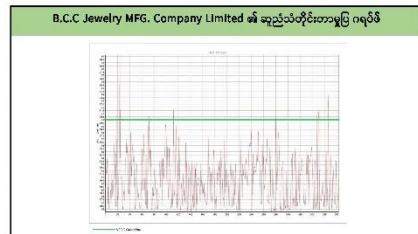
အထက်ဖော်ပြပါ လေအရည်အသွေးတိုင်းတာမှု ရလဒ်များအရ B.C.C. Jewelry MFG. Company Limited ဝှင် လေအရည်အသွေးတိုင်းတာမှု ရလဒ်များကို National Environmental Quality (Emission) Guideline အတွင်း တွင်ပါနေသည်ကို အမှန်စင်စစ်ဖြစ်ပါသည်။




ဆည်သံတိုင်းတာမှု				
Date & Time	Location	GPS Location	Noise Result	NEQ Guideline
23 December 2022 (10:00A to 4:00 PM)	Operation Area	16°53'28.63"N 96°13'32.39"E	50.6 dBA	70 dBA

အထက်ဖော်ပြပါ ဆည်သံတိုင်းတာမှု ရလဒ်များအရ B.C.C. Jewelry MFG. Company Limited ဝှင် ဆည်သံတိုင်းတာမှု ရလဒ်များကို National Environmental Quality (Emission) Guideline အတွင်း တွင်ပါနေသည်ကို အမှန်စင်စစ်ဖြစ်ပါသည်။



အနံ့ထွက်ရှိမှု တိုင်းတာမှု			
Date & Time	Location	GPS Location	Measurement Result
23 December 2022 (10:00A to 4:00 PM)	Operation Area	16°53'28.63"N 96°13'32.39"E	0.30 ppm



အထက်ဖော်ပြပါ ချက်အစီအစဉ်အရ အနံ့ထွက်ရှိမှုတိုင်းတာမှု ရလဒ်များကို National Environmental Quality (Emission) Guideline အတွင်း တွင်ပါနေသည်ကို အမှန်စင်စစ်ဖြစ်ပါသည်။

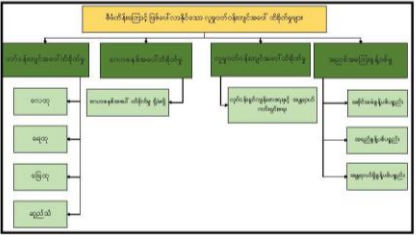
အလင်းရောင်ရှိမှု တိုင်းတာခြင်း				
Date & Time	Parameter	Observed Value	Standard	Unit
23 December 2022	Operation Area	328	300	Lux
	Working	1554	1000	Lux
	Store Sorting	1255	1000	Lux
	Storage Room	981	600	Lux
	QC	724	600	Lux
	Packing	637	600	Lux

အထက်ဖော်ပြပါ ချက်အစီအစဉ်အရ အလင်းရောင်ရှိမှုတိုင်းတာမှု ရလဒ်များကို National Environmental Quality (Emission) Guideline အတွင်း တွင်ပါနေသည်ကို အမှန်စင်စစ်ဖြစ်ပါသည်။

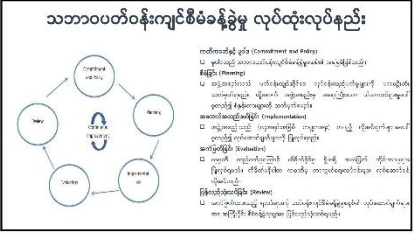
Chemical Treatment Plant မှ စွန့်ထုတ်သည့် ရေအရည်အသွေးတိုင်းတာမှု	
	

RO Host System မှ သန့်စင်ပြီးသည့် ဆောက်သုံးရေအရည်အသွေးတိုင်းတာမှု	
	

ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများနှင့် ဖြေလျှော့ရေးနည်းလမ်းများ

[illegible][illegible]

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်



ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ဆိုင်ရာအဖွဲ့

[illegible]

