

SHWE TAUNG CEMENT COMPANY LIMITED
BIANNUAL ENVIRONMENTAL MONITORING REPORT
(July 2023 to December 2023)

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၁.၁ အကျဉ်းချုပ်အစီရင်ခံစာ

ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက် (STC) သည် မြန်မာနိုင်ငံရှိ စီးပွားရေးကဏ္ဍအသီးသီးတွင် လုပ်ငန်းမျိုးစုံကို လုပ်ကိုင်ဆောင်ရွက်နေသော ရွှေတောင်ကုမ္ပဏီအုပ်စု၏ လုပ်ငန်းတစ်ခုဖြစ်ပြီး မန္တလေးတိုင်းဒေသကြီး သာစည်မြို့နယ်၊ ပြည်ညောင်ကျေးရွာရှိ ဘိလပ်မြေစက်ရုံ စီမံကိန်းသည် STC ၏ clinker ထုတ်လုပ်မှုစွမ်းရည်ကို တစ်ရက်လျှင် တန်ချိန် ၁,၅၀၀ မှ တန် ၅,၅၀၀ နှင့် ဘိလပ်မြေပမာဏ တစ်နေ့လျှင် ၂,၈၀၀ တန် မှ ၇,၂၀၀ တန် အထိ တိုးချဲ့ရန် ရည်ရွယ်ပါသည်။ စီမံကိန်း၏တည်နေရာကို ပုံ (၁) တွင် ဖော်ပြထားပါသည်။ ဒုတိယလှိုင်းတည်ဆောက်မှုမှာ ၂၀၁၉ ဒီဇင်ဘာလတွင်း ပြီးစီး၍ ၂၀၂၀ ဇန်နဝါရီလတွင် စတင်ထုတ်လုပ်ခဲ့ပါသည်။

STC သည် ဘိလပ်မြေစက်ရုံတိုးချဲ့စီမံကိန်းအတွက် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (EIA) ကို ဆောင်ရွက်ရန်အတွက် Environmental Resources Management (ERM)-Hong Kong, Limited အား တာဝန်ပေးအပ်ခဲ့ပါသည်။

ဘိလပ်မြေစက်ရုံ ဧရိယာသည် ၂၀၁၆ ခုနှစ် မတ်လ ၃၁ ရက်နေ့တွင် သစ်တောဦးစီးဌာနမှ နှစ် ၅၀ သဘောတူညီချက်အရ ငှားရမ်းထားသော ဧက ၄၀၀ အတွင်း တည်ရှိပြီး ဘိလပ်မြေစက်ရုံ ပထမလှိုင်းမှ အသုံးပြုသည့် ၄၅ ဧက အပါအဝင် ဒုတိယလှိုင်းမှ ၁၅ ဧက၊ ရေအရင်းအမြစ် ဧက ၅၀၊ ဝန်ထမ်းအိမ်ရာနှင့် စားသောက်ဆောင်အတွက် (၈) ဧက ခွဲဝေပေးထားပြီး ကျန် ၂၈၂ ဧကကို လမ်းပန်းဆက်သွယ်ရေးနှင့် သစ်ပင်စိုက်ပျိုးခြင်းအတွက် အသုံးပြုပါသည်။ ၂၀၁၆ ခုနှစ် မတ်လ ၃၁ ရက်နေ့တွင် သစ်တောဦးစီးဌာနမှ နှစ် ၅၀ သဘောတူညီချက်အရ ငှားရမ်းထားသော (၅၅) ဧကကို ဝန်ထမ်းများ၏ မိသားစုအိမ်ယာနှင့် အပန်းဖြေနေရာများအတွက် ခွဲဝေပေးထားပါသည်။

မန္တလေးတိုင်းဒေသကြီး သာစည်မြို့နယ် ကူပြင်ကျေးရွာတွင် တည်ရှိသော ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက်၏ ဘိလပ်မြေ ၂၈၀၀ တန်မှ ၇၂၀၀ တန်အထိ တိုးချဲ့ထုတ်လုပ်မည့် စီမံကိန်းအတွက် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာသည် ၂၀၁၉ ခုနှစ်၊ ဒီဇင်ဘာလ၊ ၅ ရက်နေ့တွင် ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်၊ သယံဇာတနှင့်သဘာဝ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC) ၏ အတည်ပြုချက် ရရှိထားပြီး ဖြစ်ပါသည်။ သို့ဖြစ်ပါ၍ STC သည် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းအစီရင်ခံစာတွင် ဖော်ပြထားသော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) နှင့်အညီ ပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးမှုကိစ္စရပ်များ (Environmental & Social Monitoring Program) ကို လိုက်နာဆောင်ရွက်ခဲ့ပြီး ယခုအခါတွင် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေနှင့် နည်းဥပဒေများ၊ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာနမှ ချမှတ်ထားသော လုပ်ထုံးလုပ်နည်းများအတိုင်း ၂၀၂၃ ခုနှစ် ဇူလိုင်လမှ ၂၀၂၃ ခုနှစ် ဒီဇင်ဘာလအထိ ဆောင်ရွက်ခဲ့သော ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုစစ်ဆေးခြင်းအစီရင်ခံစာကို တင်ပြခြင်းဖြစ်ပါသည်။

၁.၂ ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုခြင်း၏ ရည်ရွယ်ချက်

ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုခြင်းသည် ရွှေတောင်ဘီလပ်မြေစက်ရုံ၏ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း အစီရင်ခံစာတွင် ဖော်ပြထားသော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်များအတွင်း ပါရှိသော စီမံခန့်ခွဲမှုနှင့်လျော့ပါးရေး အစီအမံများ၏ ထိရောက်မှုကို အတည်ပြုနိုင်သော နည်းလမ်းတစ်ခု ဖြစ်ပါသည်။

(၁) ရွှေတောင်ဘီလပ်မြေစက်ရုံမှ ကျန်းမာရေး၊ လူမှုရေးနှင့် ပတ်ဝန်းကျင်ဌာန (HSE Department) ရှိ ပတ်ဝန်းကျင်ဆိုင်ရာ အင်ဂျင်နီယာများသည် အောက်ပါအတိုင်း ဆောင်ရွက်ရမည်။

- ပတ်ဝန်းကျင်နှင့်လူမှုရေးရာစီမံခန့်ခွဲမှုအစီအစဉ်များအတိုင်း လက်တွေ့အကောင်အထည်ဖော် လိုက်နာဆောင်ရွက်ရန်။
- ပတ်ဝန်းကျင်ဆိုင်ရာ စစ်ဆေးမှုများကို Checklist များဖြင့် လစဉ်ဆောင်ရွက်ရန်။
- ဓာတ်ခွဲခန်းတွင် ရေနမူနာနှင့် စမ်းသပ်မှုနည်းလမ်းများ လုပ်ဆောင်နေချိန်အတွင်း စောင့်ကြပ်ကြည့်ရှု စစ်ဆေးရန်။
- စွန့်ပစ်ပစ္စည်းစီမံခန့်ခွဲမှုကို အကောင်အထည်ဖော်ရာတွင် ကူညီစောင့်ကြပ်ကြည့်ရှုခြင်းနှင့်
- လေထုအရည်အသွေးစမ်းသပ်မှုရလဒ်များကို စောင့်ကြပ်ကြည့်ရှုခြင်းနှင့် လမ်းညွှန်ချက်များအတိုင်း လိုက်နာဆောင်ရွက်မှု ရှိမရှိ ပြန်လည်သုံးသပ်ရန်။

(၂) ပြန်လည်ပြင်ဆင်ရန်လိုအပ်သော တွေ့ရှိချက်များအားလုံးကို Environmental and Social tracker တွင် မှတ်တမ်းတင်ထားမည်ဖြစ်ပြီး ပြန်လည်ပြင်ဆင်ရန်အတွက် Environmental Manager မှ သက်ဆိုင်ရာဌာန အကြီးအကဲများထံသို့ အကြောင်းကြားမည်ဖြစ်သည်။

(၃) ပတ်ဝန်းကျင်အရည်အသွေး (ရေထု၊ စွန့်ပစ်ရေနှင့် လေထု) စမ်းသပ်မှုရလဒ်များအားလုံးကို Environmental Manager မှ ပြန်လည်သုံးသပ်ခွဲခြမ်းစိတ်ဖြာရန်အတွက် စုစည်း၍ HSE ဌာနမှူးမှ အတည်ပြုမည် ဖြစ်သည်။

(၄) စွန့်ပစ်ပစ္စည်းအမျိုးအစားခွဲခြားခြင်းနှင့် နောက်ဆုံးစွန့်ပစ်မှုအစွန့်ပစ်အမှိုက်အားလုံးကို လစဉ်အစီရင်ခံစာအတွက် စွန့်ပစ်ပစ္စည်းစီမံခန့်ခွဲမှု matrix ထဲသို့ ထည့်သွင်းဖော်ပြသွားမည်ဖြစ်ပါသည်။

(၅) ပတ်ဝန်းကျင်ဆိုင်ရာ အမှုဆောင် (Environmental Executive) သည် စီမံကိန်းဧရိယာအတွင်း အကောင်အထည်ဖော်ခြင်း စောင့်ကြပ်ကြည့်ရှုခြင်း၊ ရောဂါပိုးအသစ်များကျရောက်ခြင်းနှင့် ဇီဝမျိုးစုံမျိုးကွဲဆိုင်ရာ ဆောင်ရွက်မှုအစီအစဉ် (BAP) အတိုင်း အကောင်အထည်ဖော်ဆောင်ရွက်ရမည်ဖြစ်သည်။

၁.၃ ကျန်းမာရေး၊ လူမှုရေးနှင့် ပတ်ဝန်းကျင် (HSE) ဌာန

ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီရှိ HSE ဌာန၏ တာဝန်များမှာ အောက်ပါအတိုင်းဖြစ်သည်။

- (၁) ရွှေတောင်ဘိလပ်မြေစက်ရုံ၏ အတည်ပြုထားသော ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းအစီရင်ခံစာ၏ ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်များကို အကောင်အထည်ဖော်ရန်၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ စည်းမျဉ်းစည်းကမ်းများကို လိုက်နာဆောင်ရွက်ရန်၊ ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုခြင်း အစီရင်ခံစာ ရေးသားပြုစုရန်။
- (၂) ပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုခြင်းအစီအစဉ်အတွက် တတိယအဖွဲ့အစည်းများ၊ ကန်ထရိုက်တာများနှင့် အခြားအဖွဲ့အစည်းများအား ကြီးကြပ်ရန်။
- (၃) ပတ်ဝန်းကျင်ထိခိုက်မှုကို စောင့်ကြည့်လေ့လာပြီး သက်ဆိုင်ရာစာရွက်စာတမ်းများကို အစီရင်ခံစာတင်ပြရန်။
- (၄) သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ အသိပညာများ မျှဝေခြင်းနှင့် သင်တန်းပေးခြင်းများ ပြုလုပ်ခြင်းဖြင့် ဝန်ထမ်းများ၏ စွမ်းဆောင်ရည်ကို မြှင့်တင်ရန်။

၁.၄ ပတ်ဝန်းကျင်ဆိုင်ရာ စွမ်းဆောင်ရည် အညွှန်းကိန်းများနှင့် စောင့်ကြပ်ကြည့်ရှုခြင်း အချိန်ဇယား

ရုပ်ပိုင်းဆိုင်ရာ၊ ဇီဝဗေဒနှင့် လူမှုပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစိတ်အပိုင်းများကို စွမ်းဆောင်ရည်ညွှန်းကိန်းများအဖြစ် ခွဲခြားသတ်မှတ်ထားပါသည်။ စွမ်းဆောင်ရည်ညွှန်းကိန်းတစ်ခုစီအတွက် ပြီးပြည့်စုံသော စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်အား စီမံကိန်းအဆင့်အားလုံးအတွက် ပြင်ဆင်ထားပြီး ဇယား ၁ တွင်ဖော်ပြထားပါသည်။

ထိုဇယားတွင် တိုင်းတာရမည့် သတ်မှတ်ချက်များ၊ အသုံးပြုရမည့် နည်းလမ်းများ၊ နမူနာကောက်ယူရမည့် တည်နေရာများ၊ တိုင်းတာမှု အကြိမ်ရေ၊ ဖော်ထုတ်မှု ကန့်သတ်ချက်များ၊ အကောင်အထည်ဖော်မှုနှင့် ကြီးကြပ်မှုအတွက် တာဝန်ဝတ္တရားများ ပါဝင်သည်။

စီမံကိန်း၏ ကျန်ရှိနေသော အကျိုးသက်ရောက်မှုများ၏ ခန့်မှန်းအဆင့်များ၊ စီမံခန့်ခွဲမှုအစီအစဉ်များနှင့် လျော့ပါးရေး အစီအမံများ၏ ထိရောက်မှုများကို အတည်ပြုနိုင်ရန် သက်ရောက်မှုစောင့်ကြပ်ကြည့်ရှုခြင်းကို စီမံကိန်းကာလအတွင်း ဆောင်ရွက်မည်ဖြစ်ပါသည်။

ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီသည် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းလုပ်ထုံးလုပ်နည်းပါ သတ်မှတ်ချက်များအရ (၆)လလျှင် တစ်ကြိမ် သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC) သို့ တင်ပြနိုင်ရန် ပတ်ဝန်းကျင် စောင့်ကြပ်ကြည့်ရှုမှုအစီရင်ခံစာကို ပြင်ဆင်ရမည်ဖြစ်သည်။

ဇယား ၁ - ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုခြင်းအစီအစဉ်

စဉ်	စီမံကိန်းအဆင့်	သက်ရောက်နိုင်မှုများ	စောင့်ကြပ်ကြည့်ရှုရန် သတ်မှတ်ချက်များ	တည်နေရာ	တိုင်းတာမှုများ	လုပ်ငန်းစဉ်	အကြိမ်ရေ	လုပ်ငန်းလည်ပတ်မှု တာဝန်များ	ပတ်ဝန်းကျင်ဆိုင်ရာ တာဝန်များ
၁	ဆောက်လုပ်ရေး နှင့် လုပ်ငန်း လည်ပတ်သော အဆင့်	လျော့ပါးစေရေး လိုက်နာဆောင်ရွက် မှုများကို စစ်ဆေးခြင်း	တင်ပြထားသော လျော့ပါးစေရေးအစီအမံများ၏ လိုက်နာဆောင်ရွက်မှု	စီမံကိန်းလုပ်ငန်းဧရိယာ	လုပ်ဆောင်နေသော လုပ်ငန်းများကို သွားရောက် စစ်ဆေးခြင်း၏နှင့် မှတ်တမ်းများကို စစ်ဆေးခြင်း	1. နေ့စဉ်နှင့် အပတ်စဉ် inspection Checklist 2. WMP Inspection Checklist	အပတ်စဉ်	STC Operation Team	Environmental Engineers
၂	လုပ်ငန်း လည်ပတ်သော အဆင့်	မီးခိုးခေါင်းတိုင်မှ ထုတ်လွှတ်ခြင်း	NO _x , SO ₂ , PM _{2.5} , PM ₁₀ and O ₂	လှိုင်း ၂ လှိုင်း ၏ မီးခိုးခေါင်းတိုင်မှ ထုတ်လွှတ်ခြင်း	အချိန်နှင့်တပြေးညီ စောင့်ကြည့်ရေးစနစ်	အချိန်နှင့်တပြေးညီစောင့် ကြည့်ခြင်းမှ ရလဒ်များ	စဉ်ဆက်မပြတ် စောင့်ကြပ် ကြည့်ရှုခြင်း	STC Operation/ Control room	Environmental Engineers
၃	လုပ်ငန်း လည်ပတ်သော အဆင့်	မီးခိုးခေါင်းတိုင်မှ ထုတ်လွှတ်ခြင်း	ဘီလပ်မြေနှင့် ထုံးကျောက် ထုတ်လုပ်ခြင်း (NOx၊ SO2၊ PM2.5၊ PM10) အတွက် Myanmar National Environmental Quality (Emission) Guidelines (2015) နှင့် ကိုက်ညီမှုရှိမရှိ စစ်ဆေးရန်	လှိုင်း ၂ လှိုင်း ၏ မီးခိုးခေါင်းတိုင်မှ ထုတ်လွှတ်ခြင်း	စံခွဲခြမ်းစိတ်ဖြာ ခြင်း နည်းလမ်းများ	ECD ၏ စောင့်ကြပ်ကြည့်ရှုခြင်း အစီရင်ခံစာမှ ရလဒ်များ	လစဉ်	STC Operation/ Control room	Environmental Engineers
၄	လုပ်ငန်း လည်ပတ်သော အဆင့်	အမှန်ထွက်ရှိခြင်း	အမှန်ထွက်ရှိမှုအား တိုင်းတာခြင်း	စက်ရုံဝင်းအတွင်း၊ ကျွဲပြင်ကျေးရွာနှင့် ပြည်ညောင်ကျေးရွာ	အမှန်ထွက်ရှိမှုအား တိုင်းတာသော ကိရိယာ	နမူနာကောက်ယူမှုများ၏ STC ဓာတ်ခွဲခန်းမှ ရလဒ်များ	လစဉ်	STC Laboratory	Environmental Engineers
၅	လုပ်ငန်း လည်ပတ်သော အဆင့်	သန့်စင်ပြီး ရေဆိုးများကို စွန့်ထုတ်ခြင်း	ဆိုက်ထဲမှ စီးဆင်းနေမှုများနှင့် ရေဆိုးထုတ်လွှတ်ခြင်းများအ တွက် National EQEG (2015) အတိုင်း လိုက်နာဆောင်ရွက် ခြင်း ရှိမရှိ စစ်ဆေးရန် (BOD၊ COD၊ TSS၊ Oil and Grease၊ pH total coliform bacterial total nitrogen, total phosphorus)	၁. ကျောက်မီးသွေး သိုလှောင်ဧရိယာနှင့် ပစ္စည်းများ ကိုင်တွယ် သည့် နေရာများ ၂. ဆီသိုလှောင်ခြံ ၃. ရေဆိုးသန့်စင်သည့် နေရာနှင့် ၄. ရေလှောင်ကန်များမှ စွန့်ပစ်ရေဆိုးများ သန့်စင်သည့် နေရာများ	စံခွဲခြမ်းစိတ်ဖြာ ခြင်း နည်းလမ်းများ	နမူနာကောက်ယူမှုများအ တွက် STC ဓာတ်ခွဲခန်းမှ ရလဒ်များ	လစဉ်	STC Laboratory	Environmental Engineers
၆	လုပ်ငန်း လည်ပတ်သော အဆင့်	သန့်စင်ပြီး ရေဆိုးများနှင့် စီးဆင်းရေများကို စွန့်ထုတ်ခြင်း	National EQEG (2015) အတိုင်း လိုက်နာဆောင်ရွက် ခြင်း ရှိမရှိ စစ်ဆေးရန်	ဘီလပ်မြေထုတ်လုပ် ခြင်းလုပ်ငန်းစဉ်မှ စက်မှုလုပ်ငန်းသုံး ရေဆိုးစွန့်ထုတ်သည့် နေရာ	စံခွဲခြမ်းစိတ်ဖြာ ခြင်း နည်းလမ်းများ	နမူနာကောက်ယူမှုများ အတွက် ရွှေတောင် ဓာတ်ခွဲခန်း ရလဒ် များနှင့် ECD monitoring result များကို နှိုင်းယှဉ်ခြင်း	လစဉ်	STC Laboratory	Environmental Engineers
၇	စီမံမျိုးစုံမျိုးကွဲ	ကျက်စားရာ ဒေသ	စီမံကိန်းဧရိယာအတွင်းရှိ ကျေးကျွဲမျိုးစိတ်များကို နှစ်စဉ်စောင့်ကြည့်လေ့လာ ရန်နှင့် ရောဂါပိုးအသစ်များကို ဖော်ထုတ်ထိန်းချုပ်နိုင်ရန်	စီမံကိန်းလုပ်ငန်းဧရိယာ	လုပ်ဆောင်နေသော လုပ်ငန်းများကို သွားရောက် စစ်ဆေးခြင်း၏နှင့် မှတ်တမ်းများကို စစ်ဆေးခြင်း	သွားရောက်စစ်ဆေးခြင်း နှင့် Camera Trap များ တပ်ဆင်ခြင်း	လစဉ်	Security / Social community	Environmental Engineers
၈	လေထုအရည် အသွေး	ဘီလပ်မြေစက်ရုံ ၏ မီးခိုး ခေါင်းတိုင်မှ ထုတ်လွှတ်ခြင်း	အခန်းတွင်း လေထုအရည် အသွေးကို စောင့်ကြပ်ရန် အလုပ်သမားများအတွက် လုပ်ငန်းခွင်ထိတွေ့မှု စောင့်ကြပ်ကြည့်ရှုရေးအစီ အစဉ်ကို ထည့်သွင်းထားရန်	ရုံးဧရိယာအတွင်း	စံခွဲခြမ်းစိတ်ဖြာ ခြင်း နည်းလမ်းများ	ရုံးခန်းများအတွင်းရှိ ပတ်ဝန်းကျင်လေထုကို စောင့်ကြပ်စစ်ဆေးခြင်း မှ ရရှိလာသော ရလဒ်များ (ပြင်ပဓာတ်ခွဲခန်း မှ)	လစဉ်	ပုဂ္ဂလိက (ပြင်ပ) ဓာတ်ခွဲခန်း	Environmental Engineers
၉	စွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲမှု	စွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲမှု	ဆောက်လုပ်ရေးနှင့် စက်ရုံလည်ပတ်ရေးမှ ထွက်ရှိလာသော စွန့်ပစ်ပစ္စည်းများ	ဝန်ထမ်းအိမ်ရာများ အပါအဝင် စက်ရုံဧရိယာ အားလုံး	စွန့်ပစ်ပစ္စည်းထွက် ရှိမှုကို ကောက်ယူခြင်း	အမှိုက်သိမ်းနေရာအား လုံးမှ စွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲမှုမှတ်တမ်းများ ကို စုစည်းခြင်း။	လစဉ်	အမှိုက်စုဆောင်းရေး နေရာများမှ တာဝန်ခံများ	Environmental Engineers

1. Introduction

1.1 Executive Summary

Shwe Taung Cement Company Ltd. (STC), part of the Shwe Taung Group (STG) which owns and operates a variety of businesses across various sectors in Myanmar, is planning a brownfield expansion of cement production at its existing cement plant in Pyi Nyaung Village, Thazi Township in the Mandalay region of Myanmar. The Project aims to expand STC's clinker production capacity from 1,500 tonnes per day (tpd) to 5,500 tpd and cement capacity from 2,800 tpd to 7,200 tpd. The location of the Project is shown in Figure 1.

STC commissioned Environmental Resources Management (ERM)-Hong Kong, Limited to undertake the Environmental Impact Assessment (EIA) for the cement plant expansion Project.

The cement plant area covers 400 acres leased under a 50-year agreement from the Forest Department on 31 March 2016 (following three lease agreements renewed annually) including 45 acres used by the cement plant first line, 15 acres to be used by the second line (the Project) and 50 acres of dedicated water resources. Eight (8) acres are allocated for employee housing and catering services and the remaining 282 acres are planted or used for access roads. An adjacent area of 55 acres leased under a 50-year agreement from the Forest Department on 31 March 2016 is allocated to employees' family housing and recreation activities.

Shwe Taung Cement Co., Ltd (STC) received the approval from Environmental Conservation Department (ECD), Ministry of Natural Resources and Environmental Conservation (MONREC) for the project of cement production and expansion of cement capacity from 2800 tpd to 7200 tpd per day in Kupyin Village Tract, Thazi Township, Mandalay Region on 5 Dec 2019, Letter No. EIA-1/4-Sa (2592/2019), Office No. 53, Nay Pyi Taw, ECD, MONREC, Union of Republic of Myanmar. Therefore, STC conducted environmental monitoring program in line with Environmental Management Plan and comply Environmental Conservation Law and Rules, the Procedure of ECD and submit this biannual environmental monitoring report for July 2023 to December 2023.

1.2 Purpose of Environmental Monitoring

Monitoring is a means of verifying the effectiveness of the management and mitigation measures contained within the management plans listed in STC EIA for Cement Plant.

- 1) The Environmental Engineers from HSE department of Cement Plant shall do the following:
 - Monitor and implement the this ESMP at site;
 - Conduct Environmental monthly inspection checklist audit;
 - Monitor laboratory personnel while conducting their water sampling and testing method;
 - Assist and monitor the implementation of Waste Management; and
 - Monitor and review the air emission test result for compliance recommendation.
- 2) All inspection checklist audit finding that needs rectification shall be recorded in Environmental and Social tracker and will be assigned by Environmental Manager to concerned department head for rectification.
- 3) All water, effluent and air emission test results will be compiled for review and analyses by Environmental Manager and approved by Head of HSE Department.
- 4) All generated waste according to their classification and final disposal will be entered to waste management matrix for monthly report.
- 5) The Environmental Executive will be implementing and monitoring within the project area, new infestation and according to BAP.

1.3 Health, Social and Environment (HSE) Department

Shwe Taung Cement Co., Ltd. established HSE Department and responsibility of HSE Department are as follows.

- 1) Implementation of Environmental Management Plans of approved EIA report of STC Cement Plant, Comply Rules and Regulations of Environmental Conservation, report Environmental Monitoring
- 2) Supervise third party stakeholders, contractors and other organizations for environmental monitoring program
- 3) Monitoring environmental impact and report the relevant documents
- 4) Promote the ability of employees by conducting knowledge sharing training and awareness on environmental conservation.

1.4 Environmental Performance Indicators and Monitoring Schedule

Physical, biological and social environmental management components of particular significance have been identified as performance indicators. A comprehensive monitoring plan for each performance indicator has been prepared for all phases of the Project, presented in Table 1.0.

This includes the parameters to be measured, methods to be utilized, sampling locations, frequency of measurements, detection limits and responsibilities for implementation and supervision.

Impact monitoring will be undertaken during the life of the Project to verify the predicted levels of residual impacts from the Project and the effectiveness of the various management plans and mitigation measures.

Shwe Taung Cement Co., Ltd. will prepare an environmental monitoring report and submit to the Ministry of Natural Resources and Environmental Conservation, MONREC in every six months as per the EIA Procedure requirements.

Table 1 - Environmental Monitoring Program

Item No.	Project Stage/Component	Potential Impact	Parameters to be monitored	Location	Measurement	Procedure	Frequency	Operation Responsibility	Environment Responsibility
1	Construction and Operation/ Cement Plant	Inspection of mitigation compliance	General compliance with mitigation measures presented in the ESMP	Project activity areas	Visual inspection of all active work areas and inspection of records	1. Daily & Weekly inspection Checklist 2. WMP Inspection Checklist	Weekly	STC Operation Team	Environmental Engineers
2	Operation/ Cement Plant	Stack emission from kiln system.	NO _x , SO ₂ , PM _{2.5} , PM ₁₀ and O ₂	Discharge to kiln stack at new and existing plant	Real-time monitoring system	Data Result from real time monitoring	Continuous monitoring	STC Operation/ Control room	Environmental Engineers
3	Operation/ Cement Plant	Stack emission from kiln system.	Check compliance with Myanmar National Environmental Quality (Emission) Guidelines (2015) for Cement and Lime Manufacturing (for NO _x , SO ₂ , PM _{2.5} , PM ₁₀)	Stack emission from existing and new kilns	Standard analytical methods	Data result from ECD monitoring report	Monthly	STC Operation/ Control room	Environmental Engineers
4	Operation/ Cement Plant	Dust impact	Dust deposition	Cement Plant, Kubyin and Pyi Nyaung Village	Dust deposition gauge	Data result from STC Laboratory from different sampling points	Monthly	STC Laboratory	Environmental Engineers
5	Operation/ Cement Plant	Discharge of treated wastewater	Check compliance with Myanmar National Environmental Quality (Emission) Guidelines (2015) for site runoff and wastewater discharges (for BOD, COD, TSS, Oil and Grease, pH, total coliform bacteria, total nitrogen, total phosphorus)	Treated wastewater discharged points at: 1. Coal Storage Area and Materials Handling Yards 2. Fuel Storage Area 3. Treated sanitary wastewater treatment facility and 4. Reservoir	Standard analytical methods	Data result from sampling points (Private Laboratory)	Monthly	STC Laboratory	Environmental Engineers
6	Operation/ Cement Plant	Discharge of treated wastewater and runoff	Check compliance with Myanmar National Environmental Quality (Emission) Guidelines (2015) for Cement and Lime Manufacturing (for NO _x , SO ₂ , PM _{2.5} , PM ₁₀)	Treated industrial wastewater discharge point from cement manufacturing process	Standard analytical methods	Data result from sampling points (STC Laboratory compare to from ECD monitoring result)	Monthly	STC Laboratory	Environmental Engineers
7	Biodiversity	Habitat	Monitoring of invasive species is to occur within the project area on an annual basis. New infestations identified are to be controlled	Project activity areas	Visual inspection of all active work areas and inspection of records	Visual inspection or as plan to install camera trap	Monthly	Security / Social community	Environmental Engineers
8	Air Quality	Cement Plant – Stack emission	An occupational exposure monitoring programme for workers will be put in place to monitor indoor air quality	Inside office area	Standard analytical methods	Data result from ambient air monitoring inside the offices (Private Laboratory)	Monthly	Private Laboratory	Environmental Engineers
9	Waste management	Waste management	Generated waste for operation and construction	All sites: 1. Plant Area including Accommodation	Accumulations of generated waste	Consolidation of Waste management log sheet from all waste collection points	Monthly	Area in-charge of waste collection points	Environmental Engineers

2. Project Information

2.1 Project Location

Shwe Taung Cement Co., Ltd. Located in Kupyin Village Tract, Thazi Township, Meikhtila District, Mandalay Region. The cement plant area covers 400 acres leased under a 50-year agreement from the Forest Department on 31 March 2016 (following three lease agreements renewed annually) including 45 acres used by the cement plant first line, 15 acres to be used by the second line (the Project) and 50 acres of dedicated water resources. Eight (8) acres are allocated for employee housing and catering services and the remaining 282 acres are planted or used for access roads. An adjacent area of 55 acres leased under a 50-year agreement from the Forest Department on 31 March 2016 is allocated to employees' family housing and recreation activities.

The cement plant is situated in a valley surrounded by a mudstone quarry to the west and a limestone quarry to the east, which falls within the Tha Pyae mountain range (Figure 1).