APPENDIX J

Public Consultation Meeting Attendent List

B.C.C Jewelry MFG. Company Limited

လူထုတွေ့ဆုံဆွေးနွေးပွဲသို့ တက်ရောက်အကြံပြုဆွေးနွေးသူများစာရင်း

ရက်စွဲ။ ၂၀၂၃ ခုနှစ်၊ မတ်လ၊ (၉) ရက်

စဉ်	အမည်	ရာထူး	ဌာန/အဖွဲ့အစည်း	ဆက်သွယ်ရန် ဖုန်းနံပါတ်	လက်မှတ်
၁	ဦးလေးထွန်း	ဒေါက်တာတင်စာလျှင်	ဗြိတိသျှဆင်းမင်	၀၉-၄၃၁၃၅၂၇	
၂	ဒေါ်နီ.ဝေလှိုင်	ဒေါ်နီ ကျော်	CCD အခြေခံဆိုင်	၀၉-၂၅၇၃၃၅၂၈၂	
၃	အောင်ထက်		BCC	၀၉-၄၀၄၃၁၈၇၈၂	
၄	မစန္ဒီမျိုးရှေ့		BCC	၀၉-၇၈၁၀၃၃၃၅၈	
၅	ဦးကျော်မင်းဆိုင်	လွှမ်း - ဗ	ဗြိတိသျှဆင်းမင်	၀၉-၂၅၇၂၇၇၅၈၈	
၆	ဦးအောင်လှိုင်	အလုပ်သမား	BCC	၀၉-၇၇၅၃၃၀၁၀၇	
၇	ကျော်စိုးဝင်း	Mgr.	B.C.C	၀၉-၅၀၇၂၈၈၂	
၈	ကျော်မျိုးနွယ်	Mgr.	B.C.C	၀၉-၇၇၇၇၇၇၈၈	
၉	Su Myat Hlaing	Env. Engineer	Myanwei	၀၉-၇၆၇၂၃၅၈၄	
၁၀	Htun Lin Kyaw	Env. Specialist	-	၀၉-၄၄၈၈၄၁၀၇၀	
၁၁	Lynn Than Theung	Env. consultant	Myanwei Envi Solutions	၀၉-၇၆၆၇၇၆၅၈	
၁၂	Kaung Sett Lwin	Env. Specialist	Myanwei	၀၉-၇၈၇၇၇၇၆၃	

APPENDIX K

List of Commitment

B.C.C JEWELRY MFG. COMPANY Limited ၏ CMP စနစ်ဖြင့် လက်ဝတ်ဆန်ဆာအမျိုးမျိုးထုတ်လုပ်ခြင်းလုပ်ငန်းကြောင့် ဖြစ်ပေါ်လာနိုင်သော သဘာဝပတ်ဝန်းကျင်၊ လူမှုဘဝနှင့် ကျန်းမာရေးထိခိုက်မှုများရှိခဲ့ပါက လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့်တားဆီးရေးအစီအစဉ်များကို ကနဦးပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ် (Initial Environmental Examination – IEE and Environmental Management Plan - EMP) တွင်ပါဝင်ရမည့်အချက်များကို အကောင်အထည်ဖော် စီမံဆောင်ရွက်သွားမည်ဖြစ်ကြောင်း အောက်ဖော်ပြပါ ဇယားဖြင့် အကျဉ်းချုပ်စာရင်းပြုစု ဖော်ပြထားပါသည်။

ကတိကဝတ်၏အတိုချုပ်အမည်	အမှတ်စဉ်	ကတိကဝတ်အားရှင်းလင်းချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
စီမံကိန်းအကြောင်းအရာဖော်ပြချက်	၁	<ul style="list-style-type: none"> Initial Environmental Examination- IEE အစီရင်ခံစာရေးဆွဲခြင်း၏ ရည်ရွယ်ချက်၊ စီမံကိန်းအကြောင်းအရာဖော်ပြချက်၊ စီမံကိန်းတည်နေရာ၊ စက်ရုံဖွဲ့စည်းတည်ဆောက်မှုပုံစံ၊ စီမံကိန်း လည်ပတ်မှုအစီအစဉ်၊ လုပ်ငန်း လည်ပတ်ရာတွင် လိုအပ်ချက်များနှင့် စက်ရုံ၏ ဆောင်ရွက်ထားရှိမှုများ။ 	အခန်း (၁)
စီမံကိန်းအဆိုပြုသူ	၂	<ul style="list-style-type: none"> စီမံကိန်းနောက်ခံအကြောင်းအရာနှင့် ရင်းနှီးမြှုပ်နှံမှုအစီအစဉ်။ 	အခန်း (၂)
IEE ရေးဆွဲသည့် အဖွဲ့အစည်း	၃	<ul style="list-style-type: none"> IEE တွင် ပါဝင်ရေးဆွဲသည့် လူပုဂ္ဂိုလ်များနှင့်တာဝန်ယူမှုအပိုင်းများ။ 	အခန်း (၃)
မူဝါဒ၊ ဥပဒေနှင့် အဖွဲ့အစည်းဆိုင်ရာမူဘောင် များ	၄	<ul style="list-style-type: none"> ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ (၂၀၁၂) ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနည်းဥပဒေ (၂၀၁၄) ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း (၂၀၁၅) 	အခန်း (၄)

		<ul style="list-style-type: none"> • အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅) • မြန်မာနိုင်ငံမှချမှတ်ထားသောစက်ရုံနှင့်သက်ဆိုင်သည့် တခြားလိုက်နာဆောင်ရွက်ရမည့်လုပ်ထုံးလုပ်နည်း၊ ဥပဒေ၊ နည်းဥပဒေ နှင့်မူဝါဒများ • နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသတ်မှတ်ချက်များနှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များ 	
ပတ်ဝန်းကျင်အရည်အသွေးတိုင်းတာမှု	၅	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)နှင့် နိုင်ငံတကာပတ်ဝန်းကျင်ဆိုင်ရာ စံသတ်မှတ်ချက်များနှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များကို အခြေခံလေ့လာ တိုင်းတာထားပါသည်။	အခန်း (၅)
စီမံကိန်းအတွင်း အပူချိန်နှင့် စိုထိုင်းဆ	၅.၁	စီမံကိန်း၏ လက်ရှိအခြေအနေအား တိုင်းတာဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၂.၁)
လေအရည်အသွေး	၅.၂	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) ၏ ထုတ်လွှတ်အမိုးအငွေ့ Air Emission လမ်းညွှန်သတ်မှတ်ချက်တို့ဖြင့် နှိုင်းယှဉ်ဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၂.၂)
ဆူညံသံ	၅.၃	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)၏ အမြင့်ဆုံးလက်ခံနိုင်သည့် ဆူညံသံအဆင့် (Noise Level) စက်မှုဇုန်ဧရိယာတွင် 70 One hour LAeq (dBA) ဖြင့်နှိုင်းယှဉ်ဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၂.၃)

အနံ့	၅.၄	အဆိုပြုစီမံကိန်း၏ လုပ်ငန်းခွင်အတွင်း တိုင်းတာဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၂.၄)
အလင်းရောင်ရရှိမှု	၅.၅	Illumination and Limiting Glare Index based on IES Code, 1968 ဖြင့်နှိုင်းယှဉ်ဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၂.၅)
စွန့်ပစ်ရေ	၅.၆	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)၏ စွန့်ပစ်ရေ (Wastewater) လမ်းညွှန်သတ်မှတ်ချက်ဖြင့် နှိုင်းယှဉ်ဖော်ပြ ထားပါသည်။	အခန်းခွဲ (၅.၂.၆)
သောက်သုံးရေ	၅.၇	WHO Drinking Water Guideline ဖြင့် နှိုင်းယှဉ်ဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၂.၇)
ဒေသဆိုင်ရာအချက်အလက်များ	၅.၈	ဒဂုံမြို့သစ်အရှေ့ပိုင်းမြို့နယ်အထွေထွေအုပ်ချုပ်ရေးမှူးရုံးနှင့် ဒဂုံမြို့သစ် အရှေ့ပိုင်း မြို့နယ် ပြည်သူ့အင်အားဦးစီးဌာနမှ အချက် အလက်များကို ဖော်ပြထားပါသည်။	အခန်းခွဲ (၅.၄)၊ (၅.၅)၊ (၅.၆)
ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းနှင့် လျှော့ချရေးနည်းလမ်းများ	၆	ဆန်းစစ်ခြင်းနည်းလမ်း သိသာထင်ရှားသောသက်ရောက်မှု = (ကျယ်ပြန့်မှု + အချိန် + ပမာဏ)* ဖြစ်နိုင်ခြေ	အခန်းခွဲ (၆.၁)
	၆.၁	ထိခိုက်မှုဆန်းစစ်ခြင်း <ul style="list-style-type: none"> • ကောင်းကျိုး • အလုပ်အကိုင်အခွင့်အလမ်းပေါများလာခြင်း၊ 	အခန်းခွဲ (၆.၂)