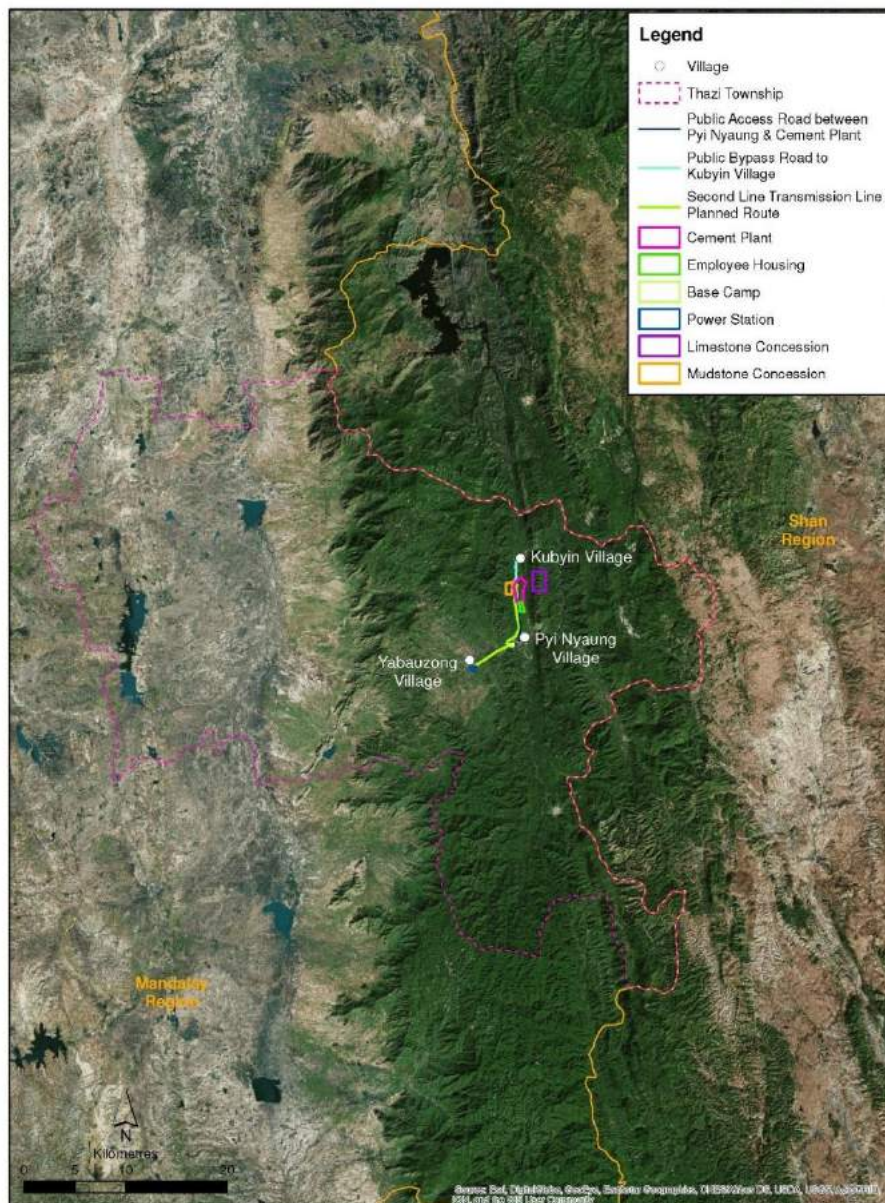


Figure 1. Location of STC Cement Plant

2.2 Project Description

STC manufactures cement with clinker, gypsum and limestone (additive). Clinker is produced from limestone, mudstone, laterite and other materials. The clinker production and cement grinding capacity of the existing plant are 1,500 tpd and 2,800 tpd, respectively. The Project involves expanding the clinker production capacity to 5,500 tpd and 7,200 tpd of cement through the construction of a new rotary kiln and associated facilities. A dry process is used for the cement production and the second line will adopt a similar dry process as the first line, with additional facilities installed to achieve the increased capacity. These additional facilities will be installed within the existing 455-acre site.

All land leased to date by the company is state-owned forest land. With the exception of a small amount of land to accommodate the new transmission line, no new land is required to accommodate the expanded facilities.

Project components of the existing and expanded cement plant are shown in Figure 2. These include raw materials crushing area, handling area, clinker production area, cement grinding area, cement packing and dispatch area, coal staging area and office building.

During the reporting period of July 2023 to December 2023, cement plant is operating stage.

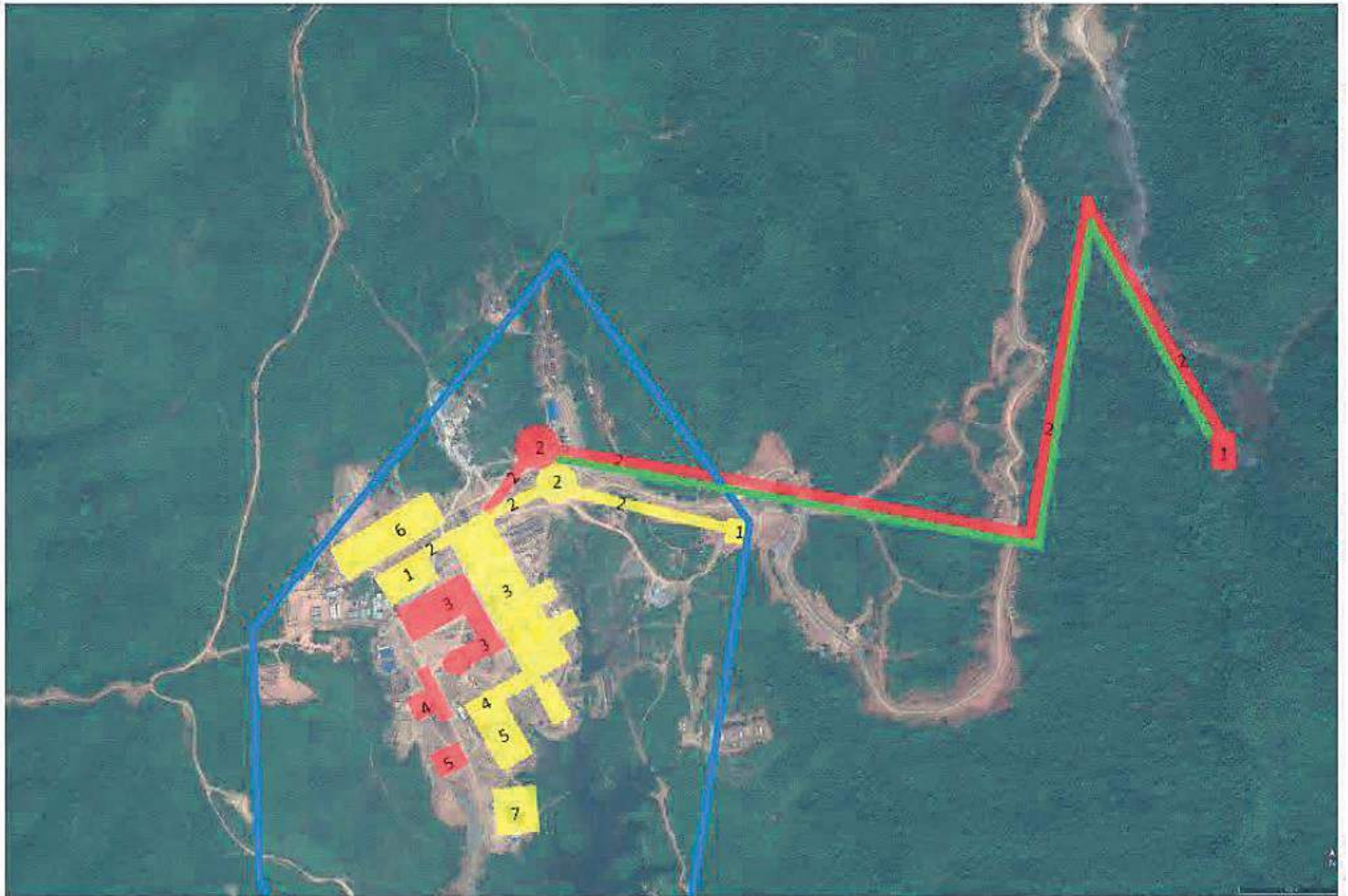


Figure 2. Project Components of the Existing and Expanded STC Cement Plant

Index



Existing Cement Line Facilities

- 1 - Raw Materials Crushing Area
- 2 - Handling Area
- 3 - Clinker Production Area
- 4 - Cement Grinding Area
- 5 - Cement Packing and Dispatch Area
- 6 - Coal Staging Area
- 7 - Office



Expansion Cement Line

- 1 - Raw Material Crushing Area
- 2 - Handling Area
- 3 - Clinker Production Area
- 4 - Cement Grinding Area
- 5 - Cement Packing and Dispatch Area



Expansion Conveyor Line



Boundary Line

3. Environmental Monitoring Program

3.1 Air Quality Monitoring

Cement industry is a potential anthropogenic source of air pollution. Cement manufacturing is a highly energy intensive process in other word intensive fuel consumption for clinker making and resulting in emissions. The cement dust produced by cement manufacturing unit i.e. calcining, crushing, grinding, packing, loading/unloading are considered one of the most pollutants such as PM10, PM2.5, SO2 and NO2 which affect the surrounding environment.

Stack Emission monitoring from Kiln System is measured with Testo PG-350 Portable Combustion and Emission Analyzer. Ambient Air Quality monitoring is measured with portable HAZ-SCANNER™ EPAS device.

Continuous Emission Monitoring System (CEMS) was ordered in July 2019 and arrived to cement plant in November 2019. There was a flood disaster at manufacturing factory of CEMS at India, and that manufacturing delay issue was reported to ECD. Sampling gases are not included in the CEMS procurement package and there was no supplier available in Myanmar. So STC has applied the import permit to Ministry of Commence, Myanmar with the recommendation of MONREC in March 2020, and those gases were arrived to cement plant in July 2020. The supplier from India couldn't come to Myanmar for installation, testing and commissioning of CEMS due to COVID19 situation in India and travel restriction in Myanmar. STC plant operation team is presently installing the CEMS with the remote support of supplier from India. It took months to install as some of CEMS associated accessories such as piping system, electrical cables of sampling gases were not available in local market as those gases are special gases and not many local suppliers are kept in-stock in Myanmar. So we have ordered from China and some are still not arrived to cement plant due to COVID19 situation.

3.1.1 Monitoring Location

3.1.1.1 Stack Emission

Figure 3 and 4 show the location of Kiln Stack Emission Monitoring and Ambient Air Monitoring monthly by Myanmar National Environmental Quality (Emission) Guidelines (2015) for cement and lime manufacturing (for NOx, SO2, PM2.5, PM10 etc.) are the parameters measured.



Figure 3. Location of Kiln Stack Emission Monitoring

3.1.1.2 Location Map for Ambient Air Monitoring

Ambient air quality monitoring location had been selected by identifying potentially affected with consideration given to the prevailing wind conditions through Operation and Construction activities.

No	Monitoring Location	Latitude	Longitude
1	AQ1_Worker Accommodation	20°50'56.15"N	96°23'35.97"E
2	AQ2_Ku Pyin Village	20°53'20.47"N	96°23'27.58"E
3	AQ3_Pyi Nyaung Village	20°49'4.58"N	96°23'40.42"E



Figure 4. Ambient Air Quality Monitoring

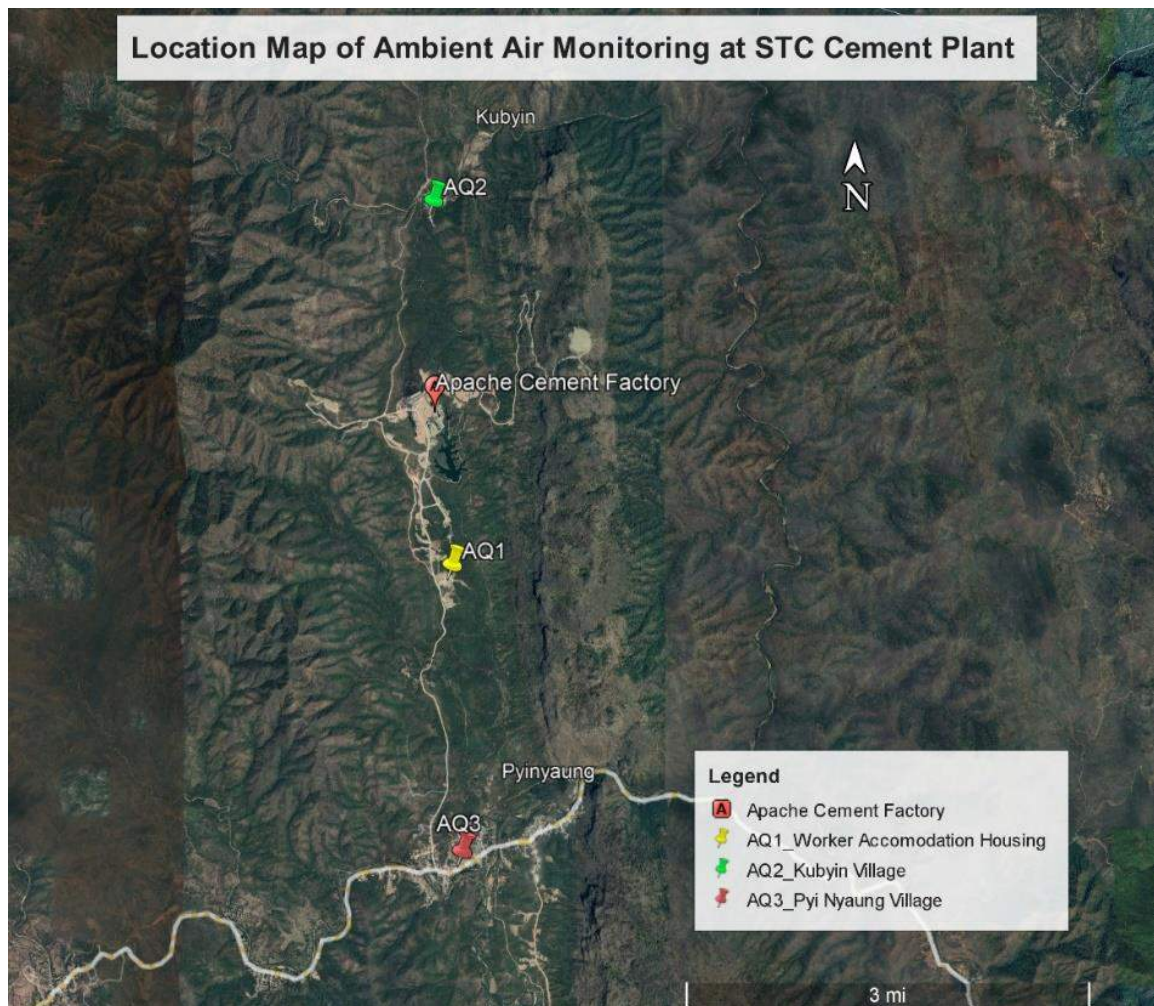


Figure 5 - Location Map of Ambient Air Monitoring at STC Cement Plant

3.1.2 Monitoring Method

Stack emission monitoring is measured by Testo PG-350 Portable Combustion and Emission Analyzer. The instrument consists of the control unit (control unit for displaying readings and controlling the analyzer box) and the analyzer box (measuring instrument). Plug-type contacts, data cable or Bluetooth (option) are used to connect the control unit to the analyzer box.

Web link: <https://www.manualslib.com/manual/1284324/Testo-350.html>

The portable HAZ-SCANNER™ EPAS wireless environmental perimeter air station is easily deployed as an ambient air quality monitor to measure and document critical U.S. EPA criteria pollutants including nitrogen dioxide, sulfur dioxide, ozone, carbon dioxide, particulates, VOCs, and more. The EPAS provides direct readings in real time with data logging capabilities.

Web link: <https://www.skinc.com/catalog/pdf/instructions/EPAS%20manual%20v.3.1.pdf>

3.1.3 Monitoring Result for Kiln Stack Emission

Line 1 was shut down in October 2023 and there was no monitoring in Line 2 during December 2023 because stack emission monitoring device (Testo-350) was sent to Yangon for further calibration process in Thailand. All results are within Myanmar National Environmental Quality (Emission) Guidelines (2015).

Line 1 Kiln Stack

Table 2 - Summary of Stack Emission Monitoring for Line 1 Kiln Stack in 2023

STACK EMISSION AIR QUALITY MONITORING 2023									
ECD/WHO/IFC/SGN Guideline			Production Line 1 Kiln Stack						
Parameter	Averaging Period	Value	Test Result						Shut Down
			July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023	
Carbon dioxide	1 hour	%	4.12	3.09	2.57			2.65	5.06
Oxygen	1 hour	%	13.72	15.55	16.47			16.31	12.06
Carbon monoxide	1 hour	625 mg/Nm ³	57.5	28.75	26.25			32.5	70
Nitrogen oxides	1 hour	600 mg/Nm ³	112.56	112.56	104.52			96.48	151.42
Sulphur dioxide	1 hour	400 mg/Nm ³	0	0	2.86			2.86	2.86

Line 2 Kiln Stack

Table 3 - Summary of Stack Emission Monitoring for Line 2 Kiln Stack in July to December 2023

STACK EMISSION AIR QUALITY MONITORING 2023									
ECD/WHO/IFC/SGN Guideline			Production Line 2 Kiln Stack						
Parameter	Averaging Period	Value	Test Result						Dec 2023
			July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023		
Carbon dioxide	1 hour	%	2.98	3.33	2.9	2.65	3.68		
Oxygen	1 hour	%	15.73	15.12	15.88	16.33	14.5		
Carbon monoxide	1 hour	625 mg/Nm ³	40	42.5	63.75	32.5	82.5		
Nitrogen oxides	1 hour	600 mg/Nm ³	191.62	168.84	160.8	138.02	99.16		
Sulphur dioxide	1 hour	400 mg/Nm ³	2.86	2.86	2.86	5.72	2.86		

3.1.4 Monitoring Result for Ambient Air Quality Monitoring

Table 4 - Summary of Ambient Air Quality Monitoring at Plant Site from July to December 2023

Ambient Air Monitoring by Haz-scanner								
Date: July 2023 to Dec 2023	Machine Name: Haz-scanner (EPAS)		Operator: Nay Hlaing Oo					
			Location: Plant Site (55 Acre Family Housing)					
	ECD/ WHO / IFC Guideline		Test Result					
Parameter	Averaging Period	Guideline Value in µg/m3	July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Nitrogen dioxide	24 hours	200	105.88	79.82	37.44	53.58	54.38	56.00
Ozone		100	59.32	50.90	54.37	32.06	33.43	36.06
PM10		50	11.52	21.31	8.19	13.09	20.35	27.12
PM2.5		25	6.22	10.45	4.99	7.75	5.37	3.7
Sulphur dioxide		20	72.25	35.92	32.59	41.34	25.78	20.69
Carbon dioxide		ppm	356.73	354.26	360.66	407.63	374.85	332.5
Carbon monoxide		10 ppm	0.98	0.09	0.09	0.07	0.09	0.10

Table 5 - Summary of Ambient Air Quality Monitoring at Pyi Nyaung village from July to December 2023

Ambient Air Monitoring by Haz-scanner								
Date: Jul 2023 to Dec 2023	Machine Name: Haz-scanner (EPAS)		Operator: Nay Hlaing Oo					
			Location: Pyi Nyaung					
	ECD/ WHO / IFC Guideline		Test Result					
Parameter	Averaging Period	Guideline Value in µg/m3	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Nitrogen dioxide	24 hours	200	70.04	33.10	31.03	24.06	44.44	Air Quality Monitoring device sent to local supplier for maintenance and calibration
Ozone		100	43.15	23.73	27.47	16.48	29.69	
PM10		50	15.53	18.19	14.74	20.75	25.09	
PM2.5		25	6.73	11.39	3.32	6.25	4.97	
Sulphur dioxide		20	61.75	57.29	27.01	38.61	24.10	
Carbon dioxide		ppm	370.78	364.84	359.72 2	312.21	329.89	
Carbon monoxide		10 ppm	0.12	0.11	0.09	0.08	0.10	

Table 6 - Summary of Ambient Air Quality Monitoring at Ku Pyin village from July to December 2023

Ambient Air Monitoring by Haz-scanner								
Date: Jul 2023 to Dec 2023	Machine Name: Haz-scanner (EPAS)		Operator: Nay Hlaing Oo					
			Location: Ku Pyin					
	ECD/ WHO / IFC Guideline		Test Result					
Parameter	Averaging Period	Guideline Value in µg/m3	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Nitrogen dioxide	24 hours	200	119.17	85.74	59.31	11.86	76.57	Air Quality Monitoring device sent to local supplier for maintenance and calibration
Ozone		100	67.87	52.56	37.00	13.95	44.76	
PM10		50	13.73	15.26	11.18	9.25	24.65	
PM2.5		25	7.88	10.18	5.41	3.31	4.62	
Sulphur dioxide		20	82.50	40.97	30.44	20.43	35.39	
Carbon dioxide		ppm	352.75	369.91	369.94	85.84	328.62	
Carbon monoxide		10 ppm	0.10	0.10	0.07	0.13	0.10	

Note: Result that exceeded the guideline limit is highlighted in red.

**Note: This data submitted to ECD on a monthly basis*

3.1.5 Air Quality Index

The HAZ-SCANNER™, ambient air quality monitoring system, provides a comprehensive data of current air contaminants in a project location. Then, air monitoring data of pollutants is processed into a dimensionless unit called the “Air Quality Index” (AQI); it serves as an information medium for the people to know the air quality health of their location and takes preventative steps accordingly (public participation). As instructed from Meiktila ECD to HSE Department in September 2023, STC has updated this bi-annual monitoring report and verified with Meiktila ECD on the reporting format during last quarter of 2023. Meiktila ECD accepted the updated report during January 2023. Therefore, STC has updated the AQI results in all bi-annual monitoring reports of STC Cement Plant during January – February 2023.

The AQI is divided into six categories. Each category corresponds to a different level of health concern. Each category also has a specific color. Thus, the AQI is a beneficial tool for the company, public, stakeholders, and regulators to understand the current state of air quality. The color makes it easy for people to quickly determine whether air quality is reaching unhealthy levels in their communities.

Daily AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Green	Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Red	Unhealthy	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

Figure 6 - AQI Basics for Ozone and Particle Pollution

Table 7 - Summary of AQI at Plant Site from July to December 2023

Air Quality Index (AQI)										
Date: Jul 2023 to Dec 2023	Machine Name: Haz-scanner (EPAS)		Operator: Nay Hlaing Oo							Sensitive Group
			Location: Plant Site							
			AQI Results							
Parameter	Averaging Period	Unit	July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023		
PM ₁₀	24 hour	ug/m3	0	0	0	12	19	25	People with respiratory disease are the group most at risk.	
PM _{2.5}	24 hour	ug/m3	28	23	22	32	22	15	People with respiratory or heart disease, the elderly and children are the groups most at risk.	
Carbon monoxide	8 hour	ppm	53	40	18	0	0	0	People with heart disease are the group most at risk.	
Ozone	8 hour	ppb	39	19	17	19	14	17	Children and people with asthma are the groups most at risk.	
Nitrogen dioxide	1 hour	ppb	10	19	7	26	26	27	People with asthma or other respiratory diseases, the elderly, and children are the groups most at risk.	
Sulphur dioxide	1 hour	ppb	26	44	21	21	13	10	People with asthma are the group most at risk.	

Remark: PM_{2.5} values are majorly impacted by human activities (forest firing & open burning, etc.) from surrounding environment

Table 8 - Summary of AQI at Pyi Nyaung Village from July to December 2023

Air Quality Index (AQI)										
Date: Jul 2023 to Dec 2023	Machine Name: Haz-scanner (EPAS)		Operator: Nay Hlaing Oo							Sensitive Group
			Location: Pyi Nyaung Village							
			AQI Results							
Parameter	Averaging Period	Unit	July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023		
PM ₁₀	24 hour	ug/m3	1	1	0	19	23	Air Quality Monitoring device sent to local supplier for maintenance and calibration	People with respiratory disease are the group most at risk.	
PM _{2.5}	24 hour	ug/m3	22	11	13	26	20		People with respiratory or heart disease, the elderly and children are the groups most at risk.	
Carbon monoxide	8 hour	ppm	34	16	15	0	1		People with heart disease are the group most at risk.	
Ozone	8 hour	ppb	31	30	14	7	14		Children and people with asthma are the groups most at risk.	
Nitrogen dioxide	1 hour	ppb	14	17	13	11	22		People with asthma or other respiratory diseases, the elderly, and children are the groups most at risk.	
Sulphur dioxide	1 hour	ppb	28	47	14	20	13		People with asthma are the group most at risk.	

Table 9 - Summary of AQI at Ku Pyin Village from July to December 2023

Air Quality Index (AQI)										
Date: Jul 2023 to Dec 2023	Machine Name: Haz-scanner (EPAS)		Operator: Nay Hlaing Oo							Sensitive Group
			Location: Ku Pyin Village							
			AQI Results							
Parameter	Averaging Period	Unit	July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023		
PM ₁₀	24 hour	ug/m3	0	1	0	8	22	Air Quality Monitoring device sent to local supplier for maintenance and calibration	People with respiratory disease are the group most at risk.	
PM _{2.5}	24 hour	ug/m3	33	23	16	14	19		People with respiratory or heart disease, the elderly and children are the groups most at risk.	
Carbon monoxide	8 hour	ppm	62	42	29	1	1		People with heart disease are the group most at risk.	
Ozone	8 hour	ppb	43	23	16	6	20		Children and people with asthma are the groups most at risk.	
Nitrogen dioxide	1 hour	ppb	13	14	10	6	38		People with asthma or other respiratory diseases, the elderly, and children are the groups most at risk.	
Sulphur dioxide	1 hour	ppb	34	43	23	10	19		People with asthma are the group most at risk.	

3.1.6 Evaluation

Ambient Air monitoring was monthly tested at location of Sensitive Air Respectsors such as Cement Plant Accommodation area and nearby villages which are Pyi Nyaung and Ku Pyin from July 2021 to December 2021, as Cement Plant EIA report (2018). All results are within Myanmar National Environmental Quality (Emission) Guidelines (2015), except higher results of Sulphur Dioxide results. STC has noted that there was a lot of forest bush fires set up by some villagers to clean the bushes, nearly every day.

Factors Affecting Ambient Air Quality



Figure 7 - Human activities affected the Ambient Air Quality around STC Cement Plant

STC has investigated the reason of SO₂ result more than Myanmar National Environmental Quality (Emission) Guidelines (2015) as STC uses the low Sulphur content in coal that used as fuel for cement production as stated in STC Cement Plant EIA report. STC has analyzed the monitoring results from the portable HAZ-SCANNER™ EPAS device and found out that SO₂ results were a lot higher during day time and less value at night time. This indicate that the plant is operating 24hours and it couldn't be less during night time.

AQI across the globe considers the number of pollutants (most of the developed countries and some developing countries considers PM_{2.5} to measure the overall status of air quality being monitored), averaging time for which pollutants are measured, calculation method to compute air quality indices for each pollutant, calculation mode to aggregate the overall index, scale of an index, categories, color coding scheme, and related descriptive terms of the pollutants. There are many air quality index models to represent air quality level in the world. STC selected to assess ambient air quality results in Pyi Nyaung area based on AirNow, which is a partnership with the U.S. Environmental Protection Agency (EPA), color-coded index standards.

By analyzing all the AQI results, it is noted that PM_{2.5} values are majorly impacted by human activities (forest firing & open burning, etc.) from surrounding environment. STC will raise the public awareness among cement plant community and also disclosed these air quality monitoring results and AQI results at Pyi Nyaung Information Center and Ku Pyin library according to STC Stakeholder Engagement Plan.

STC engaged 3rd party Environmental consultant as auditor and the auditor advised that this was the case as forest fires in the hills surrounding the plant were numerous at the time of the audit and consistent haze was present over the general area. The Auditor considered that the forest fires are contributing to elevated particulate readings being recorded by STC and elevated readings cannot be solely apportioned to emissions from cement plant and associated facilities.

Therefore, STC was looking other factors that can be impacting on SO₂ results and found out that it was related to emission of mobile vehicles that were higher SO₂ than Kiln emission by using Testo PG-350 Portable Combustion and Emission Analyzer at STC Apache cement plant. There were a lot of heavy machineries and trailer trucks movement during day time and only trailer trucks movement during night time. So STC has raised awareness among the vehicle drivers to stop when they are parking or waiting, with sticker campaign "Turn Off Your Engine While Waiting or Parked" at Apache Cement plant.

These were a notable deterioration in regional air quality was found at Pyi Nyaung area. Moreover, cold air during the cold season can't hold as much moisture, and so the air is usually drier during winter. These habits were also noted on contributing factors of higher results of PM₁₀ and PM_{2.5}.

Moreover, there were regular device servicing and maintenance with NANOVA, authorized supplier of Myanmar of EPAS device, in January and March 2020 during the reporting period. The detail servicing records are attached at Appendix. STC noted the Haz-scanner EPAS SO₂ sensor has some issue as the ambient air quality monitoring result of SO₂ was complied with Myanmar National Environmental Quality (Emission) Guidelines (2015) after NANOVA, the local authorized support of Myanmar.

Carried out sensor checking, testing using zeroing filter and internal tube cleaning by supplier 3 times due to sensor error reading of Haz-scanner devices.

The use of fabric filter system and electrostatic precipitator to collect and control fine suspended particulate emissions are implemented. Water suppression are also undertaken on the roads to mitigate dust emission on surrounding area in plant site and accommodation area. (See in Appendix).

3.1.7 Monitoring Result for Dust Deposition Monitoring

STC monitored dust deposition with 6 points at cement plant, housing/ accommodation area, Ku Pyin and Pyi Nyaung village. The use of fabric/bag filter system and electrostatic precipitator to collect and control fine suspended particulate emissions are implemented in both lines of cement plant. Water suppression was also undertaken on the roads by using the water from sedimentation ponds to mitigate dust emission on surrounding area in plant site, quarries and plant accommodation area.

Please refer the table 10 for dust deposition monitoring results from July 2023 to December 2023.

No	Monitoring Location	Latitude	Longitude
1	STC Accommodation (Ingyin Hostel)	20°51'23.1"N	96°23'34.7"E
2	STC Accommodation (55acres)	20°50'54.5"N	96°23'34.8"E
3	Ku Pyin (Behind Library)	20°53'26.9"N	96°23'24.8"E
4	Ku Pyin (Primary School)	20°53'25.7"N	96°23'33.6"E
5	Pyi Nyaung (Near Main Road)	20°49'09.5"N	96°23'50.9"E
6	Pyi Nyaung (Information Center)	20°49'03.9"N	96°23'40.6"E



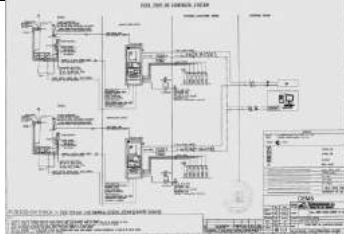
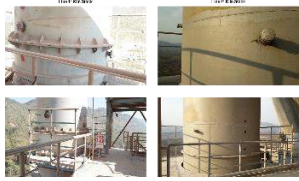

Figure 8 – Dust Deposition Monitoring

Table 10 – Dust Deposition Monitoring results at Cement Plant Accommodation, Ku Pyin and Pyi Nyaung villages from July 2023 to December 2023










Date: July 2023 to Dec 2023	Samplers: Jerico E. Agitan, Khaing Khaing Tun, Nay Hlaing Oo						
	Test Result						
Parameter	Australia & New Zealand Guideline (g/m2/Day)	July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
STC Accommodation (Ingyin Hostel)	1.191	1.07	0.51	0.29	0.39	0.47	0.75
STC Accommodation (55acres)		0.36	0.32	0.27	0.25	0.22	0.40
Ku Pyin (Behind Library)		0.34	0.29	0.19	0.30	0.38	0.42
Ku Pyin (Primary School)		0.27	0.22	0.25	0.41	1.21	0.25
Pyi Nyaung (Near Main Road)		0.39	0.49	0.33	0.45	0.60	0.68
Pyi Nyaung (Information Center)		0.47	0.31	0.24	0.30	0.31	0.60





3.1.8 Air Quality Mitigation Measures

Table 11 – Air Quality Management

Affected Aspect	Mitigation Measures	Action Taken	Photos
Air Quality	<ul style="list-style-type: none"> The discharge to kiln stack at both new and existing plant will be fitted with continuous emission monitoring capable of real-time measurement of NO₂, SO₂, Particulate Matter and O₂ and transmitted to the operator control room. They will not exceed those outlined in Myanmar National Environmental Quality Emission Guidelines (2015) for cement and lime manufacturing and should be further reduced as far as practicable. 	<p>CEMS equipment parts have already arrived to Apache Cement Plant on 19 Nov 2019. Calibration gas cylinder and regulator 6pcs (1set) will be arrived cement plant in July 2020.</p>	
	<ul style="list-style-type: none"> New kiln stack shall be fitted with sampling platform and two sampling ports at 90 degrees. Sampling ports should be four-inch (minimum) inner diameter threaded pipe connections with a cap. This is primarily to allow calibration of in stack continuous monitoring systems but was also allow for monitoring of additional parameters if needed in the future. 	<p>Completed and installed. (See in Section 3.1.3 for stack emission monitoring results)</p>	<p>Installation of 3 sampling port on each Kiln Stack for CEMS</p> 
	<ul style="list-style-type: none"> Emission concentrations of NO_x, SO₂ and PM from existing and proposed kiln system and clinker cooler will exceed those outlined in Myanmar National Environmental Quality Emission Guidelines (2015) for cement and lime manufacturing and should be further reduced as far as practicable. 	<p>Regular monitoring (See in Section 3.1.3 for stack emission monitoring results)</p>	<p>Monthly Stack Emission Monitoring</p> 

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<ul style="list-style-type: none"> An occupational exposure monitoring program for workers will be put in place to monitor indoor air quality. 	Completed by HR & OHS. Result TBA ECD conducted test for Exposure Limits	
<ul style="list-style-type: none"> Reduce number of material transfer points by simple, linear layout for material handling operations; 	Completed and installed for line 1 and line 2 design	
<ul style="list-style-type: none"> Use of enclosed belt conveyors for material transportation and emission controls at transfer points; 	Implementation on line 2	
<ul style="list-style-type: none"> Regular cleaning of conveyor belt systems; 	Included in PME scope (Regular Maintenance of bag filter and electrostatic precipitator, see in Appendix)	
<ul style="list-style-type: none"> Crushed and blended raw materials should be stored in covered or closed bays; 	Additional silo constructed in line 2	
<ul style="list-style-type: none"> Pulverized coal should be stored in silos or closed storage; 	Implemented	
<ul style="list-style-type: none"> Clinker should be stored in covered or closed bays or silos with dust extractions; 	Implemented	
<ul style="list-style-type: none"> Routine plant maintenance to keep air leaks and spills to a minimum; 	Included in PME and PRD scope (Regular Maintenance of bag filter and electrostatic precipitator, see in Appendix)	
<ul style="list-style-type: none"> Material handling processes including crushing operations, raw milling and clinker grinding should be undertaken in enclosed systems maintained under negative pressure by exhaust fans. Dust should be removed using cyclones and bag filters; and 	Equipped with cyclones and bag filters (Regular Maintenance of bag filter and electrostatic precipitator, see in Appendix)	

	<ul style="list-style-type: none"> • Implementation of automatic bag filling and handling systems; 	<p>Implemented both line 1 and line 2</p>	
	<ul style="list-style-type: none"> • Use of electrostatic precipitators (ESPs) or fabric filter systems to collect and control fine suspended particulate emissions in the kiln gases; 	<p>Installed (Regular Maintenance of bag filter and electrostatic precipitator, see in Appendix)</p>	
	<ul style="list-style-type: none"> • Use of cyclones to separate larger particulates of cooler gases followed by fabric filters and finally 	<p>Equipped with cyclones and bag filters line 1 and line 2 (Regular Maintenance of bag filter and electrostatic precipitator, see in Appendix)</p>	
	<ul style="list-style-type: none"> • Mild dust should be captured and recycled using fabric filters within the mill. 	<p>Equipped with bag filters (Regular Maintenance of bag filter and electrostatic precipitator, see in Appendix)</p>	

3.2 Water Quality Monitoring

Monitoring of water quality regularly is quite necessary for the assessment of water quality for beneficial purposes. Operation is dry process and do not generate wastewater. Sanitary wastewater from office and household are discharged to bio tank and treated wastewater are monitored in compliance with the NEQEG on BOD, COD, pH, SS, oil & grease, TN & TP and as per WHO Drinking water guidelines.

3.2.1 Monitoring Location

Figure 10, 11, 12 and 13 shows the location of Water Quality sampling point monthly on WHO Drinking Water Guidelines and IFC Effluent Water Guidelines for Water Quality Monitoring (e.g. pH, Color, Turbidity, Iron, BOD, COD etc.) are the parameters for measurement.

No	Sampling Location	Latitude	Longitude
1	Bio Tank Effluent Discharge to Sedimentation # 9	20°50'51.2"N	96°23'45.4"E
2	Supply Water	20°51'35.3"N	96°23'37.7"E
3	Sedimentation Pond Effluent	20°52'14.0"N	96°23'23.6"E



Figure 9 – Bio Tank

3.2.1.1 Location Map of Water Quality Sampling Points



Figure 10 - Overview Map of sampling point for River Water Quality



Figure 11 - Overview Map of sampling point for Drinking water facility



Figure 12 - Overview Map of sampling point for Sanitary Wastewater



Figure 13 – Water Quality Sampling

3.2.2 Monitoring Result for Water Quality

Table 12 – Monitoring Result of Water Quality

Bio Tank Effluent Discharge to Sedimentation # 9							
Parameter	IFC Wastewater Guideline	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
pH	6~9	8.3	8.4	8	7.8	7.9	No effluent Water Discharged
COD	0~125 mg/l	50	58	13	11	20	
BOD	0~30 mg/l	35	25	3	15	10	
TSS	Max 50 mg/l	38	37	11	34	96	
TDS	-	-	-	-	-	-	
Total Nitrogen	10 mg/l	-	-	3.16	4.09	4.31	
Total Nitrate	44.29 mg/l	-	-	14	18.1	19.1	
Total Phosphorus	2 mg/l	0.9	0.1	0.5	0.3	0.1	
Oil and Grease	10 mg/l	ND	ND	8	7.6	ND	

*STC couldn't buy reagent from local supplier to test Total Nitrogen and Tor

* There was no effluent water from the sedimentation pond #9 in December 2023.

* STC has tested the water quality from the sedimentation ponds for using water with water truck to suppress dust around the cement plant and quarry sites.

Table 13 – Supply Water Quality Monitoring Result

Supply Water Analysis							
ITEM	WHO Drinking Water Guideline	July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
pH	6.5 – 8.5	8.5	8.6	8.1	8	8.2	8.3
Color	15 PCU	35	5	25	30	25	35
Turbidity	5 NTU	4.52	2.71	5.91	7.28	4.17	3.68
Calcium hardness (CaCO ₃)	500 mg/l	1114	125	129	154	165	165
Chloride (Cl)	250 mg/l	4	5	5	5	5	5
Sulphate (SO ₄)	200 mg/l	20	20	20	20	10	20
TSS	50 mg/l	19	11	20	21	17	17
Nitrate	50 mg/l	9.7	-	9	2.4	3.7	12.6
E-coli	-	-	-	-	-	-	-
Coliform	-	-	-	-	-	-	-

* Not for drinking water. No effect for Health & Environment.

Table 14 – Sedimentation Pond Effluent Test Result

Sedimentation Pond 4 (Near Coal Staging Area) Effluent Test Result							
Parameters	IFC Waste Water Guideline	July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
pH	6 ~ 9	7.9	7.9	7.8	7.6	8	7.8
Chemical Oxygen Demand (COD)	0~125 mg/l	32	25	14	23	23	26
Biological Oxygen Demand (BOD)	0~30 mg/l	16	13	10	11	11	7
Total Suspended Solid (TSS)	Max 50 mg/l	13	18	44	146	26	54
Total Nitrogen	10 mg/l	-	-	3.29	2.78	1.87	0.16
Total Nitrate	44.29 mg/l	-	-	14.6	12.3	8.3	0.7
Total Phosphorous	2 mg/l	0.8	0.3	0.3	0,2	0.2	0.1
Oil and grease	10 mg/l	9.2	8.5	ND	ND	8.4	ND

** Not for drinking water. No effect for Health & Environment.*







** There was no effluent water from the sedimentation pond #4 during July to December 2023.*







** STC has tested the surface water quality from the sedimentation ponds for using water with water truck to suppress dust around the cement plant and quarry sites.*








Laboratory results for water quality are attached in Appendix-B.

3.2.3 Water Quality Mitigation Measures



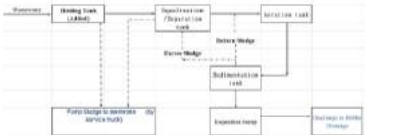
Table 15 – Water Quality Management

Affected Aspect	Mitigation Measures	Action Taken	Photos
Surface Water Quality	<ul style="list-style-type: none"> Implementing storm water management practices to manage the flow of storm-water, prevent uncontrolled migration and minimize erosion and sediment transport from project facilities and disturbed areas. Construction of a dedicated drainage network to intercept and diversion runoff; 	Constructed stormwater drain around the cement plant channel to sedimentation ponds	  <p style="text-align: center; font-size: small;">Figure (2) Drainage for catchment area</p>
	<ul style="list-style-type: none"> Divert runoff from the mudstone quarry to an appropriately sized and maintained sedimentation pond to allow adequate retention time for suspended solids to settle; 	Constructed sedimentation pond dual stage.	<p style="font-size: x-small;">Sedimentation pond from storm water runoff to allow adequate retention time for suspended solids to settle before entering wetlands area.</p> <p style="text-align: center; font-size: x-small;">Location Map of Sedimentation Pond at STC Site</p>  
	<ul style="list-style-type: none"> Divert runoff from the limestone quarry to the wetland created by STC via a weir to remove suspended solids before entering the wetland; 	Constructed sedimentation pond dual stage.	 <p style="text-align: center; font-size: small;">Figure (2) Drainage for catchment area</p>
	<ul style="list-style-type: none"> Baffles or other measures to reduce the velocity of runoff downhill slopes should be installed to minimize scouring; 	Visual monitoring by MNE	 <p style="text-align: center; font-size: x-small;">Figure (3) Zoning for slope protection measures.</p>

	<ul style="list-style-type: none"> Exposed areas and overburden dumps should be revegetated as quickly as possible. 	<p>Tree planting during monsoon season</p>	<p>World Environment Day 2019: Plant a Tree</p> 
	<ul style="list-style-type: none"> STC will prepare and implement a Storm water Management Plan taking into account the mitigation committed above. 	<p>Plan have been developed and construction on progress for Line 2 area. Line 1 area was constructed since 2014.</p>	 <p>Figure 3.2 Storm water flow, cement plant and limestone mine area</p>
	<ul style="list-style-type: none"> All areas used to store and/or handle coal, laterite and limestone should be paved and surrounded by perimeter drains. For the coal storage area, it should be covered; 	<p>Implemented and covered during monsoon season</p>	<p>Material Handling: Coal Stockpile Storage @ 501 Area</p> 
	<ul style="list-style-type: none"> Runoff from the laterite and limestone staging areas shall be diverted to retention ponds and may be used for greening, dust suppression or discharged to the onsite reservoir. 	<p>Constructed sedimentation pond dual stage and reuse for gardening and dust control.</p>	 <p>Coal Staging Stockpile: Double Stage Sedimentation Pond</p> 
	<ul style="list-style-type: none"> For the coal storage area, STC has agreed to cover this area. Water from the roof will be diverted via storm water drains to retention ponds and may be used for greening, dust suppression or discharged to the onsite reservoir. Runoff collected by the interceptor drains (small volume) within the covered coal storage area will be diverted for treatment at the wastewater treatment plant. 	<p>Constructed sedimentation pond triple stage.</p>	 <p>Triple Stage Sedimentation Pond</p>

	<ul style="list-style-type: none"> Discharges into the reservoir and any runoff discharged to surface streams should be monitored monthly for compliance with Myanmar National Environmental Quality (Emissions) Guidelines for site runoff and wastewater discharges (for TSS, oil and grease, pH). 	<p>Conducted and monitored by LQC result documented (See in 3.2.2 water result)</p>	<p>Table – Supply Water Quality Monitoring Result</p> <table border="1"> <thead> <tr> <th colspan="8">Supply Water Analysis</th> </tr> <tr> <th>ITEM</th> <th>WHO Drinking Water Guideline</th> <th>Jan 2020</th> <th>Feb 2020</th> <th>Mar 2020</th> <th>Apr 2020</th> <th>May 2020</th> <th>Jun 2020</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>6.5-8.5</td> <td>7.0</td> <td>7.1</td> <td>7.1</td> <td>7.7</td> <td>7.3</td> <td>7.1</td> </tr> <tr> <td>Color</td> <td>15 PCU</td> <td>1</td> <td>10</td> <td>20</td> <td>20</td> <td>20</td> <td>20</td> </tr> <tr> <td>Turbidity</td> <td>5 NTU</td> <td>0.99</td> <td>4.30</td> <td>4.67</td> <td>4.62</td> <td>0.94</td> <td>0.73</td> </tr> <tr> <td>Calcium hardness (CaCO₃)</td> <td>300 mg/l</td> <td>130</td> <td>130</td> <td>130</td> <td>130</td> <td>130</td> <td>90</td> </tr> <tr> <td>Iron</td> <td>0.3 mg/l</td> <td>4</td> <td>10</td> <td>10</td> <td>10</td> <td>10</td> <td>10</td> </tr> <tr> <td>Chloride (Cl)</td> <td>250 mg/l</td> <td>4</td> <td>5</td> <td>7</td> <td>5</td> <td>5</td> <td>5</td> </tr> <tr> <td>Sulfate (SO₄)</td> <td>400 mg/l</td> <td>30</td> <td>40</td> <td>30</td> <td>30</td> <td>30</td> <td>30</td> </tr> <tr> <td>TSS</td> <td>100 mg/l</td> <td>100</td> <td>100</td> <td>100</td> <td>140</td> <td>140</td> <td>140</td> </tr> <tr> <td>Oil</td> <td>10 mg/l</td> <td>10</td> <td>10</td> <td>10</td> <td>20</td> <td>20</td> <td>20</td> </tr> <tr> <td>Manganese</td> <td>0.05 mg/l</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> </tr> <tr> <td>Nitrate</td> <td>50 mg/l</td> <td>-</td> <td>-</td> <td>-</td> <td>2.2</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>Copper</td> <td>2 mg/l</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> </tr> <tr> <td>Softness</td> <td>-</td> <td>10</td> <td>10</td> <td>10</td> <td>10</td> <td>10</td> <td>10</td> </tr> <tr> <td>Phenolphthalein acidity</td> <td>-</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Total acidity</td> <td>-</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Free Chlorine</td> <td>-</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> </tr> <tr> <td>Fluoride</td> <td>-</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> </tr> </tbody> </table>	Supply Water Analysis								ITEM	WHO Drinking Water Guideline	Jan 2020	Feb 2020	Mar 2020	Apr 2020	May 2020	Jun 2020	pH	6.5-8.5	7.0	7.1	7.1	7.7	7.3	7.1	Color	15 PCU	1	10	20	20	20	20	Turbidity	5 NTU	0.99	4.30	4.67	4.62	0.94	0.73	Calcium hardness (CaCO ₃)	300 mg/l	130	130	130	130	130	90	Iron	0.3 mg/l	4	10	10	10	10	10	Chloride (Cl)	250 mg/l	4	5	7	5	5	5	Sulfate (SO ₄)	400 mg/l	30	40	30	30	30	30	TSS	100 mg/l	100	100	100	140	140	140	Oil	10 mg/l	10	10	10	20	20	20	Manganese	0.05 mg/l	100	100	100	100	100	100	Nitrate	50 mg/l	-	-	-	2.2	0.0	0.0	Copper	2 mg/l	100	100	100	100	100	100	Softness	-	10	10	10	10	10	10	Phenolphthalein acidity	-	0	0	0	0	0	0	Total acidity	-	0	0	0	0	0	0	Free Chlorine	-	100	100	100	100	100	100	Fluoride	-	100	100	100	100	100	100
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	<ul style="list-style-type: none"> Lightning protection should be installed at all areas used to store bulk fuel and other flammables; 	<p>Installed at fuel depot.</p>	 <p>Constructed bunded hardstand with containment for 110% of the volume of stored fuel and equipped with oil-water separator. Installed lightning protection post.</p>																																																																																																																																																								
	<ul style="list-style-type: none"> The fuel storage facility should be constructed on bunded hardstand with containment sufficient for 110% of the volume of the single largest tank; 	<p>Equipped.</p>	 <p>Constructed bunded hardstand with containment for 110% of the volume of stored fuel and equipped with oil-water separator. Installed lightning protection post.</p>																																																																																																																																																								
	<ul style="list-style-type: none"> Discharges from this bunded area should pass through an oil-water separator; 	<p>Installed</p>	 <p>Constructed bunded hardstand with containment for 110% of the volume of stored fuel and equipped with oil-water separator. Installed lightning protection post.</p>																																																																																																																																																								
	<ul style="list-style-type: none"> Spill Response Plan should be developed and implemented; (conducted awareness training and deliver pamphlet to relevant employees in the plant) 	<p>Approved and implemented</p>	 <p>Develop training materials for spill control response</p>  <p>Conducted training and drill for Spill Response Procedure</p>   <p>MSDS Material Safety Data Sheets Your Best to Chemical Safety Material Safety Data Sheets Know what you're working with</p>																																																																																																																																																								

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Total Suspended Solid (TSS)	Max 300 mg/l	40	30	111	No alarm water detected	No alarm water detected	111																																																																																		
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Total Nitrogen	10 mg/l	-	-	-	No alarm water detected	No alarm water detected	0.02																																																																																		
Total Sulfate	60.20 mg/l	-	-	-	No alarm water detected	No alarm water detected	0																																																																																		
Total Phosphorus	0 mg/l	0.01	0.03	0.04	No alarm water detected	No alarm water detected	0.03																																																																																		
Oil and Grease	10 mg/l	0.4	0.2	0.2	No alarm water detected	No alarm water detected	0.2																																																																																		
	<ul style="list-style-type: none"> Sanitary wastewater (includes toilet, sink, shower) should be discharged to the wastewater treatment plant and not be directly discharged to any water bodies. Kitchen flows should be discharged for treatment at dedicated grease trap / water purification unit and not be directly discharged to any water bodies. 	Constructed Bio Tank for treatment of sanitary wastewater.	 																																																																																						
	<ul style="list-style-type: none"> Treated wastewater will be monitored monthly at the centralized treated wastewater tank to check compliance with the NEQEG on BOD, COD, pH, SS, oil and grease, TN, TP and residual chlorine and monitored annually for compliance with the full list of parameters on the NEQEG for Wastewater, Storm Water Runoff, Effluent and Sanitary Discharges (General Application). Sludge generated from the wastewater treatment units will be dewatered to meet with the Myanmar NEQEG for Bio solids and Sludge Disposal before disposal to the non-hazardous solid waste management facility. Sludge samples from each modular tank will be checked yearly for compliance with the NEQEG for Bio solids and Sludge Disposal. 	Conducted and monitored by LQC result documented (See Section 3.2.2 for water result)																																																																																							

**Data from Environment shared google drive*

Notice: Presently all the discharge from bund wall areas directly channel to sedimentation pond.

3.2.4 Evaluation

The establishment of sewage and sanitary waste management and storm water management is executing in plant site. Since the dry process is used for the cement production and the second line is also adopted a similar dry process as the first line, do not generate wastewater from first line and second line production. Discharge sanitary wastewater from plant office and household accommodation are diverted for treatment at the wastewater treatment plant. Treated wastewater from water treatment plant are monitored monthly in compliance with the NEQEG guideline. Wheel washing bay shall be installed at the cement plant guardhouse to avoid cement trail trucks tracking dirt onto public sealed roads and generating dust.

3.3 Waste Management Monitoring

3.3.1 Generation of Non- Hazardous Waste

In Shwe Taung Cement Factory, collect non-hazardous waste generated from plant site and accommodation area every day and dispose them to Temporary Non-hazardous Storage Area. For kitchen wastes, compost or use as animal feed in nearby villages. On the other hand, dispose laboratory and clinical wastes to Meikhtila Incinerator, Meikhtila District, Mandalay Region, approved by Meikhtila City Development Committee and have plan to dispose hazardous wastes to Golden Dowa Eco-system Myanmar Co., Ltd., Accredited Waste Management Company. Figure 15 and 16 shows location map of waste disposal area and waste collection points.

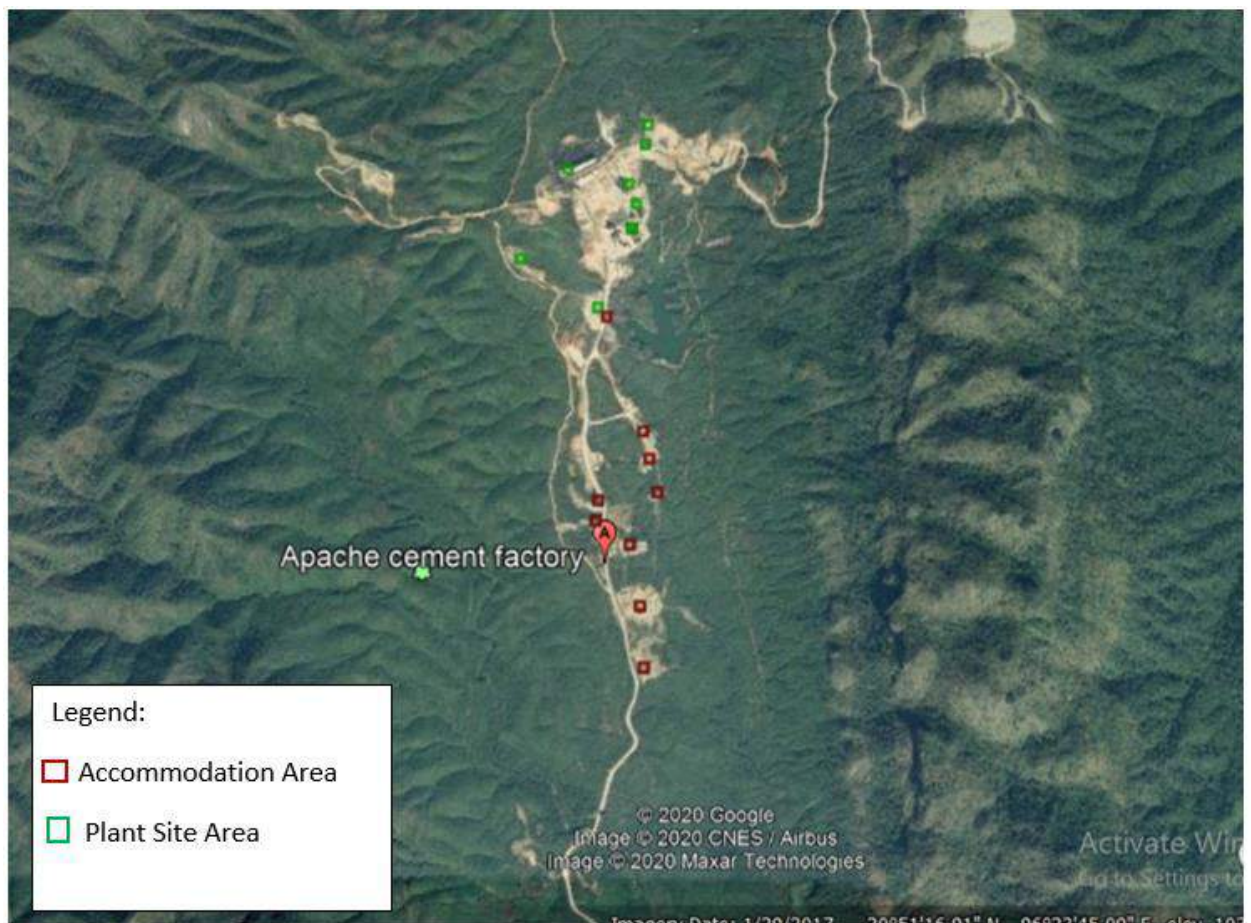


Figure14 - Location Map of Collection Points of All Generated Wastes from Plant Site and Accommodation Area



Figure 15 - Location Map of Disposal Sites for Waste from Plant and Accommodation Area



Figure 16 - Location Map of Scrap Yard Area

Table 16 – Generated Non-Hazardous Waste

STC Non-hazardous Waste Generated in July 2023 – December 2023		
Month	Weight (kg)	Remark
July 2023	18040	Temporary Non-hazardous Solid Waste Storage Area
August 2023	18760	
September 2023	17520	
October 2023	14380	
November 2023	19880	
December 2023	10961	

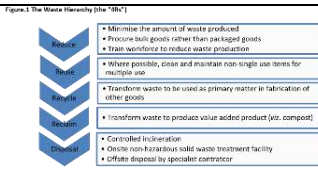

3.3.2 Generation of Hazardous Waste

Table 17 – Generated Hazardous Waste





STC Generated Hazardous Waste and Scrap Materials						
Sr.	Date	Type of Waste	Quantity	Amount (kg)	Treatment Facility	Remarks
1	14 Sep 2023	Clinical, Laboratory and Contaminated Oil rags	1600 kg	Meikhtila Municipal Incinerator	Disposal	
2	16 Dec 2023	Clinical, Laboratory and Contaminated Oil rags	540 kg	Meikhtila Municipal Incinerator	Disposal	

3.3.3 Waste Management Mitigation Measures

Table 18 – Waste Management Mitigation Measures

Affected Aspect	Mitigation Measures	Action Taken	Photos																																																																			
Waste Management	A waste management plan (WMP) for the project has been developed that include the following as a minimum:	Approved waste management	 <p>Figure 1: The Waste Hierarchy (5R's)</p> <ul style="list-style-type: none"> • Minimise the amount of waste produced • Produce bulk goods rather than packaged goods • Train workforce to reduce waste production • Where possible, clean and maintain non-single use items for multiple use • Transform waste to be used as primary matter in fabrication of other goods • Transform waste to produce value added product (i.e. compost) • Controlled Incineration • Dispose non-hazardous solid waste treatment facility • Offsets disposed by specialist contractor 																																																																			
	<ul style="list-style-type: none"> • A waste inventory should be created to establish the types of wastes; 	Established (dispose Non-hazardous waste to Temporary N-H Solid Waste Storage area whereas Hazardous waste will be disposed to DOWA, accredited waste management company. Clinical and Laboratory waste are disposed to Meikhtila Incinerator, approved for disposal by Meikhtila City Development Committee)	<p style="text-align: center;">STC Non-hazardous Waste Generated in 2020</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Month</th> <th>Weight (kg)</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>January</td> <td>16,020</td> <td>Temporary Non-hazardous Solid Waste Storage Area</td> </tr> <tr> <td>February</td> <td>14,900</td> <td>Temporary Non-hazardous Solid Waste Storage Area</td> </tr> <tr> <td>March</td> <td>14,500</td> <td>Temporary Non-hazardous Solid Waste Storage Area</td> </tr> <tr> <td>April</td> <td>17,420</td> <td>Temporary Non-hazardous Solid Waste Storage Area</td> </tr> <tr> <td>May</td> <td>16,180</td> <td>Temporary Non-hazardous Solid Waste Storage Area</td> </tr> </tbody> </table> <p style="text-align: center;">STC Generated Hazardous Waste</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Sr.</th> <th>Date</th> <th>Type of Waste</th> <th>Quantity</th> <th>Amount (kg)</th> <th>Treatment Facility</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Feb 2019</td> <td>Used Oil (Grease from PME & HME)</td> <td>23 Drums</td> <td>33 (100) = 3,300</td> <td>Top Star Co. Ltd.</td> <td>Re-Sale</td> </tr> <tr> <td>2</td> <td>25 June 2019</td> <td>Clinical and Laboratory Waste</td> <td>7</td> <td>7 (20) = 140</td> <td>Meikhtila Municipal Incinerator</td> <td>Disposal</td> </tr> <tr> <td>3</td> <td>28 Sep 2019</td> <td>Clinical and Laboratory Waste</td> <td>5</td> <td>5 (20) = 100</td> <td>Meikhtila Municipal Incinerator</td> <td>Disposal</td> </tr> <tr> <td>4</td> <td>Oct 2019</td> <td>Used Oil (Grease from PME & HME)</td> <td>33 Drums</td> <td>33 (100) = 3,300</td> <td>Top Star Co. Ltd.</td> <td>Re-Sale</td> </tr> <tr> <td>5</td> <td>1 May 2020</td> <td>Clinical, Laboratory and Operation Waste</td> <td>5</td> <td>5 (20) = 100</td> <td>Meikhtila Municipal Incinerator</td> <td>Disposal</td> </tr> <tr> <td>6</td> <td>February 2020</td> <td>Used Oil (Grease from PME & HME)</td> <td>25 Drums</td> <td>25 (100) = 2,500</td> <td>Top Star Co. Ltd.</td> <td>Re-Sale</td> </tr> </tbody> </table> 	Month	Weight (kg)	Remark	January	16,020	Temporary Non-hazardous Solid Waste Storage Area	February	14,900	Temporary Non-hazardous Solid Waste Storage Area	March	14,500	Temporary Non-hazardous Solid Waste Storage Area	April	17,420	Temporary Non-hazardous Solid Waste Storage Area	May	16,180	Temporary Non-hazardous Solid Waste Storage Area	Sr.	Date	Type of Waste	Quantity	Amount (kg)	Treatment Facility	Remarks	1	Feb 2019	Used Oil (Grease from PME & HME)	23 Drums	33 (100) = 3,300	Top Star Co. Ltd.	Re-Sale	2	25 June 2019	Clinical and Laboratory Waste	7	7 (20) = 140	Meikhtila Municipal Incinerator	Disposal	3	28 Sep 2019	Clinical and Laboratory Waste	5	5 (20) = 100	Meikhtila Municipal Incinerator	Disposal	4	Oct 2019	Used Oil (Grease from PME & HME)	33 Drums	33 (100) = 3,300	Top Star Co. Ltd.	Re-Sale	5	1 May 2020	Clinical, Laboratory and Operation Waste	5	5 (20) = 100	Meikhtila Municipal Incinerator	Disposal	6	February 2020	Used Oil (Grease from PME & HME)	25 Drums	25 (100) = 2,500	Top Star Co. Ltd.	Re-Sale
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<ul style="list-style-type: none"> Segregate wastes and recycle wherever possible; 	<p>Segregated scrap materials for resale and reuse (See Figure----- for Scrap Yard Area)</p>	<p style="text-align: center;">Waste materials that can be recycle or recover</p> 
<ul style="list-style-type: none"> Hazardous wastes should be segregated and disposed separately from non-hazardous wastes using a license contractor; 	<p>Hazardous waste treatment by DOWA and non-hazardous waste, municipal waste disposed at Temporary Non-hazardous solid waste storage area. Medical and laboratory waste dispose to Meikthila Incinerator, approved by Meikthila City Development Committee)</p>	<p>(Medical waste) (Receipt of transport)</p>  <p>Contracted DOWA as transporter and disposal for all Hazardous waste generated at site</p> <p>DOWA GOLDEN DOWA ECO-SYSTEM MYANMAR Waste Management Services</p> <p style="text-align: center;">motivate our planet</p>
<ul style="list-style-type: none"> Hazardous wastes shall be labelled and stored in sealed containers that are stored on bunded hardstand. Hazardous wastes that are unsuitable for disposal in the cement kiln (such as waste oil drums) shall be returned to the manufacturer or trucked to Mandalay for appropriate disposal at a hazardous waste facility; 	<p>Commissioned and contracted DOWA</p>	<p>(Medical waste) (Receipt of transport)</p>  <p>Contracted DOWA as transporter and disposal for all Hazardous waste generated at site</p> <p>DOWA GOLDEN DOWA ECO-SYSTEM MYANMAR Waste Management Services</p> <p style="text-align: center;">motivate our planet</p>
<ul style="list-style-type: none"> Waste oil should be used for kiln start-up; 	<p>Resale by ADM</p>	
<ul style="list-style-type: none"> Organic waste for composting or use as animal feed in nearby villages; 	<p>Organic waste collected by locals for as animal feed</p>	

	<ul style="list-style-type: none"> Waste suitable for use as fuel in the cement plant should be considered; and 	Used waste oil resale to local merchant	
	<ul style="list-style-type: none"> The existing landfill is not lined and should be only used for inert (non-reactive) and non-hazardous waste only. 	Implemented (Constructed Old Temporary Non-hazardous solid storage area for disposing Non-hazardous waste and operated it from 2012 to June 2019. Replantation in old place after closure. After inspection of New Temporary Non-hazardous solid storage area from ECD and governmental organizations in 5 July 2019, operate that one until now.)	 <p>Former landfill was backfilled with top soil and conducted re-plantation.</p>  <p>Constructed Temporary Solid Non-hazardous wastes storage equipped with clay liner..</p>  <p>Temporary Solid Non-hazardous wastes storage inspected by ECD and other government entities for the approval of EIA.</p>

3.3.4 Assessment

Implementing principles of the waste hierarchy in the most responsible manner (reduce, reuse, recycle, reclaim, dispose) in the plant site by conducting tool box talk, delivering pamphlet, offering waste bin in each plant site department and accommodation area, undertaking simultaneous mass housekeeping 9 campaigns occasionally, using waste manifest form, daily conducting housekeeping in the site and surrounding area to get awareness on waste reduction, segregation, collection and disposal practices that avoid impacts on the physical, biophysical and social environments.