		<ul style="list-style-type: none"> • လမ်းပန်းဆက်သွယ်ရေးကောင်းမွန်လာခြင်း၊ နည်းပညာများ တိုးတက်လာခြင်း။ • ဆိုးကျိုး <ul style="list-style-type: none"> • သဘာဝပတ်ဝန်းကျင်အရင်းအမြစ်များ၊ ဂေဟစနစ်အရင်း အမြစ်များ၊ လူသားများအပေါ် ထိခိုက်မှုများ၊ အမှိုက်စွန့်ပစ်ခြင်းကြောင့် ထိခိုက်မှုများ။ 	
ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု	၇	<ul style="list-style-type: none"> • B.C.C JEWELRY MFG. COMPANY LIMITED ၏ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာအတွက် စက်ရုံစီမံခန့်ခွဲရေးအဖွဲ့၊ အလုပ်သမားများ၊ ဒေသခံလူထုများ၏ အမြင်၊ သက်ဆိုင်ရာတာဝန်ရှိသူတို့၏ အကြံပြုချက်များနှင့် ကွင်းဆင်းလေ့လာသူများမှ ဆွေးနွေးတိုင်ပင်မှုတို့အပေါ် အခြေခံပြီး ဆောင်ရွက်သွားမည် ဖြစ်သည်။ • IEEအစီရင်ခံစာတွင် စက်ရုံအတွင်း ဘေးအန္တရာယ်ကင်းရှင်းရေး စီမံခန့်ခွဲမှုများကို လိုက်နာရန်အတွက် ထည့်သွင်းဖော်ပြထားပါသည်။ 	အခန်း (၇)
လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်များ	၇.၁	<ul style="list-style-type: none"> • လေညစ်ညမ်းမှုများကိုထိန်းချုပ်ခြင်း၊ ယာဉ်များ၊ မီးစက်များ၊ စက်ပစ္စည်းများကို ပုံမှန်စစ်ဆေးခြင်း။ • ယာဉ်များ၊ ကွန်ပရက်ဆာ၊ မီးစက်များကို ကောင်းမွန်စွာထိန်းသိမ်းခြင်း။ 	အပိုဒ်ခွဲ (၇.၄.၁)
ရေအသုံးပြုမှု	၇.၂	<ul style="list-style-type: none"> • ရေသုံးစွဲမှုကို ထိန်းချုပ်ရန်အတွက် ရေမီတာတပ်ဆင်ထားခြင်း • ဝန်ထမ်းများအတွက် အိမ်သာနှင့် အခြားရေသုံးစွဲသည့် လုပ်ငန်းစဉ်များတွင် ရေသုံးစွဲမှုနှင့် ပတ်သက်၍ သတိပေးဆိုင်းဘုတ်များ ထားရှိခြင်း၊ အလေ့အကျင့်ကောင်းများ သင်ကြားပေးခြင်း ပြုလုပ်ခြင်း • ရေညစ်ညမ်းမှုကို ရှောင်ရှားနိုင်ရန်အတွက် စက်များနှင့် မော်တော် ယာဉ်များတွင် အသုံးပြုသည့် လောင်စာဆီများကို သင့်တော်ကောင်းမွန်အောင် စီမံဆောင်ရွက်ခြင်း 	အပိုဒ်ခွဲ (၇.၄.၂)