4.0 Biodiversity Action Plan Implementation

STC is continuous implementing Biodiversity Action Plan (BAP) with regular Transect Survey, Invasive Survey, Wildlife Market Survey, maintaining the 20% Ecosystem Restoration Plantations and 3 nurseries, and raising biodiversity conservation activities around the cement plant operation.

Table 19 - Biodiversity Action Plan Implementation for 2023

Biodiversity Action Plan Implementation

No.	Type of Survey	Implementation Month	Frequency	Process	Remark
1	Transect Survey	September	Quarterly	Done	-
		December	Quarterly	Done	-
2	Invasive Species Survey	July	Quarterly	Done	-
		December	Quarterly	Done	-
3	Wildlife Market Survey	July	Quarterly	Done	-
		September	Quarterly	Done	-

Table 20 - Wildlife Market Survey

Date	Village	Village Tract	Township	Region	No. of HH Conducted Survey
11 September 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	20
12 September 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	20
13 September 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	10
14 September 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	10
15 September 2022	Pyi Nyaung	Pyi Nyaung	Thazi	Mandalay	10

Note: 30 % of total HH was conducted for Wildlife Market Survey (Interview Survey).

Market Survey Record at Pyi Nyaung Market and Pyi Nyaung Village



Figure 17 – Market Survey on Wild life

Table 21 - Invasive Species Survey

Date	Location	Species Found	Density	Control Measure
24 July 2023	47Q 228457 E 2308612 N	<i>Bidens pilosa</i> , <i>Ageratum conyzoides</i>	High	Mechanical
24 July 2023	47Q 228537 E 2309146 N	<i>Ziziphus jujuba</i> , <i>Chromolaena odorata</i> , <i>Mimosa pudica</i>	Low	No need to be clean
24 July 2023	47Q 228912 E 2310128 N	<i>Mimosa pudica</i> , <i>Chromolaena odorata</i> , <i>Leucaena leucocephala</i> , <i>Oroxylum indicum</i>	Low	No need to be clean
11 December 2023	47Q 228239 E 2309796 N	<i>Mimosa pudica</i> , <i>Leucaena leucocephala</i> , <i>Chromolaena odorata</i> , <i>Oroxylum indicum</i>	Low	No need to be clean
11 December 2023	47Q 228579 E 2308897 N	<i>Mimosa pudica</i> , <i>Bidens pilosa</i>	Medium	Mechanical
11 December 2023	47Q 228377 E 2309312 N	<i>Leucaena Leucocephala</i> , <i>Chromolaena odorata</i> , <i>Ziziphus jujuba</i> , <i>Mimosa pudica</i> , <i>Ageratum conyzoides</i>	High	Mechanical



Leucaena leucocephala



Chromolaena odorata

Figure18 – Invasive Species Survey

Invasive Species Survey Map at Shwe Taung Cement

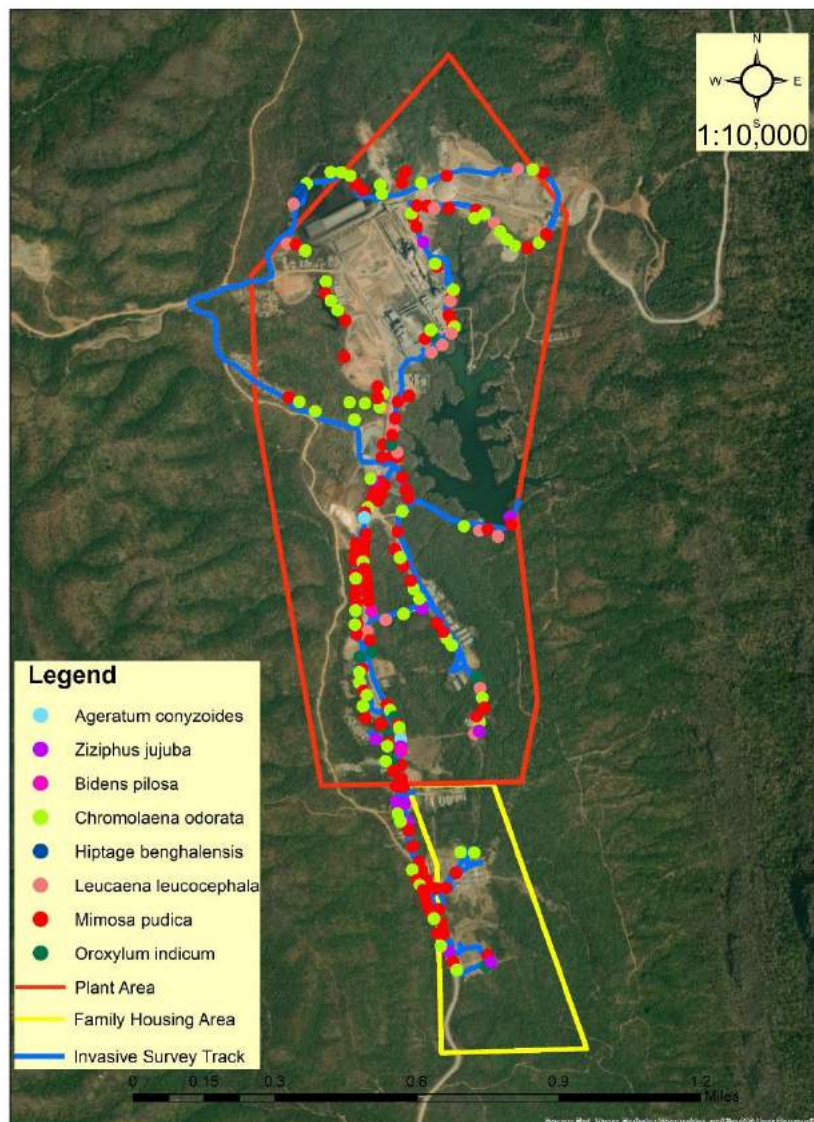


Figure 19- Map of Invasive Species Occurrence at Cement Plant

Table 22 – Ecosystem Restoration Plantation List of previous years

Plantation List									
No	Name of Operation	Acre	20% of Replacement	No. of Plants	Progress in 2016	Progress in 2017	Progress in 2018	Progress in 2019	Remark
1	Cement Plant	400	-	-	11,000	6500	225	1,980	Acacia, Sein Talone, Tamalan, Khayae, Kankaw, Sein Pan, Tamar, Kokko, Teak, Padauk, Bamboo, Pyinkado
2	Staff housing and Parking lot	55	-	-	1,200	550	35	2,150	Sein Pan, Kokko, Banda, Si Thapay
3	Limestone	600	120	89550	-	5,950	60500	23,100	Acacia, Bamboo, Mangium, Yinmar, Mazali, Seinpan, Kokko, Teak, Pinlaekabue
4	Mudstone	165	33	17,820	-	12,000	5820	540	Teak
5	Red Clay	140	20	8,400	-	-	-	8,400	Acacia, Bamboo, Mangium, Yinmar, Mazali, Seinpan, Kokko, Teak, Pinlaekabue
6	Power Transmission Line	2.668	2.668	1,120	-	-	-	1,120	
7	Proposed Water Pipe Line	1.04496	1.04496	420	-	-	-	420	

STC has successfully implemented an ecosystem restoration initiative by establishing plantations for land leased agreement with the government since 2019. The maintenance of these plantations is diligently carried out through routine operations, including weeding, patching, and fire protection across all areas. In August 2023, STBM undertook the patching of 28165 plants within the plantation, followed by thorough weeding activities, fertilizing in August, survival counting in December of the same year.

Table 23- Patching Record at Ecosystem Restoration Plantation in 2023

Name of Operation	Plantation Acre	Established Year	Location	Number of Patching in 2023	Name of Patched Species
Mudstone	33	2017	Ku Byin Reserved Forest	3,564	Mazali, Kokko, Thit Padauk
Limestone	15	2017	Ku Byin Reserved Forest	1,192	Mazali, Kokko, Thit Padauk
Limestone	50	2018	Ku Byin Reserved Forest	15,000	Mazali, Kokko, Thit Padauk
Limestone & Red clay and others	100	2019	Pyi Nyaung Reserved Forest	8,400	Mazali, Kokko, Thit Padauk, Teak, Sein Pan
Total	198	198		28,156	

Figure 20 – Maintenance Process at Ecosystem Restoration Plantation in 2023



Fertilization and Ploughing Process



Record of Second Weeding



SHWE TAUNG
Building Materials

**SHWE TAUNG CEMENT COMPANY
LIMITED**

Bi-Annual Environmental Monitoring Report



SHWE TAUNG
CEMENT CO.,LTD.



Third Weeding Operation at Ecosystem Restoration Plantation

Camera Trap Installation

The environmental team of STC successfully installed a total of 18 camera traps, strategically placing 5 at the Limestone Quarry, 3 at the Mudstone Quarry, and 4 at the Cement Plant Area, with an additional 6 at the adjacent area. The traps were securely installed using steel weir and bolt nut mechanisms without cases. The selection criteria for trap placement were based on tracks and signs, such as scratches, footprints, and feces of wildlife species, as well as proximity to food sources like fruiting trees and water sources. The designated key performance indicator (KPI) for the camera traps is to achieve 60 days of trapping per year. The targeted species for monitoring includes the Chinese pangolin, elongated tortoise, Bengal slow loris, red muntjac, and various other wildlife species.

The camera traps were set up during the period from October 21 to October 26, 2023. The environmental team plans to monitor biodiversity richness seasonally for continuous observation. After the installation, the team retrieved all 18 camera traps. The recorded data revealed several wildlife species, including the red muntjac near Sedimentation Pond 1 of STC. Notably, some camera traps captured images of humans and domestic animals.

The documented wildlife species include jungle fowl (LC), red muntjac (LC), and rhesus monkey (LC). Although the IUCN status of the red muntjac is classified as Least Concern (LC), its population has experienced a decline due to hunting and poaching by local communities.

Table 24- Installation of Camera Trap at Cement Plant and Quarries

Camera Trap Setup Record by STC & STM						
Camera Name	Start Date	End Date	Latitude	Longitude	Status of Wildlife	Status of Others
CT01	24/10/2023	21/11/2023	20°52'19.90"N	96°23'46.27"E	None	None
CT02	24/10/2023	21/11/2023	20°52'13.87"N	96°23'55.73"E	Jungle Fowl, Red Muntjac, Rhesus Monkey	None
CT03	24/10/2023	21/11/2023	20°52'2.66"N	96°23'56.52"E	Red Muntjac, Rhesus Monkey	Buffalo
CT04	25/10/2023	21/11/2023	20°52'49.80"N	96°24'9.06"E	None	None
CT05	25/10/2023	21/11/2023	20°52'49.53"N	96°24'18.62"E	None	None
CT06	25/10/2023	21/11/2023	20°52'20.55"N	96°24'11.23"E	None	Human
CT07	23/10/2023	21/11/2023	20°52'2.34"N	96°23'46.05"E	Lost	Lost
CT08	23/10/2023	21/11/2023	20°51'50.82"N	96°23'47.21"E	None	Human
CT09	23/10/2023	21/11/2023	20°51'48.35"N	96°23'48.30"E	Lost	Lost
CT10	23/10/2023	21/11/2023	20°51'42.35"N	96°23'49.74"E	None	None
CT11	21/10/2023	21/11/2023	20°51'30.94"N	96°23'33.17"E	None	Human, Buffalo
CT12	21/10/2023	21/11/2023	20°51'44.37"N	96°23'33.88"E	None	Human
CT13	21/10/2023	21/11/2023	20°51'50.15"N	96°23'33.61"E	Jungle Fowl	None
CT14	26/10/2023	21/11/2023	20°51'49.01"N	96°22'48.78"E	None	Human
CT15	26/10/2023	21/11/2023	20°51'54.12"N	96°22'41.00"E	None	None
CT16	26/10/2023	21/11/2023	20°52'5.15"N	96°22'34.50"E	None	Human
CT17	25/10/2023	21/11/2023	20°52'34.53"N	96°24'7.02"E	None	Human
CT18	25/10/2023	21/11/2023	20°52'47.48"N	96°24'11.84"E	Rhesus Monkey, Spotted Dove	None



Figure 21 - Location Map of Camera Trap Installation

Figure 22- Photo Record of Camera Trap



5.0 Corporate Social Responsibility

STC cement plant implements Corporate Social Responsibility (CSR) to communities and release newsletter in quarterly, see in Appendix-D.

6.0 Conclusion and Recommendation


STC cement plant demonstrates the implementation of Environment Monitoring Plan in which they are operating and has properly assessed the key potential environmental and social impacts associated with the cement plant operation. It is ensuring that the Myanmar environmental legislative compliance and IFC standards of good practice during the cement plant expansion project and operations in Thazi Township, Mandalay Region.

Mitigation measures are properly implemented as per stated in EMP, it is expected that the environmental and social impacts are managed by STC with robust environmental management system that is implemented by a well-resourced, integrated and competent HSE staffs as per compliance of STC Cement Plant EIA report.

The Environment Management Plan concludes that no major direct impacts are anticipated from this Project and all environmental impacts have been properly and progressively mitigated. These monitoring results will be properly communicated to stakeholders, especially local community, as per Stakeholders Engagement Plan when the travel restriction is allowed due to COVID19 situation.

7.0 Appendix

APPENDIX-A



NANOVA
Co., Ltd.
Medical, Scientific & Industrial

Field Service Report

Date: 15.1.2020

Customer Details

Shwe Taung Cement
Factory
Person Contacted
Tel/Fax No.

Instrument Details

Brand	SKC, EDC
Product Line	Ambient Air Monitoring System
Model	EPAS
Serial	919217

Type of Work

Billable
 Contract
 Warranty
 Installation
 Maintenance
 Service
 Operator Training
 Others

Complaint Detail

Complain Person	Complain Ph No.	Complaint Time:
Saw Khay Khay Tun - Shwe Taung Cement Factory (Apehe)		

Date	Engineers	Engineer		Total
Person	Nanda Ma	Saw Khay		

Action Performed

- *Cleaning PM₁₀, 2.5 Inspector sleeve and cap part.
- *Cleaning PM₁₀, 2.5 Sensor optic.
- *Adjust CO₂, NO₂, SO₂ sensor milli volts.

Part Used

No.	Description	Part No.	Qty	Price

Final Status

Complete
 Ongoing
 Monitoring
 Follow-up
 Other

Customer's Details

Signature	<i>Khay</i>
Name	Khay Khay Tun
Rank	Senior Environmental Engineer

0150

Engineer's Details

Signature	<i>Nanda Ma</i>
Name	Nanda Ma Saw Khay
Rank	Service Engineer

Yangon: 33-B, Pyithaung Su Yeiktha Street, Dagon Tsp. Tel 01-221 347, 01-211 470, 01-230 2075 Fax 01-2316400
 Nay Pyi Taw: Za /31, Ziwaka Say Sine Tan, The Phay Khone, Zabu Thiri Tsp, Pyinmanar. Tel 067 810 8083, 067-810 8179
 Email: contact@nanovapteltd.com helpline 09 421 360000 , 09 451 360000

Figure- Field Service Report for Haz-Scanner by Supplier on 15 January 2020 (1st time)



SHWE TAUNG
Building Materials

**SHWE TAUNG CEMENT COMPANY
LIMITED**

Bi-Annual Environmental Monitoring Report



SHWE TAUNG
CEMENT CO. LTD.

NANOVA Co., Ltd. **Field Service Report**
Medical Scientific Industrial

Date: 5.3.2020

Customer Details: Apache Cement Factory Instrument Details: 00856

Brand	<u>SKC</u>	
Product Line	<u>Air Monitoring System</u>	
Model	<u>EPAS</u>	Serial <u>919217</u>

Type of Work
 Billable Contract Warranty Installation Maintenance Service Operator Training Others

Complaint Detail

Complain Person	Complain Ph No.	Complaint Time:
<u>Ma Khaing Khaing Tun</u>	<u>09255113077, 09976099928</u>	<u>1</u>

Date					Total
Person					
<u>Nanda My</u>	<u>TSE</u>				
<u>Saw Htoo</u>	<u>TSE</u>				

Action Performed

check the PM value with span calibrator.
check the PM value with zeroing filter.
PM calibration. (Software) ok
Remark: Clean PM cap print, sleeve after every monitoring.

Part Used

No.	Description	Part No.	Qty	Price
<u>1.</u>	<u>Zeroing filter.</u>			
<u>2.</u>	<u>Span Calibrators.</u>			

Final Status
 Complete Ongoing Monitoring Follow-up Other

Customer's Details

Signature	<u>Khaing</u>
Name	<u>Khaing Khaing Tun</u>
Rank	<u>Senior Environmental Engineer</u> <u>Shwe Taung Building Materials</u>

Engineer's Details

Signature	<u>Saw Htoo</u>
Name	<u>Saw Htoo</u>
Rank	<u>Service Engineer</u>

22-A, Shan Yeikhar Street, Sanchaung Township, Tel: +95 (1) 230 4901, 230 4902
 Za /30, Ziwaka Say Sine Tan, Tha Phay Khone, Fyinnanar Tel 067 810 8083
 Mandalay Block 4, No.15, 73 Street, Mingalar Mandalay Myothit (1) Tel 09 791 360000
 Email contact@nanovapteltd.com Website: www.nanova-scientific.com
 helpline 09 421 360000, 09 451 360000

Figure- Field Service Report for Haz-Scanner by Supplier on 5 Mar 2020 (2nd time)

NANOVA Co., Ltd. **Field Service Report**
 Medical Scientific Industrial

Date: 23.3.2020

Customer Details: Apsara Cement Factory Instrument Details: **00861**

Brand	<u>SKC, EX</u>	
Product Line	<u>Ambient Air Monitoring System</u>	
Model	<u>EPAS</u>	Serial <u>919217</u>

Type of Work
 Estimate Contract Warranty Installation Maintenance Service Operator Training Others

Complaint Detail

Complain Person	Complain Ph No.	Complaint Time
<u>09976049928</u>		<u>1</u>

Date	<u>23.3.2020</u>				Total
Person	<u>Sun Htoo</u>	<u>Engined</u>			

Action Performed

- Check the air flow and filter, tubing line.
- Replace filter (more gas) with new/complete set.
- Check the calibration for sensors (CO₂)
- cleaning the tubing line (air)
- cleaning PM impacter and bucket

Part Used

No.	Description	Part No.	Qty	Price
<u>1.</u>	<u>gas filter & u</u>			

Final Status
 Complete Ongoing Monitoring Follow-up Other

Signature	<u>[Signature]</u>
Name	<u>Winn G. Aung</u>
Rank	<u>SC</u>

Signature	<u>[Signature]</u>
Name	<u>Sun Htoo</u>
Rank	<u>Service Engineer</u>

Yangon: 22-A, Shan Yekhar Street, Sanchaung Township, Tel +95 (1) 230 4901, 230 4902
 Nay Pyi Taw: Za 730, Ziwaka Say Sine Yan, Tha Phay Khona, Pyin Ommar, Tel 067 810 8083
 Mandalay: Block 4, No. 15, 73 Street, Mingalar Mandalay Myothit (1), Tel 09 791 360000
 Email: contact@nanovaptltd.com Website: www.nanova-scientific.com
 helpline 09 421 360000, 09 451 360000

Figure- Field Service Report for Haz-Scanner by Supplier on 23 Mar 2020 (3rd time)



SHWE TAUNG
Building Materials

**SHWE TAUNG CEMENT COMPANY
LIMITED**

Bi-Annual Environmental Monitoring Report



SHWE TAUNG
CEMENT CO.LTD.

NANOVA
Co.,Ltd.
Medical Scientific Industrial

SYSTEM HEALTH CHECK REPORT

Information

Instrument.....	Hazscanner
Model.....	EPAS
Serial number.....	919217
Unit Sensor.....	CO,NO2,CO2,SO2,O3 PM10,PM2.5
Customer.....	Shwe Taung Cement Factory
Date.....	2020 August 7th

Check List

Physical Check.....	OK
Supply Voltage Check.....	OK
PM 10 Air Flow Check.....	OK
PM2.5 Air Flow Check.....	OK
Internal Backup Battery Voltage Check.....	OK
NO2,O3,CO2 Sensor Health Check.....	Moderate
CO,SO2 Sensor Health Check.....	Still Good
Lithium Battery Voltage Check.....	OK
Data Logging Check.....	OK
Data Downloading Check.....	OK
Precipitation Sensor Check.....	OK

Recommend

Need to replace new acid gas scrubber (In every 6 months)
 Need to replace internal filters (In every 6 months)
 Need to perform factory calibration or in-field calibration.(Annually)



 Performed by Pho Saw Htoo Technical Service Engineer NANOVA CO.,LTD	 Approved by Myo Oo Technical Service Manager NANOVA CO.,LTD
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Figure- Field Service Report for Haz-Scanner by Supplier on 7 August 2020



SHWE TAUNG
Building Materials

**SHWE TAUNG CEMENT COMPANY
LIMITED**

Bi-Annual Environmental Monitoring Report



SHWE TAUNG
CEMENT CO. LTD.

NANOVA Co., Ltd. **Field Service Report**
Medical, Scientific & Industrial Date: 3.12.2020

Customer Details
Shwe Taung Cement Factory
Person Contacted:
Tel/Fax No:

Instrument Details
Brand: EDC, SKC
Product Line: Ambient Air Monitoring System
Model: EPAS
Serial: 919217

Type of Work
 Billing Contract Warranty Installation Maintenance Service Operator Training Other

Complaint Detail
Complain Person: Ma Khain Khain Tun
Complain Ph No:
Complaint Time: / /

Date	Partion	Engineer	Total
3.12.2020	Raw Mills	Engineer	1

Action Performed
- Check the sensor health and raw.
- Adjust the sensor drift value. (ok)
- Do clean air sensor. (ok)
Note: Factory Calibration need every 12 months.

Part Used

No.	Description	Part No.	Qty	Price
1	Van extra foam Vortex check.			

Final Status
 Complete Ongoing Monitoring Follow-up Other

Customer's Details
Signature: [Signature]
Name: Khain Khain Tun
Rank: Senior Environmental Engineer
Shwe Taung Cement Factory
Yangon, Myanmar
May Pye Taw

Engineer's Details
Signature: [Signature]
Name: [Name]
Rank: Service Engineer

0012

22 A-Shan Yek Thar Street, Sanchung Township, Tel: +95(1)230 4901, 230 4902
2a /30, Ziwaka Say Sine Tan, Thu Phay Khone, Pyin Oanar, Tel 067 610 8053
Email contact: shwe.taung@shwe.taung.com

Figure- Field Service Report for Haz-Scanner by Supplier on 3 December 2020



SHWE TAUNG
Building Materials

**SHWE TAUNG CEMENT COMPANY
LIMITED**

Bi-Annual Environmental Monitoring Report



SHWE TAUNG
CEMENT CO.LTD.

NANOVA Co., Ltd.
Medical, Scientific & Industrial

Field Service Report

Date: 20.6.2022

Customer Details

Shwe Taung Cement Factory
Person Contacted
Tel/Fax No:

Instrument Details

Brand EOC, SKC
Product Line Ambient Air Monitoring System.
Model EPAS Serial 919217

Type of Work

Billable Contract Warranty Installation Maintenance Service Operator Training Others

Complaint Detail

Complain Person
09-255113077
Complain Ph No.
Complaint Time:

Date	Person		Total
<u>20.21.6.22</u>	<u>Saw Hko Engineer</u>		

Action Performed

- Check the air flow for PM A, PM B.
- Check the whole system running condition.
Remark: Must do Factory Calibration.
Must do Pump for PM B sensors.

Part Used

No.	Description	Part No.	Qty	Price

Final Status

Complete Ongoing Monitoring Follow-up Other

Customer's Details

Signature
Name
Rank

Engineer's Details

Signature
Name Saw Hko
Rank Service Engineer.

0374

Yangon 33-B, Pyihtaung Su Yeiktha Street, Dagon Tsp. Tel 01-221 347, 01-211 470, 01-230 2075 Fax 01-2316400
Nay Pyi Taw Za /31, Ziwake Say Sine Tan, Tha Phay Khone, Zabu Thiri Tsp. Pyinmanar. Tel 067 810 8083, 067-810 8179
Email contact@nanovapteltd.com helpline 09 421 360000 , 09 451 360000

Figure- Field Service Report for Haz-Scanner by Supplier on 20 June 2022

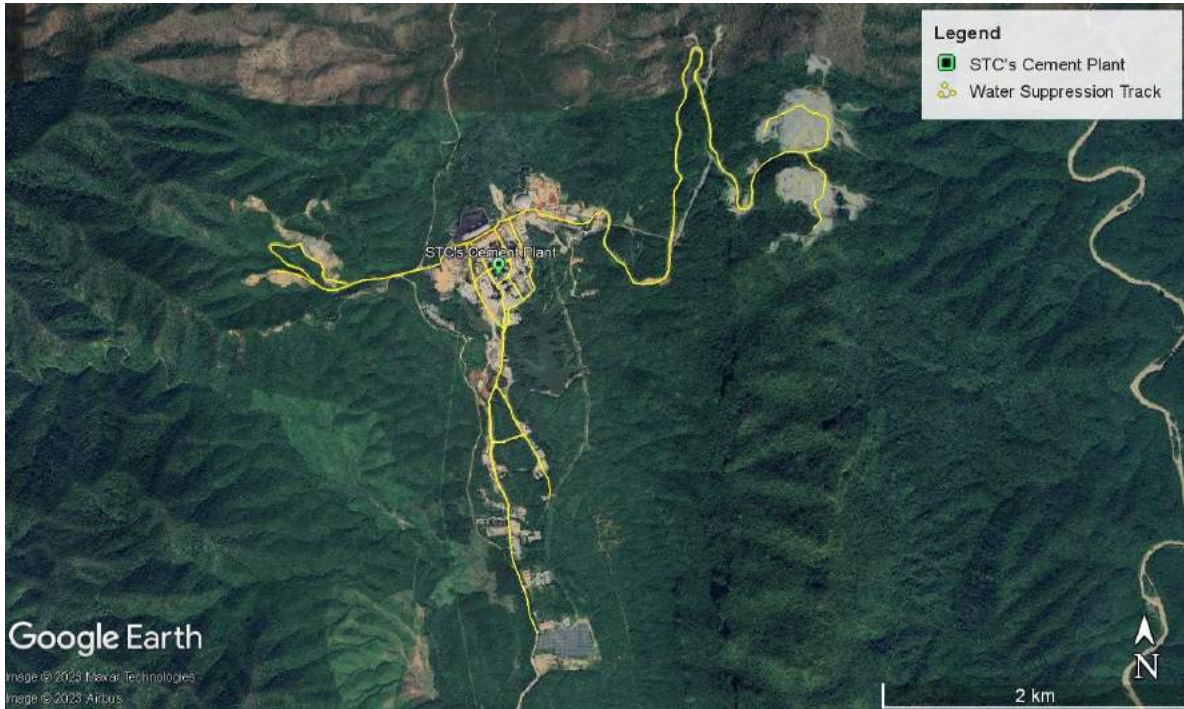


Figure- Water Suppression Map to mitigate dust emission in plant site

Table - Water Suppression Record from July to December 2023 to mitigate dust suppression in plant site.

Vehicle No.	Capacity of Tank (Gallons)	July		Aug		Sep		Oct		Nov		Dec	
		Total Loads	Water Consumption (gallons)	Total Loads	Water Consumption (gallons)	Total Loads	Water Consumption (gallons)	Total Loads	Water Consumption (gallons)	Total Loads	Water Consumption (gallons)	Total Loads	Water Consumption (gallons)
Water Truck No.1	3800 gal	-	-	-	-	-	-	-	-	-	-	-	-
Water Truck No.2	4000 gal	83	332000	31	124000	58	232000	70	280000	888	352000	62	2480000
Water Truck No.3	4000 gal	-	-	-	-	-	-	-	-	-	-	-	-
Water Truck No.4	4500 gal	103	463500	108	486000	100	450000	107	481500	114	513000	75	337500
Water Truck No.5	3000 gal	-	-	-	-	-	-	-	-	-	-	-	-
Total		186	795500	139	610000	158	682000	177	761500	1002	865000	137	2817500

Note: Source of water supply from Sedimentation Ponds

Table - Electrostatic Precipitator Maintenance Record

History of Maintenance (Electrical Department)									
Sr.	Date	Section	Location	Description	Root Cause	Action Taken	Job completion	Time	Action Team
							Date		
1	07-Jul-23	303	L1	Checking 303EP	Controller Damage	L1-303 EsP02 can't close main breaker, so we are check of rectifier door, SCR and controller. We are found of controller not good, so we are new change this controller from takeout EsP CP03. Now is ok.		2hr	Clinker Team
2	26-Jul-23	202	L1	Checking 202EP	Inlet Temperature Error/ DC Power Cable Damage	L1-202EsP inlet temperature do not show on CCR cause of DC power cable is cut off, so we are new cable laying and reconnect it.		1hr	Raw Meal
3	27-Jul-23	202	L1	Checking 202EP	Overload Fault Stop/ Bearing Damage	L1-202 EP cathode motor no2 overload fault stop cause of both side bearing are not good. So, we are changed both side bearing (6202) and then now it is running.		2hr	Raw Meal
4	02-Aug-23	202	L1	Checking 202EP	Temperature Sensor Checking	L1-202EsP inlet temperature sensor check and PM.		2hr	Raw Meal
5	21-Aug-23	303	L1	Checking 303EP	Motor Overhaul Service	L1-303EsP outlet rotary motor overhaul service and both sides bearing 6206(2nos) new change.		3hr	Clinker Team
6	30-Aug-23	303	L1	Checking 303EP	mA Increase/ SCR Damage	L1-303EsP01 mA suddenly high but voltage 0kV so we are checking because of SCR is not good and then we are SCR 2nos new replacement. Now it is ok.		1hr	Clinker Team
7	30-Aug-23	303	L2	Checking 303EP	Controller Damage	L2-303EP03 Controller Damage and Change with new.		2hr	Clinker Team
8	30-Aug-23	303	L1	Checking 303EP	SCR Damage	L1-303EsP03 are SCR 2nos new replacement and controller 1 nos new replacement. Will test run tomorrow.		2hr	Clinker Team
9	01-Oct-23	303	L1	Checking 303EP	Inlet Temperature Sensor Damage	L1-303 EsP inlet temperature not correct because of this temperature sensor damage, so we are new change K-type, 0-1200C°, L-900mm. Now is ok.		2hr	Clinker Team
10	08-Oct-23	303	L2	Checking 303EP	Reducer Damage/ Bearing Housing Damage	L2-303 EsP outlet chain conveyor 01 reducer damage also our motor key line and DE side bearing housing not good, so we are repair this bearing housing after run back it ok. Motor ampere Ia=7.2A,Ib=7.1A,Ic=6.9A.		2hr	Clinker Team
11	09-Oct-23	303	L2	Checking 303EP	Motor Key Line Damage	L2-303 EsP outlet chain conveyor 01,02 sparer motor key line repair 701 workshop.		2hr	Clinker Team



Bi-Annual Environmental Monitoring Report

12	10-Oct-23	303	L2	Checking 303EP	Preventive Maintenance	L1-303 all EsP insulator check, inspection and preventive maintenance.	4hr	Clinker Team
13	13-Oct-23	303	L2	Checking 303EP	Bearing Motor Damage	L2-303 EsP outlet chain conveyor 01 sparer motor key line repair, both sides bearing 6308 (2nos) new change and test run. Motor ampere 8.1A.	2hr	Clinker Team
14	19-Oct-23	303	L1	Checking 303EP	Checking	L1-303EsP inside checking together with Plant Reliability team. All DE and CE plates are good condition.	4hr	Clinker Team
15	01-Nov-23	202	L1	Checking 202EP	Overload Fault Stop	L1-202Esp C6 cathode rapping motor motor overload fault stop. So, we are checking motor condition. PME reducer is not work well.	1hr	Raw Meal
16	02-Dec-23	202	L1	Checking 202EP	Anode Rapping Motor Damage	L1-202 Esp anode rapping motor A1(180W) replacement and test running and then ampere testing.it is ok.	3hr	Raw Meal
17	13-Dec-23	303	L2	Checking 303EP	Motor Temperature High (Shutdown)	L2-303EsP outlet chain conveyor 02 motor new change because of this motor temperature high.	3hr	Clinker Team
18	14-Dec-23	303	L2	Checking 303EP	Motor Shift Key Line Damage	Chain conveyor no.2 motor shift key line under L2.303 Esp is bad, so remove rotor from motor and send to 701 machine shop.	2hr	Clinker Team

History of Maintenance (Plant Mechanical Department)

Sr	Start Date	Finished Date	M/C Code	M/C Name	Job Description	Remedy/analysis	Remark
1	01-07-2023	01-07-2023	1#202EP01	Electrostatic Precipitator	Rapping hammer reducer repair		
2	27-07-2023	28-07-2023	1#202EP01-c2	Electrostatic Precipitator	Lifting drive unit inspection		
3	06-10-2023	06-10-2023	1#202EP01	Electrostatic Participator	Inspection EP		
4	10-10-2023	14-10-2023	1#303EP01	Electrostatic precipitator	EP duct line welding		
5	19-10-2023	21-10-2023	1#202EP01	Electrostatic Precipitator	DE rapping drive device inspection and repair.		
6	19-10-2023	20-10-2023	1#202EP01	Electrostatic Precipitator	CE rapping drive device inspection and repair.		
7	20-10-2023	29-10-2023	1#202EP01	Electrostatic Precipitator	DE hammer shaft and lifting rod inspection and repair.		
8	20-10-2023	22-10-2023	1#202EP01	Electrostatic Precipitator	Inspect and adjust the DE hammer and Anvil alignment.		
9	21-10-2023	23-10-2023	1#202EP01	Electrostatic Precipitator	Inspect and adjust the CE hammer and Anvil alignment.		
10	21-10-2023	23-10-2023	1#202EP01	Electrostatic Precipitator	Inspect and adjust CE and DE plate gap.		
11	22-10-2023	24-10-2023	1#202EP01	Electrostatic Precipitator	Inspect and repair the inlet X- type distribution plate.		
12	27-10-2023	27-10-2023	1#303EP01	Electrostatic Precipitator	ESP CE hammer inspection and repair work		

13	11-11-2023	11-11-2023	1#202EP01	Electrostatic Precipitator	Bearing renew		
14	11-11-2023	11-11-2023	1#202EP01	Electrostatic Precipitator	Bearing renew		
15	20-09-2023	20-09-2023	2#303EP01	Electrostatic Precipitator	Electrostatic Precipitator inspection at inside		

APPENDIX-B

APPENDIX-(B-1)
(Bio-Tank Effluent Discharge Water)



Shwe Taung Cement Co., Ltd.

Lab & Quality Control Department

Waste Water Test Report

Nature of water Surface Water
Location 55 Acre Pond
Date of sample collection 16.09.2023
Date of sample examination 16.09.2023
Date of completing 25.09.2023

Description of Analysis	Analysis Results	IFC Waste Water Guideline	Remark
pH	8	6-9	
Chemical Oxygen Demand(COD)	13 mg/L	0-125mg/L	
Biological Oxygen Demand(BOD)	3 mg/L	0-30mg/L	
Total Suspended Solid(TSS)	11 mg/L	Max 50mg/L	
Total Nitrogen	3.16 mg/L	10mg/L	
Total Nitrate	14 mg/L	44.29mg/L	
Total Phosphorous	0.5 mg/L	2mg/L	
Oil & Grease	8 mg/L	10 mg/L	

Tested by,

Han Ko Win
Chemist

Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Nu Htwe Hlaing
Manager

Lab & QC Department
Shwe Taung Cement Co., Ltd.



Shwe Taung Cement Co., Ltd.

Lab & Quality Control Department

Waste Water Test Report

Nature of water Surface Water
Location 55 Acre Pond
Date of sample collection 16.10.2023
Date of sample examination 17.10.2023
Date of completing 21.10.2023

Description of Analysis	Analysis Results	IFC Waste Water Guideline	Remark
pH	7.8	6-9	
Chemical Oxygen Demand(COD)	11 mg/L	0-125mg/L	
Biological Oxygen Demand(BOD)	15 mg/L	0-30mg/L	
Total Suspended Solid(TSS)	34 mg/L	Max 50mg/L	
Total Nitrogen	4.09 mg/L	10mg/L	
Total Nitrate	18.1 mg/L	44.29mg/L	
Total Phosphorous	0.3 mg/L	2mg/L	
Oil & Grease	7.6 mg/L	10 mg/L	

Tested by,

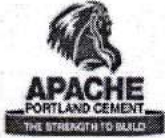
Han Ko Win
Chemist

Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Nu Htwe Hlaing
Manager

Lab & QC Department
Shwe Taung Cement Co., Ltd.



Shwe Taung Cement Co., Ltd.

Lab & Quality Control Department

Waste Water Test Report

Nature of water Surface Water
Location 55 Acre Pond
Date of sample collection 15.11.2023
Date of sample examination 16.11.2023
Date of completing 23.11.2023

Description of Analysis	Analysis Results	IFC Waste Water Guideline	Remark
pH	7.9	6-9	
Chemical Oxygen Demand(COD)	20 mg/L	0-125mg/L	
Biological Oxygen Demand(BOD)	10 mg/L	0-30mg/L	
Total Suspended Solid(TSS)	96 mg/L	Max 50mg/L	
Total Nitrogen	4.31 mg/L	10mg/L	
Total Nitrate	19.1 mg/L	44.29mg/L	
Total Phosphorous	0.1 mg/L	2mg/L	
Oil & Grease	ND	10 mg/L	Can't Test

Tested by,

Han Ko Win
Chemist

Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Nu Htwe Hlaing
Manager

Lab & QC Department
Shwe Taung Cement Co., Ltd.

APPENDIX-(B-2)
(Coal Staging Area Effluent Water)

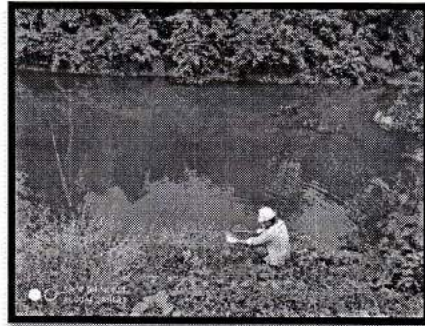


Shwe Taung Cement Co., Ltd.

Lab & Quality Control Department

Waste Water Test Report

Nature of water Surface water
Location Coal Staging Area
Date of sample collection 11.09.2023
Date of sample examination 12.09.2023
Date of completing 16.09.2023



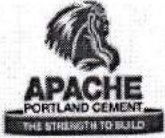
Description of Analysis	Analysis Results	IFC Waste Water Guideline	Remark
pH	7.5	6-9	
Chemical Oxygen Demand(COD)	18 mg/L	0-125mg/L	
Biological Oxygen Demand(BOD)	12 mg/L	0-30mg/L	
Total Suspended Solid(TSS)	27 mg/L	Max 50mg/L	
Total Nitrogen	1.72 mg/L	10mg/L	
Total Nitrate	7.6 mg/L	44.29mg/L	
Total Phosphorous	0.4 mg/L	2mg/L	
Oil & Grease	8.4 mg/L	10 mg/L	

Tested by,

Han Ko Win
Chemist
Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Nu Htwe Hlaing
Manager
Lab & QC Department
Shwe Taung Cement Co., Ltd.

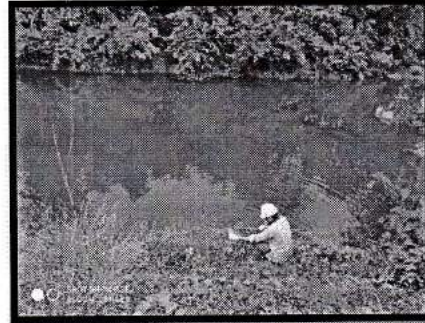


Shwe Taung Cement Co., Ltd.

Lab & Quality Control Department

Waste Water Test Report

Nature of water Surface water
Location Coal Staging Area
Date of sample collection 10.10.2023
Date of sample examination 11.10.2023
Date of completing 16.10.2023



Description of Analysis	Analysis Results	IFC Waste Water Guideline	Remark
pH	7.6	6-9	
Chemical Oxygen Demand(COD)	21 mg/L	0-125mg/L	
Biological Oxygen Demand(BOD)	8 mg/L	0-30mg/L	
Total Suspended Solid(TSS)	120 mg/L	Max 50mg/L	
Total Nitrogen	2.87 mg/L	10mg/L	
Total Nitrate	12.7 mg/L	44.29mg/L	
Total Phosphorous	0.3 mg/L	2mg/L	
Oil & Grease	ND	10 mg/L	Can't Test

Tested by,

Han Ko Win
Chemist

Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Nu Htwe Hlaing
Manager

Lab & QC Department
Shwe Taung Cement Co., Ltd.

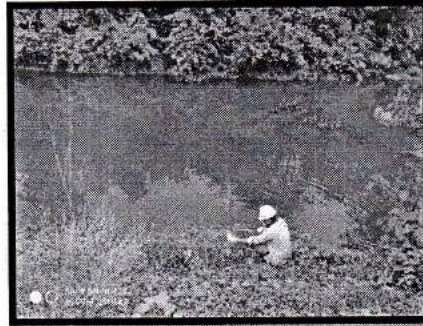


Shwe Taung Cement Co., Ltd.

Lab & Quality Control Department

Waste Water Test Report

Nature of water Surface water
Location Coal Staging Area
Date of sample collection 15.11.2023
Date of sample examination 16.11.2023
Date of completing 23.11.2023



Description of Analysis	Analysis Results	IFC Waste Water Guideline	Remark
pH	8	6-9	
Chemical Oxygen Demand(COD)	23 mg/L	0-125mg/L	
Biological Oxygen Demand(BOD)	11 mg/L	0-30mg/L	
Total Suspended Solid(TSS)	26 mg/L	Max 50mg/L	
Total Nitrogen	1.87 mg/L	10mg/L	
Total Nitrate	8.3 mg/L	44.29mg/L	
Total Phosphorous	0.2 mg/L	2mg/L	
Oil & Grease	8.4 mg/L	10 mg/L	

Tested by,

Han Ko Win
Chemist

Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Nu Htwe Hlaing
Manager

Lab & QC Department
Shwe Taung Cement Co., Ltd.

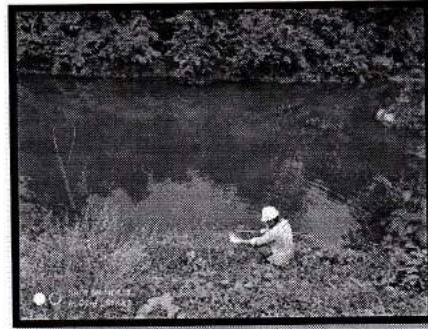


Shwe Taung Cement Co., Ltd.

Lab & Quality Control Department

Waste Water Test Report

Nature of water Surface water
Location Coal Staging Area
Date of sample collection 11.12.2023
Date of sample examination 12.12.2023
Date of completing 21.12.2023



Description of Analysis	Analysis Results	IFC Waste Water Guideline	Remark
pH	7.8	6-9	
Chemical Oxygen Demand(COD)	26 mg/L	0-125mg/L	
Biological Oxygen Demand(BOD)	7 mg/L	0-30mg/L	
Total Suspended Solid(TSS)	54 mg/L	Max 50mg/L	
Total Nitrogen	0.16 mg/L	10mg/L	
Total Nitrate	0.7 mg/L	44.29mg/L	
Total Phosphorous	0.1 mg/L	2mg/L	
Oil & Grease	ND	10 mg/L	Can't Test

Tested by,

Han Ko Win
Chemist

Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Ye' Naing Soe
Team Leader

Lab & QC Department
Shwe Taung Cement Co., Ltd.

APPENDIX-(B-3)
(Supply Water (Lower Reservoir))



Shwe Taung Cement Co., Ltd.
Lab & Quality Control Department

Water Quality Test Report

Nature of water Lower Reservoir/Non Potable Water
Location Infront of Pump Station.
Date of sample collection 15.08.2023
Date of sample examination 16.08.2023
Date of completing 18.08.2023

Description of Analysis	Analysis Results	WHO Drinking water Guideline	Remark
p ^H	8.6	6.5 ~ 8.5	
Colour(True)	5 PCU	15 PCU	
Turbidity	2.71 NTU	5 NTU	
Calcium Hardness	125 mg/l	500 mg/l as CaCO ₃	
Chloride(as Cl)	5 mg/l	250mg/l	
Sulphate(as SO ₄)	20 mg/l	200mg/l	
Total Suspended Solid(TSS)	11 mg/l	50mg/l	
Nitrate	-	50mg/l	not arrive chemical order

Tested by,

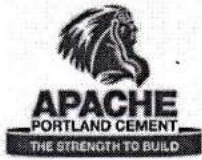
Han Ko Win
Chemist

Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Nu Htwe Hlaing
Manager

Lab & QC Department
Shwe Taung Cement Co., Ltd.



Shwe Taung Cement Co., Ltd.
Lab & Quality Control Department

Water Quality Test Report

Nature of water Lower Reservoir/Non Potable Water
Location Infront of Pump Station.
Date of sample collection 14.10.2023
Date of sample examination 15.10.2023
Date of completing 19.10.2023

Description of Analysis	Analysis Results	WHO Drinking water Guideline
p ^H	8	6.5 ~ 8.5
Colour(True)	30 PCU	15 PCU
Turbidity	7.28 NTU	5 NTU
Calcium Hardness	154 mg/l	500 mg/l as CaCO ₃
Chloride(as Cl)	5 mg/l	250mg/l
Sulphate(as SO ₄)	20 mg/l	200mg/l
Total Suspended Solid(TSS)	21 mg/l	50mg/l
Nitrate	2.4 mg/l	50mg/l

Tested by,

Han Ko Win
Chemist
Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Nu Htwe Hlaing
Manager
Lab & QC Department
Shwe Taung Cement Co., Ltd.



Shwe Taung Cement Co., Ltd.
Lab & Quality Control Department

Water Quality Test Report

Nature of water Lower Reservoir/Non Potable Water
Location Infront of Pump Station.
Date of sample collection 13.11.2023
Date of sample examination 14.11.2023
Date of completing 18.11.2023

Description of Analysis	Analysis Results	WHO Drinking water Guideline
p ^H	8.2	6.5 - 8.5
Colour(True)	25 PCU	15 PCU
Turbidity	4.17 NTU	5 NTU
Calcium Hardness	165 mg/l	500 mg/l as CaCO ₃
Chloride(as Cl)	5 mg/l	250mg/l
Sulphate(as SO ₄)	10 mg/l	200mg/l
Total Suspended Solid(TSS)	17 mg/l	50mg/l
Nitrate	3.7 mg/l	50mg/l

Tested by,

Han Ko Win
Chemist
Lab & QC Department
Shwe Taung Cement Co., Ltd.

Approved By,

Nu Htwe Hlaing
Manager
Lab & QC Department
Shwe Taung Cement Co., Ltd.

APPENDIX-C

Ambient Air Quality Results



Environmental Report

Record Cnt 290

10-07-2023

Start Date

2:25:00 PM

Location: Plant Site

End Date

11-07-2023

2:30:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	11.5275	6.22413	356.731	.098172	56.3241	30.2758	27.5896	0	78.6344	26.1137	167.117	.785172	10.28	0	0	0
Max	42	42	460	.34	396	86	100	0	100	32	350	8.3	10.5	0	0	0
Min	2	1	298	0	2	1	0	0	48	23	1	0	9.9	0	0	0
EPAS 919217	11.5275	6.22413	356.731	.098172	56.3241	30.2758	27.5896	0	78.6344	26.1137	167.117	.785172	10.28	0	0	0
	42	42	460	.34	396	86	100	0	100	32	350	8.3	10.5	0	0	0
	2	1	298	0	2	1	0	0	48	23	1	0	9.9	0	0	0
Daily	13.9913	7.35652	337.913	.126608	68.5565	37.5826	35.4782	0	79.4695	25.8608	134.6	.818260	10.3365	0	0	0
Mon, Jul 10, 2023	38	16	377	.34	396	86	100	0	93	30	346	8.3	10.5	0	0	0
	2	1	298	0	2	2	0	0	56	24	1	0	9.9	0	0	0
Ave Period 1 10-07-2023 03:20	3.33333	1	310.666	.088333	99.1666	42.5833	65.8333	0	59.4166	29.0833	206.083	.275	10.375	0	0	0
	8	1	319	.13	396	86	100	0	64	30	330	1.4	10.5	0	0	0
	2	1	304	0	2	6	0	0	56	29	7	0	10	0	0	0
Ave Period 1 10-07-2023 04:20	4.25	3.5	311.583	.011666	3.25	11.8333	62.75	0	65.4166	28	62.6666	3.11666	10.4083	0	0	0
	11	11	323	.07	8	24	80	0	77	30	130	8.3	10.5	0	0	0
	2	1	298	0	2	2	50	0	56	25	1	0	10	0	0	0
Ave Period 1 10-07-2023 05:20	14	12.6666	321.25	.109166	61.4166	34.25	44.5833	0	76.8333	26.3333	73.0833	.925	10.45	0	0	0
	18	16	323	.21	84	44	51	0	78	27	313	3.3	10.5	0	0	0
	11	9	317	.05	21	14	39	0	75	26	8	.1	10.3	0	0	0
Ave Period 1 10-07-2023 06:20	17.8333	10.5833	325.166	.1475	63.25	34.8333	38.5833	0	77.9166	26.0833	192.583	.791666	10.375	0	0	0
	29	12	332	.34	99	48	42	0	80	27	342	2.6	10.5	0	0	0
	14	8	323	.1	48	30	36	0	75	26	12	0	10	0	0	0
Ave Period 1 10-07-2023 07:20	24.8333	10.6666	347.666	.1925	71.8333	36.75	34.6666	0	85.1666	25.4166	61.6666	.541666	10.3166	0	0	0
	38	15	368	.34	81	41	37	0	90	26	125	2	10.5	0	0	0
	12	7	333	.12	65	35	32	0	81	25	10	0	9.9	0	0	0
Ave Period 1 10-07-2023 08:20	20.9166	9.58333	354.833	.155	80.4166	41.1666	27	0	87.0833	25	203.75	.241666	10.2916	0	0	0
	30	14	364	.18	94	47	31	0	91	25	266	.7	10.5	0	0	0
	16	3	338	.12	69	34	23	0	80	25	2	0	9.9	0	0	0



Environmental Report

Record Cnt 290

10-07-2023

Start Date

2:25:00 PM

End Date

11-07-2023

2:30:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	11.5275	6.22413	356.731	.098172	56.3241	30.2758	27.5896	0	78.6344	26.1137	167.117	.785172	10.28	0	0	0
Max	42	42	460	.34	396	86	100	0	100	32	350	8.3	10.5	0	0	0
Min	2	1	298	0	2	1	0	0	48	23	1	0	9.9	0	0	0
Ave Period 1 10-07-2023 09:20	21.6666	8.25	342	.146666	73.5	42.4166	20.5833	0	81	25	215.916	1.50833	10.275	0	0	0
	32	11	352	.2	79	44	24	0	85	25	346	4.7	10.3	0	0	0
	8	4	332	.1	67	41	18	0	77	25	2	.3	10	0	0	0
Ave Period 1 10-07-2023 10:20	8.25	4.91666	348.75	.123333	78.5833	44.3333	19.3333	0	84.9166	24.9166	132.833	.208333	10.2916	0	0	0
	13	7	365	.2	91	52	22	0	89	25	144	.8	10.5	0	0	0
	4	3	333	.1	70	41	18	0	79	24	30	0	10	0	0	0
Ave Period 1 10-07-2023 11:20	10.6666	6.75	364.25	.170833	76.75	43.75	17.4166	0	90.25	24	94.75	.175	10.2666	0	0	0
	16	11	377	.21	89	50	21	0	92	24	144	1.3	10.3	0	0	0
	7	3	354	.11	68	41	15	0	89	24	14	0	9.9	0	0	0
Ave Period 1 10-07-2023 11:55	14.2857	4.42857	363.714	.117142	83.7142	48.4285	15.8571	0	91.8571	24	79.8571	.1	10.3	0	0	0
	25	7	369	.14	87	50	17	0	93	24	103	.3	10.3	0	0	0
	10	2	359	.11	81	47	15	0	90	24	61	0	10.3	0	0	0
Daily Tue, Jul 11, 2023	9.90857	5.48	369.097	.079485	48.2857	25.4742	22.4057	0	78.0857	26.28	188.485	.763428	10.2428	0	0	0
	42	42	460	.23	110	55	49	0	100	32	350	5	10.3	0	0	0
	2	1	322	0	2	1	9	0	48	23	12	0	9.9	0	0	0
Ave Period 1 11-07-2023 12:20	17.2	6.6	365	.18	83.8	48.4	15	0	92.2	24	57.6	.54	10.22	0	0	0
	26	8	368	.19	85	49	15	0	93	24	81	1.2	10.3	0	0	0
	13	5	364	.17	82	47	15	0	92	24	30	0	9.9	0	0	0
Ave Period 1 11-07-2023 01:20	11.5833	2.91666	365.666	.0625	90.1666	45.9166	14.25	0	94.4166	24	42	.208333	10.3	0	0	0
	15	4	373	.11	102	52	16	0	95	24	66	.9	10.3	0	0	0
	8	1	359	.05	86	43	12	0	93	24	12	0	10.3	0	0	0
Ave Period 1 11-07-2023 02:20	11.75	7.75	384.916	.110833	90.25	48.25	13.0833	0	95.8333	23.75	36	0	10.2333	0	0	0
	15	10	408	.13	105	55	15	0	100	24	36	0	10.3	0	0	0
	9	4	362	.05	85	44	12	0	93	23	36	0	9.9	0	0	0



Environmental Report

Record Cnt 290

10-07-2023

Start Date 2:25:00 PM

End Date 11-07-2023
2:30:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	11.5275	6.22413	356.731	.098172	56.3241	30.2758	27.5896	0	78.6344	26.1137	167.117	.785172	10.28	0	0	0
Max	42	42	460	.34	396	86	100	0	100	32	350	8.3	10.5	0	0	0
Min	2	1	298	0	2	1	0	0	48	23	1	0	9.9	0	0	0
Ave Period 1 11-07-2023 03:20	13	8.5	401.333	.175833	94.8333	47.5	12.4166	0	100	23	252.083	.091666	10.275	0	0	0
	18	12	410	.23	110	50	14	0	100	23	320	.5	10.3	0	0	0
	10	6	395	.12	85	44	11	0	100	23	35	0	10	0	0	0
Ave Period 1 11-07-2023 04:20	13.9166	7.58333	406.916	.1725	96.6666	49.4166	12.25	0	100	23.1666	276.666	.016666	10.2666	0	0	0
	19	11	417	.21	107	53	13	0	100	24	281	.1	10.3	0	0	0
	10	5	398	.13	92	47	11	0	100	23	271	0	9.9	0	0	0
Ave Period 1 11-07-2023 05:20	17.0833	9.25	433.833	.143333	93.6666	47.75	11	0	100	23	279	0	10.2583	0	0	0
	18	12	460	.15	104	51	12	0	100	23	279	0	10.3	0	0	0
	14	7	412	.11	90	44	10	0	100	23	279	0	9.9	0	0	0
Ave Period 1 11-07-2023 06:20	11.75	8	432.666	.12	92.3333	45.6666	10.6666	0	99.75	23.0833	237.75	.058333	10.2416	0	0	0
	14	12	453	.14	105	49	12	0	100	24	279	.5	10.3	0	0	0
	8	4	414	.11	87	43	10	0	97	23	152	0	9.9	0	0	0
Ave Period 1 11-07-2023 07:20	4.41666	1.83333	394.25	.130833	82	42.5833	12.5	0	87.25	24.8333	192.25	0	10.2	0	0	0
	8	4	420	.15	94	48	13	0	96	27	232	0	10.3	0	0	0
	2	1	371	.12	70	37	12	0	72	24	152	0	9.9	0	0	0
Ave Period 1 11-07-2023 08:20	2.33333	1.08333	353.333	.104166	17	14.9166	12.3333	0	66.5	27.5833	202.75	.216666	10.1916	0	0	0
	5	2	366	.18	61	36	16	0	72	29	229	.8	10.3	0	0	0
	2	1	342	.04	2	1	9	0	61	27	153	0	9.9	0	0	0
Ave Period 1 11-07-2023 09:20	2.25	1.25	348.5	.033333	2	1	20.0833	0	61.5	28.25	194.333	.9	10.2666	0	0	0
	5	4	355	.07	2	1	29	0	63	29	225	1.6	10.3	0	0	0
	2	1	345	0	2	1	13	0	58	28	131	.4	9.9	0	0	0
Ave Period 1 11-07-2023 10:20	11.6666	1.41666	335.083	.0025	2	4.16666	36.0833	0	60.25	28.75	240.833	.858333	10.2416	0	0	0
	18	5	344	.03	2	12	46	0	63	30	297	2.5	10.3	0	0	0
	4	1	325	0	2	1	29	0	57	28	172	0	9.9	0	0	0



Environmental Report

Record Cnt 290

10-07-2023

Start Date

2:25:00 PM

End Date

11-07-2023

2:30:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	11.5275	6.22413	356.731	.098172	56.3241	30.2758	27.5896	0	78.6344	26.1137	167.117	.785172	10.28	0	0	0
Max	42	42	460	.34	396	86	100	0	100	32	350	8.3	10.5	0	0	0
Min	2	1	298	0	2	1	0	0	48	23	1	0	9.9	0	0	0
Ave Period 1 11-07-2023 11:20	3.33333	2.33333	334	.021666	2	1	41.9166	0	58.1666	29.0833	130.333	1.20833	10.2333	0	0	0
	12	10	338	.09	2	1	49	0	69	30	350	4	10.3	0	0	0
	2	1	331	0	2	1	32	0	52	28	31	0	9.9	0	0	0
Ave Period 1 11-07-2023 12:20	27.5833	21.6666	326.75	.006666	2	1	39.5833	0	59.9166	29.4166	129.333	.816666	10.2416	0	0	0
	42	42	334	.03	2	1	46	0	66	31	246	2	10.3	0	0	0
	2	1	322	0	2	1	32	0	51	28	16	0	9.9	0	0	0
Ave Period 1 11-07-2023 01:20	2	1	330.666	0	2	1	37.8333	0	54.9166	29.9166	235.583	3.625	10.2333	0	0	0
	2	1	335	0	2	1	41	0	57	30	318	5	10.3	0	0	0
	2	1	326	0	2	1	28	0	50	29	216	1.6	9.9	0	0	0
Ave Period 1 11-07-2023 02:20	4.33333	2.41666	327.75	0	2	1	39.75	0	53.75	30.25	237.833	2.19166	10.25	0	0	0
	10	7	332	0	2	1	47	0	58	32	287	3.2	10.3	0	0	0
	2	1	324	0	2	1	36	0	48	29	212	1	9.9	0	0	0
Ave Period 1 11-07-2023 02:30	2	1	329.5	0	2	1	40.5	0	48.5	31	228	4.3	10.1	0	0	0
	2	1	334	0	2	1	41	0	49	31	230	4.5	10.3	0	0	0
	2	1	325	0	2	1	40	0	48	31	226	4.1	9.9	0	0	0