		<ul style="list-style-type: none"> • စက်ရုံပတ်ဝန်းကျင်တွင် သစ်ပင်များ စိုက်ပျိုးထားရှိခြင်း 	
အနံ့ထွက်ရှိမှု	၇.၃	<ul style="list-style-type: none"> • အနံ့ထွက်ရှိမှုရှိသော လုပ်ငန်းစဉ်များတွင် အလုပ်လုပ်သည့် ဝန်ထမ်းများ အား လုံလောက်သော တစ်ကိုယ်ရေသုံး ကာကွယ်ရေးကိရိယာများ ထားရှိပေးခြင်း • လုပ်ငန်းခွင်အတွင်း ကောင်းမွန်သော လေဝင်လေထွက်စနစ် တပ်ဆင်ပေးခြင်း 	အပိုဒ်ခွဲ (၇.၄.၃)
ရေဆိုးစွန့်ပစ်မှု	၇.၄	<ul style="list-style-type: none"> • ရေနုတ်မြောင်းလိုင်းကို သင့်တော်သော အကျယ်၊ အနက်ရှိစေပြီး မိလ္လာစနစ်သည် ရေလုံပြီး စနစ်တကျ သိုလှောင်နိုင်ခြင်း • မိလ္လာပိုက်လိုင်းကို အမြဲစစ်ဆေးခြင်းနှင့် ထိန်းသိမ်းခြင်း • ရေနုတ်မြောင်းကို အနံ့အသက်များ ကင်းစေရန် အမှိုက်များ ပိတ်ဆို့စေခြင်း မရှိအောင် ဆောင်ရွက်ခြင်း 	အပိုဒ်ခွဲ (၇.၄.၄)
ဆူညံသံ	၇.၅	<ul style="list-style-type: none"> • အသံလုံအခန်းများတည်ဆောက်ပြီး စက်ပစ္စည်းများကို သေချာစွာ ပြုပြင်ထိန်းသိမ်းစေခြင်း • သယ်ယူပို့ဆောင်ရေးလမ်းကြောင်းတွင် ယာဉ်များ၏ အမြန်နှုန်းကို ကန့်သတ်ခြင်း • လုံလောက်သော တစ်ကိုယ်ရည်သုံး အကာအကွယ်ပစ္စည်းများ ထားရှိပေးခြင်း • သက်ဆိုင်ရာ ဝန်ထမ်းများအားလုံးကို သင့်လျော်သော သင်တန်းများ ပို့ချခြင်း နှင့် ဆူညံသော နေရာတွင် အလုပ်လုပ်စဉ် တစ်ကိုယ်ရည်သုံး အကာအကွယ်များ တပ်ဆင်စေခြင်း 	အပိုဒ်ခွဲ (၇.၄.၅)

အစိုင်အခဲစွန့်ပစ်ပစ္စည်း	၇.၆	<ul style="list-style-type: none"> စီမံကိန်းမှ ထွက်ရှိသော စွန့်ပစ်အမှိုက်များကို စက်ရုံဝင်းအတွင်း (သို့မဟုတ်) ဒေသရှိ အင်းအိုင်၊ ချောင်း၊ မြောင်း၊ မြစ် စသည်တို့ထဲသို့ စွန့်ပစ်ခြင်း မပြုလုပ်ပါ။ စွန့်ပစ်အမှိုက်များကို တစ်နေရာတည်းတွင် စနစ်တကျခွဲ၍ စုဆောင်းရန် လိုအပ်ပြီး အထည်အလိပ် စွန့်ပစ်အမှိုက်များကို သီးခြား သိုလှောင် သိမ်းဆည်းခြင်း၊ အန္တရာယ်ရှိသော စွန့်ပစ်ပစ္စည်းများနှင့် တခြားသော သတ္တုပစ္စည်းများကို သီးခြား သိုလှောင်သိမ်းဆည်းခြင်း 	အပိုဒ်ခွဲ (၇.၄.၆)
မီးဘေးအန္တရာယ်	၇.၇	<ul style="list-style-type: none"> စက်ရုံ၏မီးဘေးအန္တရာယ်ကာကွယ်ရန်အတွက် မီးသတ်ဗူး၊ မီးသတ် ပိုက်၊ မီးသတ်ခေါင်းများ ထားရှိခြင်း။ မီးသတ်ဆိုင်ရာစက်ပစ္စည်းများ၊ ကိရိယာများကို ပုံမှန်စစ်ဆေးခြင်း။ အရေးပေါ်အခြေအနေအတွက် မီးသတ်ရေကန်အဆင်သင့် ထားရှိ ခြင်း။ စက်ရုံအတွင်း အရေးပေါ်အချက်ပေးစနစ်ထားရှိခြင်း။ အရေးပေါ်ထွက်ပေါက်များ တစ်လျှောက်တွင် ကုန်ပစ္စည်းများ ပိတ်ဆို့ခြင်း မရှိအောင် ရှင်းလင်းထားခြင်း။ 	အပိုဒ်ခွဲ (၇.၄.၇)
လုပ်ငန်းခွင်ဘေးကင်းရေးနှင့် ကျန်းမာရေး	၇.၈	<ul style="list-style-type: none"> ရှေးဦးပြုစုနည်း သင်တန်းများ၊ ဘေးအန္တရာယ် ကင်းရှင်းရေး လေ့ကျင့်မှု၊ မီးငြိမ်းသတ်နည်းသင်တန်းများ၊ အခြားလိုအပ်သော လေ့ကျင့်မှုများ၊ စက်ပစ္စည်းများကို စနစ်တကျကိုင်တွယ်မှုများအား သင်တန်းပေးခြင်း။ လုပ်ငန်းခွင်အတွင်း အလုပ်သမားများ အလင်းရောင်ကောင်းစွာရရှိ စေရန် နှင့် အမြင်အာရုံမထိခိုက်စေရန် တကိုယ်ရည်ကာကွယ်ရေးသုံးပစ္စည်းများ ဖြစ်သည့် နားကြပ်၊ လက်အိတ်၊ ဦးထုပ်၊ မျက်မှန်များ အသုံးပြုစေခြင်း။ လျှပ်စစ်အန္တရာယ် မဖြစ်စေရန်နှင့် ပြုပြင်ထိန်းသိမ်းမှုများ ပြုလုပ်ရန် အတွက် ဝန်ထမ်းများထားရှိ၍ ပုံမှန်စစ်ဆေးခြင်း။ 	အပိုဒ်ခွဲ (၇.၄.၈)

		<ul style="list-style-type: none"> ဝန်ထမ်းများ၏ကျန်းမာရေးတွက် စက်ရုံတွင် စီမံခန့်ခွဲခြင်း လုပ်သားများ အတွက် ၈နာရီအတွင်း လက်ခံနိုင်သည့် အမြင့်ဆုံး ဆူညံမှုနှုန်းမှာ ၉၀ dB(A) ဖြစ်သည် ထို့ကြောင့် အသံဆူညံသည့် နေရာများတွင် အသံလုံသည့် နားကြပ်များ၊ နားအကာအကွယ် ပစ္စည်းများ တပ်ဆင်စေခြင်း။ 	
စွမ်းအင်	၇.၉	<ul style="list-style-type: none"> အပူအအေးအလိုအလျောက်ညွှန်ပြရာ ကိရိယာနှင့် အချိန်အတိုင်းကိရိယာ များ တပ်ဆင်ခြင်း စက်ရုံ၏နေရာအမျိုးမျိုးတွင် စွမ်းအင်ချွေတာသော လျှပ်စစ်မီးများ တပ်ဆင်ခြင်း စွမ်းအင်ချွေတာသော စက်ပစ္စည်းများကို တပ်ဆင်ရမည် 	အပိုဒ်ခွဲ (၇.၄.၉)
အရေးပေါ်တုံ့ပြန်ရေးနှင့် သဘာဝဘေး	၇.၁၀	<ul style="list-style-type: none"> စက်ရုံအနေဖြင့် အရေးပေါ်ဖြစ်ပေါ်လာနိုင်သော မီးဘေးအန္တရာယ်၊ ငလျင်၊ ရေကြီးခြင်းနှင့် မုန်တိုင်းများအတွက် စီမံထားရှိခြင်း မီးသတ်ပစ္စည်းကိရိယာများနှင့် မီးသတ်ဆေးဘူးများကို နေရာတိုင်းတွင် တပ်ဆင်ထားခြင်းနှင့် စစ်ဆေးခြင်း အသေးစိတ်အခြေအနေပြ ရုပ်ပုံ(အရေးပေါ်ထွက်ပေါက်တံခါး စသည်) ကို အလုပ်သမားများ သိရှိစေရန် ဆောင်ရွက်ထားခြင်း ရေပိုက်ခေါင်း၊ မီးသတ်ဘူး စသည်တို့ကို ထားရှိခြင်း၊ စစ်ဆေးခြင်းနှင့် ဓာတ်လိုက်ခြင်းမှ ကာကွယ်ရန် လျှပ်စစ်အန္တရာယ် အသိပေး သင်တန်းများ ပို့ချခြင်း အလုပ်သမားများအား ငလျင်လှုပ်သောအခါ စားပွဲအောက်ကဲ့သို့သော ဘေးကင်းသောနေရာများတွင် နေထိုင်ရန်၊ အပြင်သို့ မရွှေ့ရန်၊ အပြင်တွင် ရှိနေသော အလုပ်သမားများအနေဖြင့် အဆောက်အဦအောက်၊ သစ်ပင် 	အပိုဒ်ခွဲ (၇.၄.၁၀)