Environmental Report

Record Cnt 289

12-07-2023

Start Date

10:25:00 AM

Location: Pyi Nyaung Village

End Date 13-07-2023

10:25:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	15.8408	6.87889	371.519	.125605	36.1660	21.1972	22.9238	0	71.1557	26.7958	22.3598	.007266	10.3664	0	0	0
Max	138	60	446	.71	87	45	60	0	94	31	360	.5	10.5	0	0	0
Min	2	1	312	0	2	1	6	0	49	23	0	0	9.9	0	0	0
EPAS 919217	15.8408	6.87889	371.519	.125605	36.1660	21.1972	22.9238	0	71.1557	26.7958	22.3598	.007266	10.3664	0	0	0
	138	60	446	.71	87	45	60	0	94	31	360	.5	10.5	0	0	0
	2	1	312	0	2	1	6	0	49	23	0	0	9.9	0	0	0
Daily	17.3251	7.90184	347.055	.103312	17.0920	11.2576	29.9141	0	62.4662	28.1288	2.20858	0	10.4411	0	0	0
Wed, Jul 12, 2023	71	44	417	.6	80	44	60	0	85	31	360	0	10.5	0	0	0
	2	1	312	0	2	1	14	0	49	24	0	0	10	0	0	0
Ave Period 1 12-07-2023 11:20	2.33333	1	335.583	.11	10.8333	9	33.0833	0	54.8333	29.1666	0	0	10.425	0	0	0
	6	1	339	.22	32	24	39	0	59	30	0	0	10.5	0	0	0
	2	1	332	.03	2	1	28	0	52	28	0	0	10.2	0	0	0
Ave Period 1 12-07-2023 12:20	4.5	2.16666	332.083	.0325	2	1	28.5	0	52.25	30	0	0	10.5	0	0	0
	10	5	337	.18	2	1	31	0	53	30	0	0	10.5	0	0	0
	2	1	328	0	2	1	26	0	51	30	0	0	10.5	0	0	0
Ave Period 1 12-07-2023 01:20	7.33333	5.33333	331.583	.035	2	1	26.5833	0	51.3333	30	0	0	10.475	0	0	0
	11	9	334	.09	2	1	29	0	53	30	0	0	10.5	0	0	0
	2	1	328	0	2	1	24	0	50	30	0	0	10.2	0	0	0
Ave Period 1 12-07-2023 02:20	6.83333	4.25	323.916	.095833	2	1	39.4166	0	56.0833	29.9166	30	0	10.475	0	0	0
	15	7	334	.17	2	1	49	0	63	31	360	0	10.5	0	0	0
	4	2	312	0	2	1	28	0	49	29	0	0	10.2	0	0	0
Ave Period 1 12-07-2023 03:20	9.5	2.41666	320.5	.105	2	1	41.5833	0	56.4166	30.1666	0	0	10.475	0	0	0
	14	6	323	.17	2	1	47	0	60	31	0	0	10.5	0	0	0
	6	1	313	.05	2	1	37	0	55	30	0	0	10.2	0	0	0
Ave Period 1 12-07-2023 04:20	29.4166	15.5	326.416	.230833	2	3.66666	45.0833	0	60.9166	29.0833	0	0	10.4583	0	0	0
	71	44	333	.56	2	9	60	0	66	30	0	0	10.5	0	0	0
	9	3	320	0	2	1	34	0	58	29	0	0	10	0	0	0



Environmental Report

Record Cnt 289

12-07-2023

Start Date

10:25:00 AM

End Date 13-07-2023

10:25:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	15.8408	6.87889	371.519	.125605	36.1660	21.1972	22.9238	0	71.1557	26.7958	22.3598	.007266	10.3664	0	0	0
Max	138	60	446	.71	87	45	60	0	94	31	360	.5	10.5	0	0	0
Min	2	1	312	0	2	1	6	0	49	23	0	0	9.9	0	0	0
Ave Period 1 12-07-2023 05:20	18.3333	8.16666	324.583	.043333	2	1.66666	32.9166	0	57.25	29.0833	0	0	10.45	0	0	0
	31	12	327	.21	2	5	38	0	58	30	0	0	10.5	0	0	0
	7	4	323	0	2	1	30	0	56	29	0	0	10.2	0	0	0
Ave Period 1 12-07-2023 06:20	27.5	14.1666	331.75	.203333	2	1.5	29.1666	0	55.75	29	0	0	10.475	0	0	0
	41	19	335	.38	2	4	39	0	58	29	0	0	10.5	0	0	0
	14	6	328	0	2	1	19	0	54	29	0	0	10.2	0	0	0
Ave Period 1 12-07-2023 07:20	25.75	12.0833	342.5	0	6.08333	7.91666	19.6666	0	58.75	27.9166	0	0	10.4583	0	0	0
	42	20	355	0	17	16	24	0	65	29	0	0	10.5	0	0	0
	12	4	334	0	2	1	15	0	53	27	0	0	10	0	0	0
Ave Period 1 12-07-2023 08:20	28.3333	11.75	349.75	.129166	16.4166	15.5	28.6666	0	66.1666	27	0	0	10.4666	0	0	0
	41	20	354	.29	21	17	39	0	67	27	0	0	10.5	0	0	0
	14	6	346	0	12	13	22	0	65	27	0	0	10.3	0	0	0
Ave Period 1 12-07-2023 09:20	21.5	7.66666	358.833	.0775	31	23.5	23	0	68.5833	26.0833	0	0	10.425	0	0	0
	41	15	371	.19	42	29	27	0	72	27	0	0	10.5	0	0	0
	12	2	354	0	15	14	21	0	67	26	0	0	10.2	0	0	0
Ave Period 1 12-07-2023 10:20	31.5	11.25	395.583	.2725	52.5	30.8333	27.25	0	78	25.3333	0	0	10.3916	0	0	0
	53	16	407	.6	62	34	32	0	81	26	0	0	10.5	0	0	0
	17	8	379	.09	43	27	23	0	74	25	0	0	10	0	0	0
Ave Period 1 12-07-2023 11:20	17.3333	8.66666	402.416	.065	63.5833	34.8333	21.3333	0	82.6666	25	0	0	10.3166	0	0	0
	28	15	417	.24	80	44	25	0	84	25	0	0	10.5	0	0	0
	5	1	389	0	51	29	20	0	81	25	0	0	10	0	0	0
Ave Period 1 12-07-2023 11:55	8.85714	5	409.142	.005714	64.7142	35.1428	17.2857	0	84.8571	24.5714	0	0	10.3428	0	0	0
	13	7	416	.02	68	37	20	0	85	25	0	0	10.5	0	0	0
	2	1	406	0	61	32	14	0	84	24	0	0	10	0	0	0



Environmental Report

Record Cnt 289

12-07-2023

Start Date

10:25:00 AM

End Date 13-07-2023

10:25:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	15.8408	6.87889	371.519	.125605	36.1660	21.1972	22.9238	0	71.1557	26.7958	22.3598	.007266	10.3664	0	0	0
Max	138	60	446	.71	87	45	60	0	94	31	360	.5	10.5	0	0	0
Min	2	1	312	0	2	1	6	0	49	23	0	0	9.9	0	0	0
Daily	13.9206	5.55555	403.166	.154444	60.8412	34.0555	13.8809	0	82.3968	25.0714	48.4285	.016666	10.2698	0	0	0
Thu, Jul 13, 2023	138	60	446	.71	87	45	31	0	94	28	160	.5	10.5	0	0	0
	2	1	333	0	2	11	6	0	63	23	0	0	9.9	0	0	0
Ave Period 1	6	2.8	407.2	.11	73	37	15.6	0	84.8	24.2	18.2	0	10.34	0	0	0
13-07-2023 12:20	11	6	413	.16	79	41	16	0	85	25	43	0	10.5	0	0	0
	4	1	404	0	61	32	14	0	84	24	0	0	10.3	0	0	0
Ave Period 1	6	2	418	.148333	71.5	36.6666	14.9166	0	84.8333	25	43	0	10.2916	0	0	0
13-07-2023 01:20	9	7	426	.2	83	39	17	0	86	25	43	0	10.5	0	0	0
	2	1	412	.12	64	34	13	0	84	25	43	0	10	0	0	0
Ave Period 1	8.33333	6.66666	416.833	.25	69.5833	36.0833	14.6666	0	84.5833	25	43	0	10.275	0	0	0
13-07-2023 02:20	11	11	425	.33	77	41	16	0	85	25	43	0	10.3	0	0	0
	6	4	410	.15	66	33	13	0	84	25	43	0	10	0	0	0
Ave Period 1	10.75	2.5	425.333	.063333	73.4166	39.5833	12.5833	0	86.5	24.4166	43	0	10.3	0	0	0
13-07-2023 03:20	30	10	436	.11	87	45	16	0	88	25	43	0	10.3	0	0	0
	3	1	416	.02	67	36	10	0	86	24	43	0	10.3	0	0	0
Ave Period 1	12.3333	7.08333	429.916	.1875	71.3333	35.5833	13.1666	0	90.1666	24	43	0	10.2666	0	0	0
13-07-2023 04:20	19	9	438	.24	81	39	14	0	92	24	43	0	10.3	0	0	0
	8	5	423	.11	66	33	12	0	88	24	43	0	9.9	0	0	0
Ave Period 1	14	8.33333	424.833	.121666	72.8333	36.8333	12.4166	0	92.5	23.9166	43	0	10.25	0	0	0
13-07-2023 05:20	37	16	437	.24	84	43	20	0	94	24	43	0	10.3	0	0	0
	8	4	415	.05	66	32	10	0	92	23	43	0	10	0	0	0
Ave Period 1	28.25	10.0833	437.333	.175833	75.25	39.5833	16.9166	0	92.25	24	43	0	10.275	0	0	0
13-07-2023 06:20	41	21	446	.32	86	45	25	0	94	24	43	0	10.3	0	0	0
	13	1	427	.05	72	35	13	0	89	24	43	0	10	0	0	0



Environmental Report

Record Cnt 289

12-07-2023

Start Date

10:25:00 AM

End Date

13-07-2023

10:25:00 AM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	15.8408	6.87889	371.519	.125605	36.1660	21.1972	22.9238	0	71.1557	26.7958	22.3598	.007266	10.3664	0	0	0
Max	138	60	446	.71	87	45	60	0	94	31	360	.5	10.5	0	0	0
Min	2	1	312	0	2	1	6	0	49	23	0	0	9.9	0	0	0
Ave Period 1 13-07-2023 07:20	37.4166	11.4166	415.916	.366666	72.5833	41.1666	20.5833	0	85.3333	24.4166	43	0	10.2666	0	0	0
	138	60	428	.71	81	45	31	0	89	25	43	0	10.3	0	0	0
	16	1	395	.23	64	37	15	0	79	24	43	0	9.9	0	0	0
Ave Period 1 13-07-2023 08:20	13.25	5.5	374.916	.208333	56.75	35.0833	13.5	0	74.9166	25.75	43	0	10.2666	0	0	0
	33	13	400	.5	66	40	20	0	79	26	43	0	10.3	0	0	0
	5	1	355	.02	45	31	9	0	71	25	43	0	9.9	0	0	0
Ave Period 1 13-07-2023 09:20	9.25	1.91666	354.583	.0325	34.25	25.5	10.1666	0	67.9166	27	51.5	.016666	10.2416	0	0	0
	44	6	357	.15	46	31	15	0	71	27	131	.1	10.3	0	0	0
	2	1	347	0	15	14	7	0	67	27	43	0	9.9	0	0	0
Ave Period 1 13-07-2023 10:20	3.25	1.25	338.083	.016666	10.75	15.1666	9.5	0	65.5833	27.3333	99.25	.158333	10.2333	0	0	0
	7	3	345	.05	16	16	13	0	67	28	160	.5	10.3	0	0	0
	2	1	333	0	6	12	6	0	64	27	42	0	9.9	0	0	0
Ave Period 1 13-07-2023 10:25	10	5	334	.06	2	11	10	0	63	28	74	0	10.3	0	0	0
	10	5	334	.06	2	11	10	0	63	28	74	0	10.3	0	0	0
	10	5	334	.06	2	11	10	0	63	28	74	0	10.3	0	0	0



Environmental Report

Record Cnt 289

17-07-2023

Start Date

10:25:00 AM

Location: Ku Pyin Village

End Date 18-07-2023

10:25:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	14.2179	8.18339	353.186	.102906	64.0484	34.0242	30.1730	.015916	82.9930	26.7716	185.169	.325605	10.0633	0	0	0
Max	52	38	406	.5	223	102	73	.73	100	33	339	4.6	10.3	0	0	0
Min	2	1	315	0	2	1	5	0	45	24	3	0	9.6	0	0	0
EPAS 919217	14.2179	8.18339	353.186	.102906	64.0484	34.0242	30.1730	.015916	82.9930	26.7716	185.169	.325605	10.0633	0	0	0
	52	38	406	.5	223	102	73	.73	100	33	339	4.6	10.3	0	0	0
	2	1	315	0	2	1	5	0	45	24	3	0	9.6	0	0	0
Daily	16.5460	9.72392	337.950	.096932	46.0981	23.1104	45.8588	.027914	74.4846	28.1104	209.668	.528834	10.1496	0	0	0
Mon, Jul 17, 2023	52	38	385	.5	223	102	73	.73	100	33	339	4.6	10.3	0	0	0
	2	1	315	0	2	1	12	0	45	24	3	0	9.7	0	0	0
Ave Period 1 17-07-2023 11:20	2.83333	1.25	323.333	.001666	2	1.08333	46.0833	0	63.1666	28.3333	187.666	1.575	10.1916	0	0	0
	8	2	325	.01	2	2	52	0	66	29	316	3.4	10.3	0	0	0
	2	1	321	0	2	1	41	0	62	28	124	.4	9.9	0	0	0
Ave Period 1 17-07-2023 12:20	2.58333	1.08333	326.75	0	2	1	44.8333	0	57.9166	30.0833	168.5	1.44166	10.1916	0	0	0
	5	2	333	0	2	1	50	0	63	31	251	2.7	10.3	0	0	0
	2	1	323	0	2	1	41	0	54	29	101	.8	9.9	0	0	0
Ave Period 1 17-07-2023 01:20	3.75	1	330.333	0	2	1	52.4166	0	54.8333	30.9166	209.333	2.20833	10.1833	0	0	0
	12	1	335	0	2	1	59	0	58	31	339	4.6	10.3	0	0	0
	2	1	324	0	2	1	42	0	53	30	133	.9	9.9	0	0	0
Ave Period 1 17-07-2023 02:20	21.25	13	330.833	0	2	1	52.8333	0	51.6666	32	223.833	1.4	10.2166	0	0	0
	52	37	334	0	2	1	65	0	55	33	317	3.1	10.3	0	0	0
	7	1	325	0	2	1	45	0	48	31	117	.5	10.2	0	0	0
Ave Period 1 17-07-2023 03:20	5.75	4.33333	328.666	0	2	1	57.6666	0	53.1666	31.5833	234.416	.458333	10.1916	0	0	0
	14	13	334	0	2	1	70	0	61	33	299	1.2	10.3	0	0	0
	2	1	325	0	2	1	48	0	45	30	3	0	9.9	0	0	0
Ave Period 1 17-07-2023 04:20	18.3333	8.33333	325.5	0	2	1	60.9166	0	56.6666	31.0833	307.583	.041666	10.1416	0	0	0
	32	17	329	0	2	1	73	0	63	32	315	.2	10.3	0	0	0
	9	1	323	0	2	1	54	0	50	30	281	0	9.9	0	0	0



Environmental Report

Record Cnt 289

17-07-2023

Start Date

10:25:00 AM

End Date 18-07-2023

10:25:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	14.2179	8.18339	353.186	.102906	64.0484	34.0242	30.1730	.015916	82.9930	26.7716	185.169	.325605	10.0633	0	0	0
Max	52	38	406	.5	223	102	73	.73	100	33	339	4.6	10.3	0	0	0
Min	2	1	315	0	2	1	5	0	45	24	3	0	9.6	0	0	0
Ave Period 1 17-07-2023 05:20	25	16.3333	322.5	.005	2	1	63.6666	0	65.8333	29.6666	333.083	0	10.175	0	0	0
	45	38	328	.06	2	1	73	0	70	31	339	0	10.2	0	0	0
	3	1	315	0	2	1	55	0	63	29	312	0	9.9	0	0	0
Ave Period 1 17-07-2023 06:20	27	14.4166	336.666	.15	6.91666	5.83333	57.9166	0	72.4166	28.9166	339	0	10.1583	0	0	0
	49	23	348	.29	18	12	63	0	73	29	339	0	10.2	0	0	0
	6	4	326	.07	2	1	51	0	71	28	339	0	9.7	0	0	0
Ave Period 1 17-07-2023 07:20	28.75	20.1666	354.666	.179166	40.75	19.75	46.9166	0	81.75	27.25	211.666	.025	10.1583	0	0	0
	38	34	371	.39	69	32	53	0	86	28	339	.3	10.2	0	0	0
	15	10	341	.07	23	12	43	0	76	27	21	0	9.7	0	0	0
Ave Period 1 17-07-2023 08:20	31	14.75	361.166	.255833	86.9166	34.75	39.1666	.154166	96	25.9166	104.333	.025	10.1416	0	0	0
	41	19	385	.5	211	47	49	.63	100	27	156	.3	10.2	0	0	0
	14	7	331	.13	62	29	31	.02	87	25	97	0	9.7	0	0	0
Ave Period 1 17-07-2023 09:20	30.6666	16.3333	340.583	.174166	183.833	46.4166	34.1666	.214166	100	24.0833	148.833	.008333	10.0833	0	0	0
	49	23	344	.31	207	82	44	.73	100	25	156	.1	10.2	0	0	0
	9	7	328	.08	160	21	23	0	100	24	147	0	9.7	0	0	0
Ave Period 1 17-07-2023 10:20	13.6666	11.1666	346	.254166	167.666	78.8333	36.9166	.010833	100	24	147	0	10.125	0	0	0
	26	17	351	.29	223	102	42	.07	100	24	147	0	10.2	0	0	0
	5	3	344	.22	87	66	32	0	100	24	147	0	9.7	0	0	0
Ave Period 1 17-07-2023 11:20	7	5.08333	353.416	.204166	64.5	78	21.5	0	100	24	147	0	10.0416	0	0	0
	12	10	364	.3	118	92	32	0	100	24	147	0	10.2	0	0	0
	2	1	345	.15	35	67	15	0	100	24	147	0	9.7	0	0	0
Ave Period 1 17-07-2023 11:55	12.2857	8.28571	360.142	.158571	105.571	74.1428	13.5714	0	100	24	147	0	10.0571	0	0	0
	16	10	367	.18	109	77	15	0	100	24	147	0	10.2	0	0	0
	8	6	356	.15	104	72	12	0	100	24	147	0	10	0	0	0



Environmental Report

Record Cnt 289

17-07-2023

Start Date

10:25:00 AM

End Date 18-07-2023

10:25:00 AM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	14.2179	8.18339	353.186	.102906	64.0484	34.0242	30.1730	.015916	82.9930	26.7716	185.169	.325605	10.0633	0	0	0
Max	52	38	406	.5	223	102	73	.73	100	33	339	4.6	10.3	0	0	0
Min	2	1	315	0	2	1	5	0	45	24	3	0	9.6	0	0	0
Daily	11.2063	6.19047	372.896	.110634	87.2698	48.1428	9.88095	.000396	94	25.0396	153.476	.062698	9.95158	0	0	0
Tue, Jul 18, 2023	42	15	406	.29	128	75	20	.04	100	30	266	2.3	10.2	0	0	0
	2	1	325	0	2	1	5	0	62	24	136	0	9.6	0	0	0
Ave Period 1	10.6	8	367.4	.136	105.6	73.4	12.6	0	100	24	147	0	9.98	0	0	0
18-07-2023 12:20	13	10	373	.14	109	75	14	0	100	24	147	0	10.2	0	0	0
	9	7	365	.13	104	71	12	0	100	24	147	0	9.7	0	0	0
Ave Period 1	8.16666	6.08333	368.083	.139166	88.75	65.25	10.1666	0	100	24	147	0	9.99166	0	0	0
18-07-2023 01:20	12	10	374	.15	104	71	12	0	100	24	147	0	10.2	0	0	0
	5	3	361	.12	70	59	7	0	100	24	147	0	9.7	0	0	0
Ave Period 1	10.9166	7.33333	379.25	.134166	115.25	57.75	7	0	100	24	147	0	9.975	0	0	0
18-07-2023 02:20	16	10	386	.14	128	62	8	0	100	24	147	0	10	0	0	0
	5	3	367	.12	70	55	6	0	100	24	147	0	9.7	0	0	0
Ave Period 1	9.66666	6.08333	387.166	.144166	115.25	56.1666	7.66666	0	100	24	147	0	9.96666	0	0	0
18-07-2023 03:20	12	9	399	.15	125	60	9	0	100	24	147	0	10	0	0	0
	6	4	375	.13	107	53	7	0	100	24	147	0	9.7	0	0	0
Ave Period 1	13.1666	7.83333	395.75	.145	107.333	53.25	7.75	0	100	24	147	0	9.975	0	0	0
18-07-2023 04:20	18	9	402	.15	116	56	8	0	100	24	147	0	10	0	0	0
	8	5	389	.13	101	51	7	0	100	24	147	0	9.7	0	0	0
Ave Period 1	13.75	8.16666	397.916	.103333	102.25	51.75	7.16666	0	100	24	147	0	9.95833	0	0	0
18-07-2023 05:20	17	10	406	.16	111	54	9	0	100	24	147	0	10	0	0	0
	11	5	392	.01	99	48	5	0	100	24	147	0	9.6	0	0	0
Ave Period 1	21.75	10.0833	395.083	.083333	103.666	51.25	9.25	.004166	100	24	147	0	9.96666	0	0	0
18-07-2023 06:20	40	15	402	.29	115	54	14	.04	100	24	147	0	10.2	0	0	0
	6	5	387	0	100	49	5	0	100	24	147	0	9.7	0	0	0



Environmental Report

Record Cnt 289

17-07-2023

Start Date

10:25:00 AM

End Date 18-07-2023

10:25:00 AM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	14.2179	8.18339	353.186	.102906	64.0484	34.0242	30.1730	.015916	82.9930	26.7716	185.169	.325605	10.0633	0	0	0
Max	52	38	406	.5	223	102	73	.73	100	33	339	4.6	10.3	0	0	0
Min	2	1	315	0	2	1	5	0	45	24	3	0	9.6	0	0	0
Ave Period 1 18-07-2023 07:20	10.75	5.91666	379.833	.026666	103.666	53	9.83333	0	99.9166	24.75	147	0	9.90833	0	0	0
	16	12	389	.17	122	56	14	0	100	25	147	0	10	0	0	0
	5	3	371	0	95	51	8	0	99	24	147	0	9.6	0	0	0
Ave Period 1 18-07-2023 08:20	8.16666	6	360.083	.159166	87.9166	46.4166	13.4166	0	93.0833	25.75	147	0	9.94166	0	0	0
	14	12	369	.19	104	53	16	0	97	26	147	0	10	0	0	0
	2	1	355	.13	69	39	11	0	90	25	147	0	9.6	0	0	0
Ave Period 1 18-07-2023 09:20	5.33333	1.5	339.333	.104166	37.4166	25.4166	10.5833	0	78.1666	27.1666	172.666	.008333	9.93333	0	0	0
	10	3	350	.13	104	47	15	0	85	28	194	.1	10	0	0	0
	2	1	334	.08	7	13	7	0	75	27	147	0	9.6	0	0	0
Ave Period 1 18-07-2023 10:20	10.6666	2.5	332.083	.060833	10.6666	14.5833	14.1666	0	68.9166	28.75	188.666	.633333	9.89166	0	0	0
	42	11	343	.09	24	23	20	0	75	30	266	2.3	10	0	0	0
	2	1	325	.05	2	1	8	0	62	28	136	0	9.6	0	0	0
Ave Period 1 18-07-2023 10:25	11	2	333	.06	2	1	18	0	63	30	155	.2	9.9	0	0	0
	11	2	333	.06	2	1	18	0	63	30	155	.2	9.9	0	0	0
	11	2	333	.06	2	1	18	0	63	30	155	.2	9.9	0	0	0



Environmental Report

Record Cnt 1440

07-08-2023

Start Date 10:45:00 AM

Location: Plant Site

End Date 08-08-2023
10:44:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	21.4465	10.5006	354.465	.097472	42.4125	25.5388	13.4347	.007694	94.9506	24.4819	184.338	.105486	10.0780	0	0	0
Max	2174	56	427	.41	120	90	76	.25	100	28	360	2.6	10.5	0	0	0
Min	2	1	312	0	2	1	1	0	71	23	0	0	9.4	0	0	0
EPAS 919217	21.4465	10.5006	354.465	.097472	42.4125	25.5388	13.4347	.007694	94.9506	24.4819	184.338	.105486	10.0780	0	0	0
	2174	56	427	.41	120	90	76	.25	100	28	360	2.6	10.5	0	0	0
	2	1	312	0	2	1	1	0	71	23	0	0	9.4	0	0	0
Daily Mon, Aug 7, 2023	19.7320	12.2037	344.106	.098566	33.1622	20.0679	20.3308	.004427	92.6654	25.0679	175.618	.104779	10.1793	0	0	0
	317	56	417	.41	102	90	76	.25	100	28	360	2.6	10.5	0	0	0
	2	1	312	0	2	1	5	0	71	24	0	0	9.6	0	0	0
Ave Period 1 07-08-2023 11:44	13.5	4.93333	325.2	.0185	31.9833	25.0666	44.8833	0	75.65	26.7666	205.183	.028333	10.295	0	0	0
	27	18	334	.22	102	90	76	0	81	27	230	.3	10.5	0	0	0
	2	1	323	0	2	7	25	0	71	26	189	0	9.9	0	0	0
Ave Period 1 07-08-2023 12:44	4.91666	3.1	325.1	.010666	2.36666	3.13333	34.4666	0	83.3333	26.2333	199	0	10.37	0	0	0
	17	10	334	.13	10	11	40	0	87	27	199	0	10.5	0	0	0
	2	1	315	0	2	1	29	0	80	26	199	0	10.3	0	0	0
Ave Period 1 07-08-2023 01:44	11.1	4.76666	321.25	.0045	2	1	29.9833	0	80.2666	26.65	254.183	.028333	10.2983	0	0	0
	30	14	325	.05	2	1	35	0	86	28	355	.6	10.5	0	0	0
	2	1	313	0	2	1	25	0	74	26	199	0	9.9	0	0	0
Ave Period 1 07-08-2023 02:44	24.9666	16.75	318.083	.004333	2	1.01666	26.3666	0	79.6833	26.8	168.4	.581666	10.2333	0	0	0
	47	56	328	.09	2	2	31	0	84	27	360	2.6	10.3	0	0	0
	6	1	312	0	2	1	15	0	76	26	4	0	9.9	0	0	0
Ave Period 1 07-08-2023 03:44	45.6166	34.85	322.183	.081666	11.4333	11.9666	25.0333	.0295	93	25.1	93.25	.355	10.195	0	0	0
	64	52	329	.24	34	27	29	.25	97	26	290	2.1	10.3	0	0	0
	15	13	312	0	2	1	15	0	84	25	1	0	9.9	0	0	0
Ave Period 1 07-08-2023 04:44	36.6333	25.1666	328.316	.126	37.0666	21.15	20.2166	.016666	96.7	25	87.0333	.291666	10.16	0	0	0
	61	49	334	.22	54	28	24	.25	99	25	357	1.7	10.3	0	0	0
	16	10	323	.07	24	17	17	0	94	25	0	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

07-08-2023

Start Date

10:45:00 AM

End Date 08-08-2023

10:44:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	21.4465	10.5006	354.465	.097472	42.4125	25.5388	13.4347	.007694	94.9506	24.4819	184.338	.105486	10.0780	0	0	0
Max	2174	56	427	.41	120	90	76	.25	100	28	360	2.6	10.5	0	0	0
Min	2	1	312	0	2	1	1	0	71	23	0	0	9.4	0	0	0
Ave Period 1 07-08-2023 05:44	22.7666	12.5333	323.033	.125666	43.8	26.7666	17.8833	.0125	95.6166	25	28.9666	.018333	10.165	0	0	0
	34	20	325	.39	62	35	24	.13	97	25	77	.4	10.3	0	0	0
	12	5	317	.09	32	16	15	0	94	25	0	0	9.9	0	0	0
Ave Period 1 07-08-2023 06:44	22.1666	11.0333	329.4	.116	46	26.4666	15.0333	0	98.5666	24.6	121.316	.018333	10.1533	0	0	0
	33	15	344	.24	56	32	21	0	100	25	249	.4	10.2	0	0	0
	14	6	323	0	30	21	13	0	96	24	32	0	9.7	0	0	0
Ave Period 1 07-08-2023 07:44	31.3833	11.9	350.45	.177	52.7333	27.8333	14.9666	0	100	24	226	0	10.14	0	0	0
	317	18	365	.41	64	39	21	0	100	24	226	0	10.2	0	0	0
	12	8	336	.08	48	21	11	0	100	24	226	0	9.7	0	0	0
Ave Period 1 07-08-2023 08:44	14.0666	9.08333	367.733	.174166	46.9333	30.5333	12.5333	0	100	24	168.316	0	10.11	0	0	0
	27	15	378	.4	59	37	22	0	100	24	226	0	10.2	0	0	0
	2	1	348	.05	36	26	7	0	100	24	87	0	9.7	0	0	0
Ave Period 1 07-08-2023 09:44	4.16666	2.6	377.116	.144833	48.0666	27.95	9.11666	0	100	24	164.75	.005	10.11	0	0	0
	10	8	385	.22	52	32	14	0	100	24	210	.1	10.2	0	0	0
	2	1	365	.08	43	23	7	0	100	24	87	0	9.7	0	0	0
Ave Period 1 07-08-2023 10:44	13.8	11.5666	378.566	.200333	52.3666	27.35	9.43333	0	100	24	262.55	.061666	10.1133	0	0	0
	28	17	386	.26	57	35	12	0	100	24	280	1	10.2	0	0	0
	7	5	369	.13	46	24	7	0	100	24	203	0	10	0	0	0
Ave Period 1 07-08-2023 11:44	13.5833	11.0166	390.55	.112833	50.5833	28.6833	7.83333	0	100	24	278.25	0	10.0433	0	0	0
	18	15	404	.24	67	36	12	0	100	24	279	0	10.2	0	0	0
	9	7	376	.01	42	22	5	0	100	24	278	0	9.7	0	0	0
Ave Period 1 07-08-2023 11:59	11.1333	9.6	409.733	.038	48.2666	27.9333	6.53333	0	100	24	279	0	9.96	0	0	0
	13	12	417	.06	53	32	9	0	100	24	279	0	10.2	0	0	0
	8	6	387	.02	41	25	5	0	100	24	279	0	9.6	0	0	0



Environmental Report

Record Cnt 1440

07-08-2023

Start Date

10:45:00 AM

End Date 08-08-2023

10:44:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	21.4465	10.5006	354.465	.097472	42.4125	25.5388	13.4347	.007694	94.9506	24.4819	184.338	.105486	10.0780	0	0	0
Max	2174	56	427	.41	120	90	76	.25	100	28	360	2.6	10.5	0	0	0
Min	2	1	312	0	2	1	1	0	71	23	0	0	9.4	0	0	0
Daily	23.5596	8.40155	367.234	.096124	53.8139	32.2821	4.93488	.011720	97.7674	23.7596	195.086	.106356	9.95317	0	0	0
Tue, Aug 8, 2023	2174	21	427	.28	120	60	12	.24	100	25	352	1.9	10.2	0	0	0
	2	1	313	.02	27	20	1	0	82	23	1	0	9.4	0	0	0
Ave Period 1	14.0666	10.5555	397.511	.061555	44.6444	28.1777	5.35555	0	99.8222	24	262.333	0	10.0288	0	0	0
08-08-2023 12:44	26	14	417	.13	59	36	8	0	100	24	279	0	10.2	0	0	0
	10	7	376	.03	30	23	3	0	97	24	255	0	9.7	0	0	0
Ave Period 1	10.0166	7.83333	415.866	.099666	46.6333	27.7	5.56666	0	100	24	225.833	0	9.98333	0	0	0
08-08-2023 01:44	19	14	427	.13	54	32	8	0	100	24	255	0	10.2	0	0	0
	3	1	406	.07	42	23	4	0	100	24	141	0	9.7	0	0	0
Ave Period 1	10.5166	8.1	406.5	.0915	45.7833	26.5	4.71666	.004166	100	24	115.783	0	9.97	0	0	0
08-08-2023 02:44	19	17	416	.11	52	32	6	.13	100	24	141	0	10.2	0	0	0
	4	2	396	.07	37	22	3	0	100	24	108	0	9.6	0	0	0
Ave Period 1	18.75	14.8166	389.483	.0725	41.9166	24.95	3.38333	.016833	100	23.65	107.883	.03	9.95833	0	0	0
08-08-2023 03:44	28	21	420	.11	50	30	7	.22	100	24	108	.9	10.2	0	0	0
	12	9	370	.04	29	20	1	0	100	23	106	0	9.6	0	0	0
Ave Period 1	24.1166	14.5833	374.733	.087	43.55	25.3833	3.13333	.019166	100	23.5	129.1	.051666	9.95333	0	0	0
08-08-2023 04:44	35	17	387	.1	51	31	5	.24	100	24	352	.8	10	0	0	0
	13	11	365	.07	33	21	1	0	100	23	106	0	9.6	0	0	0
Ave Period 1	22.7833	13.8833	372.216	.097333	51.3	31.4833	3.21666	.023	100	23	278.333	.001666	9.97333	0	0	0
08-08-2023 05:44	34	18	379	.12	57	37	5	.19	100	23	333	.1	10	0	0	0
	12	9	364	.07	44	25	2	0	100	23	187	0	9.6	0	0	0
Ave Period 1	18.8833	12.2833	366.933	.131	57.9	31.9166	3.7	.016833	100	23	241.983	0	9.98	0	0	0
08-08-2023 06:44	32	18	376	.21	68	38	7	.13	100	23	342	0	10	0	0	0
	7	5	355	.09	51	24	2	0	100	23	17	0	9.6	0	0	0



Environmental Report

Record Cnt 1440

07-08-2023

Start Date

10:45:00 AM

End Date

08-08-2023

10:44:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	21.4465	10.5006	354.465	.097472	42.4125	25.5388	13.4347	.007694	94.9506	24.4819	184.338	.105486	10.0780	0	0	0
Max	2174	56	427	.41	120	90	76	.25	100	28	360	2.6	10.5	0	0	0
Min	2	1	312	0	2	1	1	0	71	23	0	0	9.4	0	0	0
Ave Period 1 08-08-2023 07:44	31.2166	3.83333	347.766	.107166	52.4333	36.5	3	.029166	100	23	218.133	.028333	9.93833	0	0	0
	91	8	365	.14	59	45	4	.14	100	23	264	.2	10	0	0	0
	2	1	333	.08	48	28	1	0	100	23	191	0	9.6	0	0	0
Ave Period 1 08-08-2023 08:44	95.7666	2.6	332.8	.1105	84.2666	48.8166	6.98333	.0085	97.4	23.4666	223.3	.233333	9.92166	0	0	0
	2174	5	344	.15	120	60	10	.13	100	24	334	1.4	10	0	0	0
	9	1	323	.08	55	39	2	0	91	23	1	0	9.6	0	0	0
Ave Period 1 08-08-2023 09:44	4.68333	1.58333	324.283	.1245	74.6833	41.9166	8.78333	0	90.1666	24.8	123.816	.248333	9.905	0	0	0
	10	6	334	.28	94	47	12	0	96	25	264	1.4	10	0	0	0
	2	1	314	.07	54	35	7	0	88	24	1	0	9.4	0	0	0
Ave Period 1 08-08-2023 10:44	5.98333	2.88333	319.05	.066	46.55	30.7333	6.55	.008333	88.5666	25	236.266	.55	9.89166	0	0	0
	18	7	325	.13	64	40	11	.13	93	25	274	1.9	10	0	0	0
	2	1	313	.02	27	25	3	0	82	25	191	0	9.6	0	0	0



Environmental Report

Record Cnt 1440

Start Date 15-08-2023
3:04:00 PM

Location: Pyi Nyaung Village

End Date 16-08-2023
3:03:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	18.1972	11.3937	364.843	.117284	17.6145	12.1131	21.8736	.002465	76.5125	26.9763	162.864	.0675	10.2236	0	0	0
Max	105	59	447	.9	51	34	68	.38	96	32	360	2.1	10.7	0	0	0
Min	2	1	309	0	2	1	7	0	49	24	1	0	9.7	0	0	0
EPAS 919217	18.1972	11.3937	364.843	.117284	17.6145	12.1131	21.8736	.002465	76.5125	26.9763	162.864	.0675	10.2236	0	0	0
	105	59	447	.9	51	34	68	.38	96	32	360	2.1	10.7	0	0	0
	2	1	309	0	2	1	7	0	49	24	1	0	9.7	0	0	0
Daily	23.0298	15.9738	357.182	.121716	13.3320	10.0111	29.9216	0	70.7369	27.4925	165.992	.076119	10.3507	0	0	0
Tue, Aug 15, 2023	68	59	427	.9	51	34	68	0	91	32	270	2.1	10.7	0	0	0
	2	1	314	0	2	1	14	0	49	25	74	0	9.9	0	0	0
Ave Period 1 15-08-2023 04:03	4.31666	2.96666	319.933	.091333	2	5.05	48.6666	0	54.7166	30.9333	167.833	.005	10.48	0	0	0
	14	12	333	.9	2	25	68	0	57	31	270	.2	10.7	0	0	0
	2	1	314	0	2	1	32	0	50	30	123	0	10.2	0	0	0
Ave Period 1 15-08-2023 05:03	6.43333	4.38333	327.166	.000833	2	1	34.5833	0	51.6833	31.2833	231.95	0	10.4533	0	0	0
	14	11	335	.05	2	1	42	0	55	32	249	0	10.5	0	0	0
	2	1	318	0	2	1	28	0	49	31	203	0	10	0	0	0
Ave Period 1 15-08-2023 06:03	31.1833	23.1166	329.883	.104	2	1	43.8666	0	62.2	29.45	231.516	.008333	10.4333	0	0	0
	61	51	334	.41	2	1	65	0	66	30	233	.4	10.5	0	0	0
	9	7	320	0	2	1	34	0	57	29	187	0	10	0	0	0
Ave Period 1 15-08-2023 07:03	40.2666	27.7666	331.266	.035666	2	1	24.6333	0	64.9166	27.4166	188.733	.653333	10.395	0	0	0
	63	49	338	.19	2	1	38	0	66	29	247	2.1	10.5	0	0	0
	9	7	323	0	2	1	16	0	64	27	140	0	10	0	0	0
Ave Period 1 15-08-2023 08:03	29.1333	23.6166	347.4	.187	2.2	2.73333	26.8333	0	70.7166	26.4	104.3	.013333	10.3166	0	0	0
	40	41	365	.49	9	15	36	0	76	27	243	.2	10.5	0	0	0
	11	9	333	.05	2	1	17	0	66	26	74	0	9.9	0	0	0
Ave Period 1 15-08-2023 09:03	31.1833	15.4833	366.466	.217166	10.6166	14.3833	26	0	78.05	26	130.266	0	10.2883	0	0	0
	48	38	385	.82	22	22	44	0	81	26	150	0	10.5	0	0	0
	16	5	345	0	2	8	17	0	76	26	74	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

15-08-2023

Start Date

3:04:00 PM

End Date

16-08-2023

3:03:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	18.1972	11.3937	364.843	.117284	17.6145	12.1131	21.8736	.002465	76.5125	26.9763	162.864	.0675	10.2236	0	0	0
Max	105	59	447	.9	51	34	68	.38	96	32	360	2.1	10.7	0	0	0
Min	2	1	309	0	2	1	7	0	49	24	1	0	9.7	0	0	0
Ave Period 1 15-08-2023 10:03	27.4666	20.4	378.816	.166333	26.6833	18.6833	24.7833	0	81.0333	25.7833	146	0	10.2933	0	0	0
	68	59	385	.34	38	28	36	0	83	26	146	0	10.5	0	0	0
	13	11	359	.04	19	14	16	0	80	25	146	0	10	0	0	0
Ave Period 1 15-08-2023 11:03	18.75	14.0833	400.516	.197333	35.4833	21.6333	21.2333	0	85.7	25	146	0	10.2533	0	0	0
	30	20	416	.35	50	29	27	0	88	25	146	0	10.3	0	0	0
	11	7	385	.08	24	13	18	0	83	25	146	0	9.9	0	0	0
Ave Period 1 15-08-2023 11:59	18.2142	11.6607	417.196	.093928	38.6964	25.6607	17.8928	0	88.8214	25	146	0	10.2357	0	0	0
	29	15	427	.23	51	34	22	0	91	25	146	0	10.3	0	0	0
	14	8	406	0	32	19	14	0	87	25	146	0	9.9	0	0	0
Daily Wed, Aug 16, 2023	15.3318	8.67809	369.386	.114657	20.1537	13.3595	17.1017	.003926	79.9369	26.6703	161.009	.062389	10.1483	0	0	0
	105	50	447	.66	51	33	53	.38	96	30	360	1.3	10.3	0	0	0
	2	1	309	0	2	1	7	0	57	24	1	0	9.7	0	0	0
Ave Period 1 16-08-2023 12:03	25.75	13.75	417	.0025	37.75	26.25	14.5	0	90	25	146	0	10.275	0	0	0
	30	17	417	.01	39	30	15	0	90	25	146	0	10.3	0	0	0
	19	12	417	0	36	25	14	0	90	25	146	0	10.2	0	0	0
Ave Period 1 16-08-2023 01:03	18.2	12.05	427.366	.058166	40.2666	26.7666	14.15	0	92.9166	24.8833	146	0	10.2	0	0	0
	29	17	443	.16	51	33	17	0	96	25	146	0	10.3	0	0	0
	11	5	406	0	35	21	11	0	90	24	146	0	9.9	0	0	0
Ave Period 1 16-08-2023 02:03	15.9666	9.93333	414.266	.0435	39.6666	22.95	11.0333	0	93.0333	24.9833	146	0	10.175	0	0	0
	28	15	431	.11	47	29	13	0	94	25	146	0	10.3	0	0	0
	9	4	398	0	36	15	9	0	92	24	146	0	9.7	0	0	0
Ave Period 1 16-08-2023 03:03	19.6	10.75	404.75	.088	38.5666	20.0333	9.83333	0	92.8833	24.3833	146	0	10.1683	0	0	0
	30	14	440	.18	46	33	12	0	94	25	146	0	10.3	0	0	0
	11	5	395	.06	32	12	8	0	92	24	146	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

15-08-2023

Start Date

3:04:00 PM

End Date

16-08-2023

3:03:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	18.1972	11.3937	364.843	.117284	17.6145	12.1131	21.8736	.002465	76.5125	26.9763	162.864	.0675	10.2236	0	0	0
Max	105	59	447	.9	51	34	68	.38	96	32	360	2.1	10.7	0	0	0
Min	2	1	309	0	2	1	7	0	49	24	1	0	9.7	0	0	0
Ave Period 1 16-08-2023 04:03	11.7333	8.6	423.266	.113166	35.5666	22.05	9.31666	0	93.85	24.15	146	0	10.1666	0	0	0
	15	13	438	.17	40	26	12	0	95	25	146	0	10.2	0	0	0
	8	4	413	.09	29	16	8	0	92	24	146	0	9.7	0	0	0
Ave Period 1 16-08-2023 05:03	20.7166	13.25	431.616	.297166	39.7833	23.4833	17.15	0	94.25	24.3	146	0	10.1916	0	0	0
	40	22	447	.66	45	28	38	0	95	25	146	0	10.2	0	0	0
	7	5	417	.12	33	19	9	0	93	24	146	0	9.7	0	0	0
Ave Period 1 16-08-2023 06:03	32.3166	15.7333	417	.181	39.6833	23.05	16.7333	0	91.5833	25	146	0	10.1716	0	0	0
	55	39	437	.59	47	29	29	0	93	25	146	0	10.2	0	0	0
	16	8	396	0	33	17	8	0	90	25	146	0	9.7	0	0	0
Ave Period 1 16-08-2023 07:03	24.2833	13.5166	382.466	.174833	31.05	22.2666	14.25	0	86.55	25.05	146	0	10.1533	0	0	0
	43	18	407	.33	45	30	18	0	91	26	146	0	10.2	0	0	0
	11	9	355	.03	16	16	10	0	81	25	146	0	9.7	0	0	0
Ave Period 1 16-08-2023 08:03	12.1666	7.1	348.65	.189666	12.1333	17.6166	12.9666	0	75.4833	26.7333	146.033	0	10.1466	0	0	0
	19	12	365	.38	35	28	22	0	80	27	148	0	10.2	0	0	0
	4	2	334	.07	2	7	9	0	73	26	146	0	9.7	0	0	0
Ave Period 1 16-08-2023 09:03	6.4	2.31666	330.733	.0895	2	5.21666	10.0833	0	70.9	27.3	190.133	.026666	10.1533	0	0	0
	18	8	335	.33	2	15	21	0	74	28	338	.3	10.2	0	0	0
	2	1	324	0	2	1	7	0	67	27	134	0	9.7	0	0	0
Ave Period 1 16-08-2023 10:03	5.96666	1.95	332.9	.082166	2	1.15	12.3333	0	63.7833	28.9666	199.866	.23	10.14	0	0	0
	16	10	340	.21	2	4	16	0	66	30	360	.9	10.2	0	0	0
	2	1	325	0	2	1	8	0	60	28	1	0	9.7	0	0	0
Ave Period 1 16-08-2023 11:03	8.08333	2.18333	333.633	.039333	2	1	14.2	0	59.5166	29.5333	194.666	.3	10.1266	0	0	0
	25	11	339	.29	2	1	21	0	63	30	359	1.3	10.2	0	0	0
	2	1	324	0	2	1	8	0	57	29	27	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

15-08-2023

Start Date

3:04:00 PM

End Date

16-08-2023

3:03:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	18.1972	11.3937	364.843	.117284	17.6145	12.1131	21.8736	.002465	76.5125	26.9763	162.864	.0675	10.2236	0	0	0
Max	105	59	447	.9	51	34	68	.38	96	32	360	2.1	10.7	0	0	0
Min	2	1	309	0	2	1	7	0	49	24	1	0	9.7	0	0	0
Ave Period 1 16-08-2023 12:03	9.01666	3.21666	326.55	.039333	2	1	19.2166	0	59.7166	29.8	119.266	.346666	10.12	0	0	0
	29	13	334	.22	2	1	23	0	62	30	359	1.1	10.2	0	0	0
	2	1	323	0	2	1	15	0	58	29	1	0	9.7	0	0	0
Ave Period 1 16-08-2023 01:03	12.8833	9.2	327.4	.101166	2.08333	1.58333	26.3166	.0535	68.25	28.75	233.833	.028333	10.1566	0	0	0
	40	46	334	.39	6	10	40	.38	91	30	322	.4	10.2	0	0	0
	3	1	323	0	2	1	15	0	58	26	88	0	10	0	0	0
Ave Period 1 16-08-2023 02:03	9.78333	9.83333	317.633	.153166	12.3333	10.2333	39	.005666	78.1333	28.4333	162.883	.001666	10.0833	0	0	0
	42	48	325	.57	50	28	53	.13	93	29	224	.1	10.2	0	0	0
	2	1	311	.05	2	1	27	0	66	26	78	0	9.7	0	0	0
Ave Period 1 16-08-2023 03:03	22.1666	10.2	319.383	.077166	2	1.13333	30.1166	0	77.5333	27.9	147.466	.006666	10.0633	0	0	0
	105	50	354	.22	2	7	37	0	80	28	210	.1	10.2	0	0	0
	2	1	309	.02	2	1	22	0	75	27	78	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

03-08-2023

Start Date 3:02:00 PM

Location: Ku Pyin Village

End Date 04-08-2023

3:01:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	15.4395	10.2930	370.723	.102048	45.2819	26.2131	14.6277	.009326	94.7416	24.1986	147.876	.087916	10.1493	0	0	0
Max	61	55	448	.48	119	69	76	.56	100	30	343	5.7	10.5	0	0	0
Min	2	1	303	0	2	1	5	0	64	23	1	0	9.6	0	0	0
EPAS 919217	15.4395	10.2930	370.723	.102048	45.2819	26.2131	14.6277	.009326	94.7416	24.1986	147.876	.087916	10.1493	0	0	0
	61	55	448	.48	119	69	76	.56	100	30	343	5.7	10.5	0	0	0
	2	1	303	0	2	1	5	0	64	23	1	0	9.6	0	0	0
Daily	15.9275	11.3531	354.907	.088271	43.6895	25.5446	21.5390	.008494	95.5483	23.9237	149.793	.205947	10.2373	0	0	0
Thu, Aug 3, 2023	61	55	406	.48	75	44	76	.56	100	30	343	5.7	10.5	0	0	0
	2	1	303	0	2	1	5	0	64	23	1	0	9.7	0	0	0
Ave Period 1 03-08-2023 04:01	4.88333	2.75	309.833	.0185	9.88333	10.0833	63.1	.024833	68.9333	29.1166	196	.121666	10.3566	0	0	0
	17	16	322	.09	47	38	76	.35	86	30	299	1	10.5	0	0	0
	2	1	303	0	2	1	45	0	64	26	104	0	10	0	0	0
Ave Period 1 03-08-2023 05:01	31.9833	26.6833	324.433	.019	4.11666	6.28333	32.7833	.047166	94.15	24.45	125.166	1.64333	10.2316	0	0	0
	61	55	334	.08	23	22	52	.56	100	26	340	5.7	10.5	0	0	0
	2	1	313	0	2	1	21	0	85	23	9	0	9.9	0	0	0
Ave Period 1 03-08-2023 06:01	22.1333	19.1833	332.05	.134666	40.2666	28.5	21	.004166	97.4333	23.2	180.683	.081666	10.25	0	0	0
	41	43	338	.48	55	38	29	.13	100	24	343	.7	10.3	0	0	0
	6	4	323	.03	21	20	11	0	93	23	1	0	9.9	0	0	0
Ave Period 1 03-08-2023 07:01	20.45	14.3166	342.483	.176333	51.9333	30.15	20.2666	0	99.5666	23.5166	141	0	10.25	0	0	0
	34	41	354	.37	59	38	24	0	100	24	141	0	10.3	0	0	0
	8	5	333	.04	44	25	17	0	97	23	141	0	9.9	0	0	0
Ave Period 1 03-08-2023 08:01	20.7166	10.6166	358.666	.143833	54.55	31	16.3	0	100	23	141	0	10.2333	0	0	0
	37	17	375	.32	69	41	22	0	100	23	141	0	10.3	0	0	0
	14	7	344	.05	46	25	13	0	100	23	141	0	9.9	0	0	0
Ave Period 1 03-08-2023 09:01	14.6166	9.11666	368.05	.085166	53.9	30.35	12.1166	0	100	23	141	0	10.2233	0	0	0
	25	13	375	.35	75	35	21	0	100	23	141	0	10.3	0	0	0
	8	5	361	0	46	26	9	0	100	23	141	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

03-08-2023

Start Date 3:02:00 PM

End Date 04-08-2023

3:01:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	15.4395	10.2930	370.723	.102048	45.2819	26.2131	14.6277	.009326	94.7416	24.1986	147.876	.087916	10.1493	0	0	0
Max	61	55	448	.48	119	69	76	.56	100	30	343	5.7	10.5	0	0	0
Min	2	1	303	0	2	1	5	0	64	23	1	0	9.6	0	0	0
Ave Period 1 03-08-2023 10:01	10.1666	7.58333	378.65	.026666	59.2333	26.0833	10.9166	0	100	23	141	0	10.215	0	0	0
	25	14	386	.3	68	39	19	0	100	23	141	0	10.3	0	0	0
	6	3	375	0	54	20	9	0	100	23	141	0	9.9	0	0	0
Ave Period 1 03-08-2023 11:01	5.91666	3.85	384.333	.092333	59.3666	32.15	9.33333	0	100	23	141	0	10.1983	0	0	0
	11	8	396	.13	69	39	12	0	100	23	141	0	10.3	0	0	0
	2	1	375	.07	53	28	8	0	100	23	141	0	9.9	0	0	0
Ave Period 1 03-08-2023 11:59	12.3620	7.96551	397.068	.098275	60.5172	35.6379	7.56896	0	100	23	141	0	10.1758	0	0	0
	17	12	406	.12	71	44	10	0	100	23	141	0	10.3	0	0	0
	3	1	392	.07	54	30	5	0	100	23	141	0	9.7	0	0	0
Daily Fri, Aug 4, 2023	15.1485	9.66075	380.157	.110266	46.2317	26.6119	10.5055	.009822	94.2605	24.3625	146.732	.017516	10.0967	0	0	0
	37	19	448	.43	119	69	30	.24	100	27	315	1.1	10.2	0	0	0
	2	1	304	0	2	1	5	0	77	23	12	0	9.6	0	0	0
Ave Period 1 04-08-2023 12:01	13.5	10.5	402	.1	60.5	36	7	0	100	23	141	0	10.2	0	0	0
	15	11	405	.1	61	37	7	0	100	23	141	0	10.2	0	0	0
	12	10	399	.1	60	35	7	0	100	23	141	0	10.2	0	0	0
Ave Period 1 04-08-2023 01:01	14.8333	9.76666	405.816	.124833	60.4166	34.1833	7.05	0	100	23	141	0	10.1633	0	0	0
	29	13	416	.16	68	40	9	0	100	23	141	0	10.2	0	0	0
	10	4	396	.1	57	29	5	0	100	23	141	0	9.7	0	0	0
Ave Period 1 04-08-2023 02:01	19.2166	10.2166	404.9	.137833	59.35	30.75	6.63333	0	100	23	141	0	10.1666	0	0	0
	32	14	420	.18	70	35	8	0	100	23	141	0	10.2	0	0	0
	9	7	393	.08	55	26	5	0	100	23	141	0	9.7	0	0	0
Ave Period 1 04-08-2023 03:01	11.25	9.2	420.1	.101333	59.3	29.15	6.55	0	100	23	141	0	10.1533	0	0	0
	17	15	433	.12	68	35	8	0	100	23	141	0	10.2	0	0	0
	5	3	406	.08	54	23	5	0	100	23	141	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

03-08-2023

Start Date 3:02:00 PM

End Date 04-08-2023

3:01:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	15.4395	10.2930	370.723	.102048	45.2819	26.2131	14.6277	.009326	94.7416	24.1986	147.876	.087916	10.1493	0	0	0
Max	61	55	448	.48	119	69	76	.56	100	30	343	5.7	10.5	0	0	0
Min	2	1	303	0	2	1	5	0	64	23	1	0	9.6	0	0	0
Ave Period 1 04-08-2023 04:01	12.1166	10.35	430.833	.1	57.2333	29.8333	6.88333	0	100	23	141	0	10.16	0	0	0
...	16	15	445	.19	67	36	11	0	100	23	141	0	10.2	0	0	0
...	7	5	418	.08	54	25	5	0	100	23	141	0	9.7	0	0	0
Ave Period 1 04-08-2023 05:01	15.35	10.4	432.983	.113833	55.7833	28.3333	6.26666	0	100	23	141	0	10.1433	0	0	0
...	27	13	439	.13	64	32	9	0	100	23	141	0	10.2	0	0	0
...	9	7	427	.07	52	25	5	0	100	23	141	0	9.7	0	0	0
Ave Period 1 04-08-2023 06:01	22.4	12.15	434.066	.107	56.4333	29.0166	7.4	0	100	23	141	0	10.1233	0	0	0
...	33	19	447	.21	60	34	10	0	100	23	141	0	10.2	0	0	0
...	12	6	426	.06	52	23	5	0	100	23	141	0	9.7	0	0	0
Ave Period 1 04-08-2023 07:01	15.7833	12.8833	433.6	.170166	56.7166	28.65	9.58333	0	100	23.6833	141	0	10.1766	0	0	0
...	29	17	448	.29	68	34	14	0	100	24	141	0	10.2	0	0	0
...	11	9	417	.12	42	22	6	0	100	23	141	0	10	0	0	0
Ave Period 1 04-08-2023 08:01	14.5666	11.2833	410.55	.146833	51.6833	27.7166	10.5333	0	97.8333	24.2166	141	0	10.0766	0	0	0
...	27	16	427	.21	65	34	14	0	100	25	141	0	10.2	0	0	0
...	6	4	387	.06	35	20	7	0	94	24	141	0	9.7	0	0	0
Ave Period 1 04-08-2023 09:01	10.9	4.8	369.083	.079166	30.9	19.6833	8.43333	0	87.7166	25.3333	141	0	10.1066	0	0	0
...	28	11	386	.2	57	31	13	0	94	26	141	0	10.2	0	0	0
...	2	1	345	0	2	2	5	0	80	25	141	0	9.7	0	0	0
Ave Period 1 04-08-2023 10:01	7.18333	3.83333	340.466	.045833	18.0333	13.2166	10.8666	0	79.7166	26.1333	141	0	10.0766	0	0	0
...	16	10	348	.09	52	25	17	0	82	27	141	0	10.2	0	0	0
...	2	1	334	0	2	1	5	0	77	26	141	0	9.7	0	0	0
Ave Period 1 04-08-2023 11:01	12.2166	8.11666	330.666	.078	32.5333	21.1333	15.6166	.0295	88.5666	25.8666	141	0	10.0733	0	0	0
...	17	14	345	.12	59	37	21	.16	92	26	141	0	10.2	0	0	0
...	2	1	321	.05	2	1	8	0	82	25	141	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

03-08-2023

Start Date

3:02:00 PM

End Date 04-08-2023

3:01:00 PM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	15.4395	10.2930	370.723	.102048	45.2819	26.2131	14.6277	.009326	94.7416	24.1986	147.876	.087916	10.1493	0	0	0
Max	61	55	448	.48	119	69	76	.56	100	30	343	5.7	10.5	0	0	0
Min	2	1	303	0	2	1	5	0	64	23	1	0	9.6	0	0	0
Ave Period 1 04-08-2023 12:01	15.3666	11.0666	325.683	.097166	31.5833	23.0666	16.45	0	87.9166	26	154.1	.02	10.0233	0	0	0
	30	15	335	.17	67	34	21	0	92	26	164	.3	10.2	0	0	0
	10	9	314	.06	10	14	14	0	85	26	141	0	9.7	0	0	0
Ave Period 1 04-08-2023 01:01	20.2	12.7166	325.833	.112166	26.0666	19.55	13.3666	.093833	91.6166	25.2833	166.883	.003333	9.99	0	0	0
	33	17	334	.15	41	25	19	.24	97	26	204	.1	10.2	0	0	0
	11	8	322	.09	11	14	9	0	86	24	148	0	9.6	0	0	0
Ave Period 1 04-08-2023 02:01	27.5833	13.4	321.366	.111333	50.45	32.1	13.9666	.024333	96.0166	24.9666	166.75	0	9.99	0	0	0
	37	18	330	.13	63	41	18	.23	100	25	197	0	10.2	0	0	0
	15	8	313	.09	32	23	11	0	93	24	141	0	9.6	0	0	0
Ave Period 1 04-08-2023 03:01	8.31666	4.7	315.683	.128833	46.5166	32.4833	18.1	0	84.3333	26	162.45	.24	10.025	0	0	0
	18	10	349	.43	119	69	30	0	93	27	315	1.1	10.2	0	0	0
	2	1	304	.09	4	16	15	0	78	25	12	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