		<p>အောက်၊ တိုင်များအောက်တွင် နေထိုင်ခြင်းမပြုဘဲ ကွင်းပြင်တွင်သာ နေထိုင်ရန်၊ တခြားသော သက်ဆိုင်ရာ ဘေးကင်းလုံခြုံရေး လမ်းညွှန်ချက် များကို အသိပညာပေးခြင်း</p> <ul style="list-style-type: none"> • ရေလွှမ်းမိုးမှု (မုန်တိုင်းအပျက်အစီးများ၊ ရေမြောင်းများ ပွင့်နေခြင်း၊ မြေတိုက်စားမှု) နှင့် ရွှေ့ပြောင်းတွားသွားသတ္တဝါများ (မြွေ သို့မဟုတ် တခြားတိရိစ္ဆာန်များ) ၏ အန္တရာယ်များကို သတိပြုစေခြင်း • အရေးပေါ်ဆေးအဖွဲ့များနှင့် ဆေးပစ္စည်းများ ထားရှိခြင်း • အရေးပေါ်ဆက်သွယ်နိုင်သည့် မီးသတ်ဌာန၊ ရဲတပ်ဖွဲ့၊ ဆေးရုံ စသည့် တယ်လီဖုန်းနံပါတ်များကို မြင်သာနိုင်သည့်နေရာတွင် ကပ်ထားခြင်း • မီးငြိမ်းသတ်ရေးအဖွဲ့၊ ကယ်ဆယ်ရေးအဖွဲ့တို့ဖြင့် ဘေးကင်းရေးကော်မတီ တစ်ရပ် တည်ဆောက်ခြင်းနှင့် ကော်မတီအနေဖြင့် ဘေးအန္တရာယ် ကင်းရှင်းရေးဆိုင်ရာ စီမံခန့်ခွဲမှုနှင့် ပတ်သတ်၍ လစဉ်အစည်းအဝေး ကျင်းပခြင်း • သဘာဝဘေးအန္တရာယ်စီမံခန့်ခွဲရေး၊ မီးဘေးအန္တရာယ်နှင့် လုပ်ငန်းခွင် ထိခိုက်မှုနှင့် ကျန်းမာရေး ကာကွယ်ရေးအတွက် သင့်လျော်သော သင်တန်း များပို့ချခြင်း 	
ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုမှု အချိန်ဇယားနှင့် တင်ပြအစီရင်ခံခြင်း	၇.၁၁	<ul style="list-style-type: none"> • ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား စောင့်ကြပ်ကြည့်ရှုမည့် အချိန် ဇယား၊ တာဝန်ယူမည့် ပုဂ္ဂိုလ်များနှင့် တင်ပြအစီရင်ခံမည့် အစီအစဉ် များအား ဖော်ပြထားရှိပါသည်။ 	အပိုဒ် (၇.၅)

		<ul style="list-style-type: none"> ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား စောင့်ကြပ်ကြည့်ရှုရန် အတွက် ကုန်ကျမည့် လျာထားကုန်ကျစရိတ်များအား ထည့်သွင်း ဖော်ပြထားပါသည်။ 	
စွမ်းဆောင်ရည်မြှင့်တင်ရေးနှင့် လေ့ကျင့်ရေး	၇.၁၂	<ul style="list-style-type: none"> ဝန်ထမ်းများအား အရေးပေါ်အခြေအနေ၊ ကျန်းမာရေးအခြေအနေ၊ မီးဘေးအန္တရာယ်များ ဖြစ်ပေါ်လာပါက ထိန်းချုပ်ဖြေရှင်းနိုင်ရန် လိုအပ်သည့် သင်တန်းများ ပို့ချထားရှိခြင်း 	အပိုဒ် (၇.၇)
မကျေနပ်မှုများဆိုင်ရာ ဖြေရှင်းမှု နည်းလမ်း	၇.၁၃	<ul style="list-style-type: none"> ဒေသခံပြည်သူများ၏ စီမံကိန်းနှင့် ပတ်သက်၍ မကျေနပ်မှုများ၊ ပြဿနာများအား ဖြေရှင်းရန်အတွက် စက်ရုံ၏ ကော်မတီ၊ အစိုးရ ဌာန၊ စက်မှုဇုန်တာဝန်ရှိသူများနှင့် ပူးပေါင်းဖြေရှင်းသွားပါမည်။ 	အပိုဒ် (၇.၈)
လူမှုရေးဆိုင်ရာ တာဝန်ယူဆောင်ရွက်မှု	၇.၁၄	<ul style="list-style-type: none"> လူထုအကျိုးပြုဆောင်ရွက်ချက်များကို လူနေမှုအဆင့်အတန်း မြှင့်မားစေရန်နှင့် စီမံကိန်းဧရိယာရှိ လူနေမှုအသိုင်းအဝိုင်းများ အားလုံးနှင့် အဆင်ပြေစေရန် ရည်ရွယ်ပါသည်။ B.C.C JEWELRY MFG. COMPANY LIMITED ၏ လူထုအကျိုးပြု ဆောင်ရွက်ချက် များအနေဖြင့် ဒေသအတွင်း ပညာရေး အထောက်အပံ့များ ဆောင်ရွက်ခြင်း၊ ကျန်းမာရေး စောင့်ရှောက်မှုများ ဆောင်ရွက်ခြင်း၊ ဘာသာရေးဆိုင်ရာ အထောက်အကူများပေးခြင်း၊ ပတ်ဝန်းကျင်နှင့် သက်ဆိုင်သော ကဏ္ဍများတွင် ထောက်ပံ့ပေးခြင်းနှင့် လူမှုရေးကိစ္စရပ်များတွင် ပါဝင်ကူညီခြင်းဟူ၍ ကဏ္ဍငါးခု အလိုက် ဆောင်ရွက်ပါမည်။ 	အပိုဒ် (၇.၉)
အများပြည်သူနှင့် တိုင်ပင်ဆွေးနွေးခြင်း	၈	<ul style="list-style-type: none"> B.C.C JEWELRY MFG. COMPANY LIMITED၏ အစည်းအဝေးခန်းမတွင် အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်းလုပ်ငန်းစဉ်အား ဆောင်ရွက်ခဲ့ပြီး ဆွေးနွေးတင်ပြလာသည့် အကြံပြုချက်များအတိုင်း လိုက်နာဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။ 	အပိုဒ် (၈.၂)
နိဂုံးနှင့်အကြံပြုချက်	၉	<ul style="list-style-type: none"> B.C.C JEWELRY MFG. COMPANY LIMITED သည် Artificial Jewelry အမျိုးမျိုး ထုတ်လုပ်ရောင်းချခြင်းဖြစ်ပါသည်။ စီမံကိန်းမှရရှိသော အကျိုး 	အပိုဒ် (၉.၁)

		<p>အမြတ်၏ ၂% ကို CSR အစီအစဉ်ဖြင့် ဒေသအကျိုးပြု လုပ်ငန်းများကို ထောက်ပံ့သွားမည် ဖြစ်ပါသည်။ စီမံကိန်းလည်ပတ်နေစဉ်နှင့် ပိတ်သိမ်းမည့်ကာလအတွက် နေ့စဉ်၊ လစဉ်၊ နှစ်စဉ် ရေးဆွဲမည့် အစီအစဉ်များသည် လုပ်ထုံးလုပ်နည်း၊ စည်းမျဉ်း၊ စည်းကမ်းများနှင့် အညီရေးဆွဲသွားမည် ဖြစ်ပါသည်။</p>	
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Daw Khaing Thet Mon
Director
B.C.C. Jewelry Mfg. Company Limited