06-09-2023

Start Date 10:54:00 AM

Location: Plant Site

End Date 07-09-2023
10:53:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	8.20763	5.00972	360.762	.091861	19.9569	27.7777	12.3993	.007076	90.9784	24.5527	153.508	.24875	10.2106	0	0	0
Max	78	51	427	.44	302	119	71	.57	100	30	360	4.4	10.5	0	0	0
Min	2	1	305	0	2	1	0	0	55	23	0	0	9.7	0	0	0
EPAS 919217	8.20763	5.00972	360.762	.091861	19.9569	27.7777	12.3993	.007076	90.9784	24.5527	153.508	.24875	10.2106	0	0	0
	78	51	427	.44	302	119	71	.57	100	30	360	4.4	10.5	0	0	0
	2	1	305	0	2	1	0	0	55	23	0	0	9.7	0	0	0
Daily Wed, Sep 6, 2023	10.2010	5.94020	338.857	.119198	31.9173	44.3905	18.7137	.012646	91.0954	24.7290	191.627	.324427	10.2456	0	0	0
	78	51	410	.44	302	119	71	.57	100	29	360	4.4	10.5	0	0	0
	2	1	305	0	2	1	0	0	60	23	0	0	9.7	0	0	0
Ave Period 1 06-09-2023 11:53	8.96666	4.16666	324.916	.1535	107.833	80.2333	54.4833	.059333	99.2166	24	161.783	1.37666	10.3	0	0	0
	16	9	333	.21	302	116	71	.16	100	24	202	4	10.5	0	0	0
	2	1	323	.03	14	16	28	0	96	24	143	0	9.9	0	0	0
Ave Period 1 06-09-2023 12:53	3.5	1.36666	314.75	.142166	30.1	72.4333	42.1166	.014166	88.95	25.1666	141.616	.093333	10.3166	0	0	0
	11	4	324	.18	108	97	54	.21	100	26	292	.8	10.5	0	0	0
	2	1	313	.1	2	34	23	0	81	24	62	0	9.9	0	0	0
Ave Period 1 06-09-2023 01:53	10.85	4.88333	313.616	.1725	100.483	103.433	46.35	.079666	93.4166	24.4166	166.433	.678333	10.3	0	0	0
	25	14	323	.21	207	119	54	.57	100	25	250	2.8	10.5	0	0	0
	2	1	305	.12	23	58	30	0	86	24	65	0	9.9	0	0	0
Ave Period 1 06-09-2023 02:53	2.46666	1	314.883	.178333	8.71666	83.75	35.35	0	82.2	25.4166	89.45	.225	10.2933	0	0	0
	8	1	323	.21	28	108	45	0	92	27	330	1.4	10.5	0	0	0
	2	1	311	.14	2	63	26	0	70	25	5	0	9.9	0	0	0
Ave Period 1 06-09-2023 03:53	4.83333	3.16666	318.866	.067833	2	23.65	14.35	0	65.9666	28	253.183	.833333	10.27	0	0	0
	16	10	325	.15	2	72	31	0	73	29	357	4.4	10.5	0	0	0
	2	1	305	0	2	1	0	0	60	27	35	0	9.9	0	0	0
Ave Period 1 06-09-2023 04:53	38.2333	21.65	318.866	.017833	2	10.15	4.93333	.011333	71.6166	27.0666	216.9	.916666	10.255	0	0	0
	78	44	330	.08	2	28	9	.14	93	29	327	3.4	10.3	0	0	0
	3	1	313	0	2	1	0	0	61	25	148	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

06-09-2023

Start Date

10:54:00 AM

End Date 07-09-2023

10:53:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	8.20763	5.00972	360.762	.091861	19.9569	27.7777	12.3993	.007076	90.9784	24.5527	153.508	.24875	10.2106	0	0	0
Max	78	51	427	.44	302	119	71	.57	100	30	360	4.4	10.5	0	0	0
Min	2	1	305	0	2	1	0	0	55	23	0	0	9.7	0	0	0
Ave Period 1 06-09-2023 05:53	23.9833	19.6666	317.233	.147666	2.88333	21.5166	14.3333	.001166	93.0333	25	204.983	.015	10.1983	0	0	0
	49	51	331	.44	28	37	20	.04	95	25	222	.2	10.3	0	0	0
	4	2	312	.07	2	13	7	0	91	25	148	0	9.9	0	0	0
Ave Period 1 06-09-2023 06:53	4.28333	2.5	334.6	.144	23.7333	32.4833	12.2833	0	96.5833	24.45	228.366	.023333	10.2216	0	0	0
	10	8	350	.41	38	40	17	0	100	25	351	.7	10.3	0	0	0
	2	1	323	.09	11	28	10	0	93	24	12	0	9.7	0	0	0
Ave Period 1 06-09-2023 07:53	13.45	8.08333	348.966	.1295	30.4166	32.2	8.41666	0	96.15	24	331.05	0	10.185	0	0	0
	26	12	374	.27	43	41	18	0	99	24	351	0	10.3	0	0	0
	7	4	342	.07	23	27	4	0	94	24	328	0	9.7	0	0	0
Ave Period 1 06-09-2023 08:53	7.73333	3.68333	367.233	.119666	35.4833	34.0333	5.56666	0	98.85	24	346.25	0	10.2116	0	0	0
	13	7	376	.21	42	41	9	0	100	24	351	0	10.3	0	0	0
	2	1	354	.08	29	27	2	0	96	24	341	0	9.7	0	0	0
Ave Period 1 06-09-2023 09:53	7.95	5.1	365.216	.096666	38.0333	37.5166	2.58333	0	98.2333	23.8333	219.933	.085	10.1966	0	0	0
	13	10	378	.14	46	43	6	0	100	24	360	.8	10.3	0	0	0
	2	1	354	.07	33	32	0	0	97	23	0	0	9.7	0	0	0
Ave Period 1 06-09-2023 10:53	4.51666	1.23333	373.25	.0995	24.1666	29.3166	2.5	0	99.1333	23.3	114.066	.003333	10.225	0	0	0
	10	4	386	.13	36	40	4	0	100	24	339	.1	10.3	0	0	0
	2	1	355	.06	10	16	0	0	96	23	15	0	9.9	0	0	0
Ave Period 1 06-09-2023 11:53	2.63333	1.16666	386.133	.086166	11.4333	19.3	1.73333	0	100	23	33	0	10.22	0	0	0
	6	3	406	.13	18	24	3	0	100	23	33	0	10.3	0	0	0
	2	1	366	.05	7	13	0	0	100	23	33	0	9.9	0	0	0
Ave Period 1 06-09-2023 11:59	2.33333	1.5	405	.061666	8.33333	15	1.5	0	100	23	33	0	10.25	0	0	0
	4	3	410	.07	10	16	3	0	100	23	33	0	10.3	0	0	0
	2	1	400	.06	7	13	0	0	100	23	33	0	10.2	0	0	0



Environmental Report

Record Cnt 1440

06-09-2023

Start Date

10:54:00 AM

End Date 07-09-2023

10:53:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	8.20763	5.00972	360.762	.091861	19.9569	27.7777	12.3993	.007076	90.9784	24.5527	153.508	.24875	10.2106	0	0	0
Max	78	51	427	.44	302	119	71	.57	100	30	360	4.4	10.5	0	0	0
Min	2	1	305	0	2	1	0	0	55	23	0	0	9.7	0	0	0
Daily	5.81192	3.89143	387.088	.059006	5.58256	7.81192	4.81039	.000382	90.8379	24.3409	107.695	.157798	10.1685	0	0	0
Thu, Sep 7, 2023	18	16	427	.13	21	21	20	.13	100	30	340	3.5	10.3	0	0	0
	2	1	333	0	2	1	0	0	55	23	0	0	9.7	0	0	0
Ave Period 1 07-09-2023 12:53	3.29629	1.92592	400.111	.049629	4.31481	14.7777	1.07407	0	100	23	31.3333	0	10.2148	0	0	0
	10	6	414	.06	10	21	3	0	100	23	33	0	10.3	0	0	0
	2	1	386	.04	2	11	0	0	100	23	29	0	9.9	0	0	0
Ave Period 1 07-09-2023 01:53	3.61666	1.25	409.816	.057166	3.6	14.3666	2.35	0	100	23	29	0	10.1983	0	0	0
	9	4	426	.08	10	20	5	0	100	23	29	0	10.3	0	0	0
	2	1	396	.05	2	6	1	0	100	23	29	0	9.7	0	0	0
Ave Period 1 07-09-2023 02:53	4.86666	2.81666	400.316	.094833	2.23333	11.55	2.6	0	100	23	29	0	10.1866	0	0	0
	12	8	407	.12	5	17	5	0	100	23	29	0	10.3	0	0	0
	2	1	394	.07	2	4	0	0	100	23	29	0	9.7	0	0	0
Ave Period 1 07-09-2023 03:53	5.43333	3.75	416.966	.077	11.25	7.91666	2.51666	0	100	23	29	0	10.17	0	0	0
	12	8	427	.09	21	13	4	0	100	23	29	0	10.3	0	0	0
	2	1	405	.07	2	3	1	0	100	23	29	0	9.7	0	0	0
Ave Period 1 07-09-2023 04:53	9.61666	7.46666	396.733	.070166	10.8166	7.75	2.56666	0	100	23	209.6	0	10.21	0	0	0
	15	13	417	.09	19	11	5	0	100	23	338	0	10.3	0	0	0
	5	3	384	.05	2	2	1	0	100	23	4	0	10.2	0	0	0
Ave Period 1 07-09-2023 05:53	10.9	8.91666	397.216	.062666	5.96666	7.23333	2.73333	0	100	23	9.2	0	10.165	0	0	0
	18	16	406	.09	12	11	4	0	100	23	22	0	10.3	0	0	0
	6	4	385	.06	2	3	1	0	100	23	8	0	9.7	0	0	0
Ave Period 1 07-09-2023 06:53	9.86666	7.36666	400.45	.090333	9.68333	9.93333	5.5	0	100	23	201.683	0	10.16	0	0	0
	18	15	407	.12	15	15	8	0	100	23	340	0	10.2	0	0	0
	3	1	395	.06	3	6	2	0	100	23	8	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

06-09-2023

Start Date

10:54:00 AM

End Date 07-09-2023

10:53:00 AM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	8.20763	5.00972	360.762	.091861	19.9569	27.7777	12.3993	.007076	90.9784	24.5527	153.508	.24875	10.2106	0	0	0
Max	78	51	427	.44	302	119	71	.57	100	30	360	4.4	10.5	0	0	0
Min	2	1	305	0	2	1	0	0	55	23	0	0	9.7	0	0	0
Ave Period 1 07-09-2023 07:53	8.16666	5.16666	389.666	.09	6.11666	7.83333	7.26666	0	96.0833	23.6166	192.533	.018333	10.1583	0	0	0
	15	8	397	.13	15	16	10	0	100	25	236	.2	10.3	0	0	0
	3	1	374	.06	2	1	5	0	85	23	147	0	9.7	0	0	0
Ave Period 1 07-09-2023 08:53	3.63333	1.75	366	.048666	3.3	3.26666	7.41666	.004	79.4	25.75	154.566	.161666	10.1533	0	0	0
	9	7	385	.09	19	16	12	.13	87	27	199	.7	10.2	0	0	0
	2	1	346	.02	2	1	2	0	70	25	9	0	9.7	0	0	0
Ave Period 1 07-09-2023 09:53	2	1.01666	344.366	.004	2	1	4.86666	.000166	64.7833	27.7333	147.133	.506666	10.1283	0	0	0
	2	2	356	.03	2	1	11	.01	70	29	337	2.5	10.2	0	0	0
	2	1	335	0	2	1	1	0	60	27	0	0	9.7	0	0	0
Ave Period 1 07-09-2023 10:53	2.28333	1.18333	337.633	.003666	2	1	13.65	0	59.8666	29.5166	143.966	1.03333	10.1133	0	0	0
	10	8	345	.03	2	1	20	0	62	30	311	3.5	10.2	0	0	0
	2	1	333	0	2	1	9	0	55	29	2	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

13-09-2023

Start Date

2:14:00 PM

Location: Pyi Nyaung Village

End Date

14-09-2023

2:13:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	14.7604	3.32708	359.847	.091638	16.3583	13.9555	10.2861	.000868	90.2694	24.7381	234.889	.010277	10.4608	0	0	0
Max	292	16	406	.87	76	47	77	.13	100	31	342	1	10.7	0	0	0
Min	2	1	305	0	2	1	0	0	49	22	32	0	9.9	0	0	0
EPAS 919217	14.7604	3.32708	359.847	.091638	16.3583	13.9555	10.2861	.000868	90.2694	24.7381	234.889	.010277	10.4608	0	0	0
	292	16	406	.87	76	47	77	.13	100	31	342	1	10.7	0	0	0
	2	1	305	0	2	1	0	0	49	22	32	0	9.9	0	0	0
Daily	21.2849	4.06825	353.148	.092747	13.6757	13.5972	15.4283	.000426	93.6126	24.6587	261.822	0	10.4935	0	0	0
Wed, Sep 13,	292	16	392	.87	76	47	77	.13	100	26	342	0	10.7	0	0	0
	2	1	305	0	2	1	0	0	80	23	32	0	10	0	0	0
Ave Period 1 13-09-2023 03:13	4.78333	1.23333	317.1	.081666	38.9333	30.2166	16.25	0	89.5166	25.4333	128.4	0	10.5483	0	0	0
	10	3	325	.13	76	47	25	0	97	26	342	0	10.6	0	0	0
	2	1	305	.03	2	15	8	0	81	25	32	0	10.2	0	0	0
Ave Period 1 13-09-2023 04:13	6.35	1.1	328.4	.137	9.05	14.8	15.75	0	85.2166	26	332.533	0	10.505	0	0	0
	13	4	336	.46	32	29	38	0	89	26	342	0	10.6	0	0	0
	2	1	314	.02	2	1	8	0	80	26	322	0	10.2	0	0	0
Ave Period 1 13-09-2023 05:13	8.51666	3.61666	326.733	.110166	3.38333	9.41666	16.6	0	85.0166	26	322	0	10.5116	0	0	0
	25	8	337	.4	13	21	31	0	90	26	322	0	10.7	0	0	0
	2	1	321	0	2	1	11	0	81	26	322	0	10.2	0	0	0
Ave Period 1 13-09-2023 06:13	80.2	4.46666	337.383	.25	3.03333	6.65	33.9166	.003166	88.5666	25.4	322	0	10.5016	0	0	0
	292	8	355	.87	15	14	77	.13	96	26	322	0	10.6	0	0	0
	10	1	332	0	2	1	9	0	80	25	322	0	10.2	0	0	0
Ave Period 1 13-09-2023 07:13	39.3166	8.18333	352.183	.101666	10.2166	10.7666	23.2333	.001	99.4	24.4666	322.083	0	10.485	0	0	0
	114	16	362	.85	17	15	51	.03	100	25	323	0	10.6	0	0	0
	10	1	344	0	2	6	10	0	94	24	321	0	10.2	0	0	0
Ave Period 1 13-09-2023 08:13	26.0833	6.9	365.35	.009833	13.7666	10.4833	16.8	0	100	24	290.65	0	10.485	0	0	0
	46	15	386	.22	26	16	27	0	100	24	323	0	10.6	0	0	0
	4	1	353	0	6	6	10	0	100	24	281	0	10	0	0	0



Environmental Report

Record Cnt 1440

13-09-2023

Start Date

2:14:00 PM

End Date

14-09-2023

2:13:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	14.7604	3.32708	359.847	.091638	16.3583	13.9555	.000868	90.2694	24.7381	234.889	.010277	10.4608	0	0	0	
Max	292	16	406	.87	76	47	.13	100	31	342	1	10.7	0	0	0	
Min	2	1	305	0	2	1	0	49	22	32	0	9.9	0	0	0	
Ave Period 1 13-09-2023 09:13	12.3833	2.38333	373.85	0	15.6833	10.6833	9.2	0	100	24	281	0	10.4733	0	0	0
	18	6	376	0	24	15	18	0	100	24	281	0	10.6	0	0	0
	3	1	357	0	5	4	3	0	100	24	281	0	10	0	0	0
Ave Period 1 13-09-2023 10:13	11.4833	1.65	382.6	.123833	17.8833	15	12.2166	0	100	24	277.416	0	10.5	0	0	0
	65	4	392	.54	30	19	22	0	100	24	281	0	10.5	0	0	0
	2	1	375	0	9	8	6	0	100	24	222	0	10.5	0	0	0
Ave Period 1 13-09-2023 11:13	10.1166	5.81666	373.266	.028833	8.43333	12.4166	2.8	0	92.2833	23.9	173.716	0	10.46	0	0	0
	16	11	386	.09	21	19	6	0	100	24	223	0	10.5	0	0	0
	3	1	361	0	2	6	0	0	85	23	114	0	10	0	0	0
Ave Period 1 13-09-2023 11:59	11.2826	5.71739	381.152	.081956	17.1956	16.1304	5.10869	0	96.8913	23	140	0	10.4565	0	0	0
	28	13	392	.12	24	22	8	0	100	23	140	0	10.5	0	0	0
	2	1	365	.04	10	12	3	0	93	23	140	0	10	0	0	0
Daily Thu, Sep 14, 2023	10.2833	2.81850	364.444	.090878	18.1990	14.2014	6.75761	.001170	87.9754	24.7927	216.408	.017330	10.4384	0	0	0
	155	14	406	.69	58	31	33	.13	100	31	334	1	10.5	0	0	0
	2	1	320	0	2	1	0	0	49	22	40	0	9.9	0	0	0
Ave Period 1 14-09-2023 12:13	2.21428	1.07142	388.428	.068571	17	17.1428	5.35714	0	98.5	23	140	0	10.5	0	0	0
	4	2	396	.11	23	22	7	0	100	23	140	0	10.5	0	0	0
	2	1	384	.05	9	13	4	0	98	23	140	0	10.5	0	0	0
Ave Period 1 14-09-2023 01:13	5.83333	1.93333	398.166	.095166	19.1333	16.6833	5.65	0	100	23	140	0	10.46	0	0	0
	10	5	406	.16	26	24	8	0	100	23	140	0	10.5	0	0	0
	2	1	387	.05	13	12	4	0	100	23	140	0	10	0	0	0
Ave Period 1 14-09-2023 02:13	6.8	3.25	385.45	.051	13.3	14.6166	3.35	.004166	99.5	23	140	0	10.4566	0	0	0
	11	7	406	.1	25	24	7	.13	100	23	140	0	10.5	0	0	0
	2	1	365	0	3	10	2	0	98	23	140	0	10	0	0	0



Environmental Report

Record Cnt 1440

13-09-2023

Start Date

2:14:00 PM

End Date

14-09-2023

2:13:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	14.7604	3.32708	359.847	.091638	16.3583	13.9555	10.2861	.000868	90.2694	24.7381	234.889	.010277	10.4608	0	0	0
Max	292	16	406	.87	76	47	77	.13	100	31	342	1	10.7	0	0	0
Min	2	1	305	0	2	1	0	0	49	22	32	0	9.9	0	0	0
Ave Period 1 14-09-2023 03:13	12.7166	8.23333	360.366	.0715	13.15	16.8333	1.26666	.004166	100	22.4833	216.35	.013333	10.4566	0	0	0
	25	14	365	.1	24	23	4	.13	100	23	334	.2	10.5	0	0	0
	5	1	354	.06	2	12	0	0	100	22	127	0	10	0	0	0
Ave Period 1 14-09-2023 04:13	9.98333	4.95	364.933	.101666	24.8833	20.5833	1.21666	0	100	22.1166	304.466	0	10.46	0	0	0
	16	8	374	.13	36	26	3	0	100	23	311	0	10.5	0	0	0
	4	1	361	.08	19	16	0	0	100	22	299	0	10	0	0	0
Ave Period 1 14-09-2023 05:13	25.4666	1	379.133	.282833	30.6	18.7833	11.8333	0	100	22.9	299	0	10.4583	0	0	0
	61	1	392	.48	38	26	24	0	100	23	299	0	10.5	0	0	0
	10	1	366	.08	24	12	1	0	100	22	299	0	10	0	0	0
Ave Period 1 14-09-2023 06:13	21.55	3.21666	390	.2605	33.5333	23.1666	13.4166	.008333	100	23	299	0	10.4916	0	0	0
	90	8	397	.69	40	29	29	.13	100	23	299	0	10.5	0	0	0
	2	1	371	0	26	16	2	0	100	23	299	0	10	0	0	0
Ave Period 1 14-09-2023 07:13	17.0333	1.93333	384.75	.0975	35.6166	23.8166	9.63333	0	100	23	300.916	0	10.4466	0	0	0
	29	7	396	.47	44	29	20	0	100	23	302	0	10.5	0	0	0
	9	1	375	0	22	17	3	0	100	23	299	0	10	0	0	0
Ave Period 1 14-09-2023 08:13	17.8	2.35	383.833	.079333	32.15	20.1333	9.9	0	100	23.3166	302	0	10.45	0	0	0
	155	8	386	.65	50	28	33	0	100	24	302	0	10.5	0	0	0
	2	1	375	0	21	15	1	0	100	23	302	0	10	0	0	0
Ave Period 1 14-09-2023 09:13	5.26666	1.51666	363.233	.0815	35.35	22.1333	7.98333	0	97.1666	24.1333	302	0	10.4466	0	0	0
	16	6	386	.34	58	31	17	0	100	25	302	0	10.5	0	0	0
	2	1	355	0	16	13	3	0	89	24	302	0	10	0	0	0
Ave Period 1 14-09-2023 10:13	4.18333	1	352.15	.039833	8.88333	12.8166	4.65	0	84.2833	25.3333	160.766	.011666	10.4433	0	0	0
	13	1	355	.14	39	26	15	0	92	26	302	.2	10.5	0	0	0
	2	1	345	0	2	6	0	0	77	25	40	0	10	0	0	0



Environmental Report

Record Cnt 1440

13-09-2023

Start Date

2:14:00 PM

End Date

14-09-2023

2:13:00 PM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	14.7604	3.32708	359.847	.091638	16.3583	13.9555	10.2861	.000868	90.2694	24.7381	234.889	.010277	10.4608	0	0	0
Max	292	16	406	.87	76	47	77	.13	100	31	342	1	10.7	0	0	0
Min	2	1	305	0	2	1	0	0	49	22	32	0	9.9	0	0	0
Ave Period 1 14-09-2023 11:13	4.38333	1.2	337.55	.0275	2.46666	5.31666	3.41666	0	71.1833	26.8666	133.55	.001666	10.435	0	0	0
	15	4	353	.17	8	17	11	0	79	28	322	.1	10.5	0	0	0
	2	1	326	0	2	1	0	0	66	26	70	0	10	0	0	0
Ave Period 1 14-09-2023 12:13	3.31666	1.25	332.266	.004	2	1.06666	3.33333	0	65.1833	28.2166	141.816	.068333	10.4366	0	0	0
	10	6	336	.09	2	3	10	0	71	29	192	.9	10.5	0	0	0
	2	1	320	0	2	1	0	0	59	27	78	0	10	0	0	0
Ave Period 1 14-09-2023 01:13	9.26666	7.03333	330.966	.033833	2	1.18333	6.91666	0	58.6833	29.4	143.533	.016666	10.3116	0	0	0
	14	11	342	.16	2	9	16	0	62	31	172	.3	10.5	0	0	0
	6	1	324	0	2	1	0	0	56	29	71	0	9.9	0	0	0
Ave Period 1 14-09-2023 02:13	2.25	1	333.833	.051333	2	1	12.3666	0	53.2	30.75	164.15	.135	10.37	0	0	0
	8	1	341	.18	2	1	23	0	57	31	246	1	10.5	0	0	0
	2	1	324	0	2	1	5	0	49	30	74	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

11-09-2023

Start Date 2:23:00 PM

Location: Ku Pyin Village

End Date 12-09-2023
2:22:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	11.2013	5.42638	370.045	.072458	31.6152	18.9180	11.5805	.006694	89.2097	25.3701	124.796	.160486	10.1790	0	0	0
Max	71	50	427	.32	105	50	39	.49	100	32	358	4	10.5	0	0	0
Min	2	1	314	0	2	1	0	0	51	23	0	0	9.7	0	0	0
EPAS 919217	11.2013	5.42638	370.045	.072458	31.6152	18.9180	11.5805	.006694	89.2097	25.3701	124.796	.160486	10.1790	0	0	0
	71	50	427	.32	105	50	39	.49	100	32	358	4	10.5	0	0	0
	2	1	314	0	2	1	0	0	51	23	0	0	9.7	0	0	0
Daily	14.5823	7.50779	364.946	.079965	40.7816	23.9341	15.3951	.001317	90.5927	25.4783	95.2599	.096880	10.2161	0	0	0
Mon, Sep 11, 2023	60	49	414	.28	86	46	39	.13	100	32	358	2.1	10.5	0	0	0
	2	1	316	0	2	1	1	0	56	24	0	0	9.9	0	0	0
Ave Period 1	4.1	2.7	324.2	.000333	2	1	32.8833	0	60.0666	30.6166	184.05	.36	10.2783	0	0	0
11-09-2023 03:22	15	12	331	.02	2	1	39	0	65	32	358	2.1	10.5	0	0	0
	2	1	316	0	2	1	26	0	56	29	20	0	9.9	0	0	0
Ave Period 1	44.05	29.9666	338.316	.005	2	1	24.8833	0	74.3166	27.2666	158.95	.54	10.2266	0	0	0
11-09-2023 04:22	60	49	355	.04	2	1	34	0	79	30	314	2	10.5	0	0	0
	8	6	318	0	2	1	12	0	65	26	26	0	9.9	0	0	0
Ave Period 1	25.4333	12.2833	345.966	.088333	9.31666	9.85	21.4666	0	84.65	26	196.766	0	10.255	0	0	0
11-09-2023 05:22	56	49	364	.14	39	30	30	0	89	26	214	0	10.3	0	0	0
	6	2	336	0	2	1	12	0	77	26	155	0	9.9	0	0	0
Ave Period 1	26.4833	10.5666	343.3	.057166	24.1833	19.2166	19.85	0	91.1666	25.2333	167.35	.031666	10.2316	0	0	0
11-09-2023 06:22	59	17	354	.28	59	36	24	0	95	26	352	.4	10.3	0	0	0
	5	2	334	0	10	12	15	0	87	25	0	0	9.9	0	0	0
Ave Period 1	7.05	4.01666	359.05	.118	46.95	25.8333	13.8166	0	99.3333	25	16	0	10.215	0	0	0
11-09-2023 07:22	11	7	369	.22	57	34	21	0	100	25	43	0	10.3	0	0	0
	3	1	344	.08	40	19	10	0	95	25	0	0	9.9	0	0	0
Ave Period 1	7.28333	1.11666	374.3	.153666	65.1	37.6166	11.2333	.012666	100	24.1	43	0	10.2233	0	0	0
11-09-2023 08:22	14	4	386	.26	81	45	14	.13	100	25	43	0	10.3	0	0	0
	3	1	364	.09	42	19	8	0	100	24	43	0	10.2	0	0	0



Environmental Report

Record Cnt 1440

11-09-2023

Start Date

2:23:00 PM

End Date

12-09-2023

2:22:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	11.2013	5.42638	370.045	.072458	31.6152	18.9180	11.5805	.006694	89.2097	25.3701	124.796	.160486	10.1790	0	0	0
Max	71	50	427	.32	105	50	39	.49	100	32	358	4	10.5	0	0	0
Min	2	1	314	0	2	1	0	0	51	23	0	0	9.7	0	0	0
Ave Period 1 11-09-2023 09:22	6.75	2.56666	378.15	.090833	67.2333	37.5833	6.88333	0	100	24	42.9833	0	10.1866	0	0	0
	11	7	386	.15	86	46	9	0	100	24	43	0	10.3	0	0	0
	2	1	365	.06	57	32	3	0	100	24	42	0	9.9	0	0	0
Ave Period 1 11-09-2023 10:22	8.2	4.61666	397.466	.087166	66.4166	37.5333	6.65	0	100	24	43	0	10.1766	0	0	0
	14	8	412	.12	81	46	14	0	100	24	43	0	10.3	0	0	0
	2	1	385	.06	58	31	3	0	100	24	43	0	9.9	0	0	0
Ave Period 1 11-09-2023 11:22	6.21666	3.63333	400.5	.100166	68.1666	37.6666	7.21666	0	100	24	40.55	0	10.1733	0	0	0
	13	7	414	.15	85	43	13	0	100	24	43	0	10.3	0	0	0
	2	1	386	.08	62	34	1	0	100	24	38	0	9.9	0	0	0
Ave Period 1 11-09-2023 11:59	7.56756	1.18918	402.675	.110810	66.1891	37.0810	5.13513	0	100	24	38	0	10.1810	0	0	0
	11	4	408	.13	73	43	10	0	100	24	38	0	10.3	0	0	0
	3	1	397	.1	63	33	3	0	100	24	38	0	9.9	0	0	0
Daily Tue, Sep 12, 2023	8.94090	4.03476	373.455	.067439	25.4866	15.5643	9.03012	.010289	88.2850	25.2977	144.544	.203012	10.1543	0	0	0
	71	50	427	.32	105	50	39	.49	100	31	358	4	10.3	0	0	0
	2	1	314	0	2	1	0	0	51	23	6	0	9.7	0	0	0
Ave Period 1 12-09-2023 12:22	2.52173	1.21739	397.782	.077826	63.5652	33.3913	2.43478	0	100	24	38	0	10.2608	0	0	0
	6	3	416	.09	78	39	4	0	100	24	38	0	10.3	0	0	0
	2	1	386	.07	54	28	1	0	100	24	38	0	10.2	0	0	0
Ave Period 1 12-09-2023 01:22	3.13333	1.1	403.766	.076833	51.25	27.0666	2.05	0	100	24	30.3166	0	10.205	0	0	0
	9	3	417	.09	62	33	4	0	100	24	38	0	10.3	0	0	0
	2	1	396	.06	44	21	0	0	100	24	20	0	9.9	0	0	0
Ave Period 1 12-09-2023 02:22	7.63333	1.13333	403.766	.070333	40.2	22.6	.75	0	100	23.5666	20	0	10.1966	0	0	0
	15	5	417	.08	50	30	3	0	100	24	20	0	10.3	0	0	0
	2	1	395	.06	32	13	0	0	100	23	20	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

11-09-2023

Start Date

2:23:00 PM

End Date 12-09-2023

2:22:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	11.2013	5.42638	370.045	.072458	31.6152	18.9180	11.5805	.006694	89.2097	25.3701	124.796	.160486	10.1790	0	0	0
Max	71	50	427	.32	105	50	39	.49	100	32	358	4	10.5	0	0	0
Min	2	1	314	0	2	1	0	0	51	23	0	0	9.7	0	0	0
Ave Period 1 12-09-2023 03:22	7.65	2.26666	406.15	.081	34.5166	19.1333	.633333	0	100	23	20	0	10.1933	0	0	0
	16	8	416	.09	37	25	3	0	100	23	20	0	10.3	0	0	0
	2	1	396	.07	30	13	0	0	100	23	20	0	9.9	0	0	0
Ave Period 1 12-09-2023 04:22	10.8833	1.93333	405.966	.100666	32.9333	19.2333	1.48333	0	100	23	20	0	10.2116	0	0	0
	17	6	427	.12	40	26	3	0	100	23	20	0	10.3	0	0	0
	4	1	392	.08	24	14	0	0	100	23	20	0	9.9	0	0	0
Ave Period 1 12-09-2023 05:22	7.16666	2.63333	405.95	.089166	31.4	18.1166	2.41666	0	100	23	20	0	10.1716	0	0	0
	12	7	417	.11	37	24	4	0	100	23	20	0	10.3	0	0	0
	2	1	396	.08	26	12	0	0	100	23	20	0	9.9	0	0	0
Ave Period 1 12-09-2023 06:22	5.15	2.03333	399.483	.103166	29.7166	18.3166	3.23333	0	100	23	327.65	0	10.165	0	0	0
	8	6	408	.19	36	23	7	0	100	23	333	0	10.3	0	0	0
	2	1	394	.08	22	11	1	0	100	23	12	0	9.7	0	0	0
Ave Period 1 12-09-2023 07:22	8.33333	1.6	386.15	.1355	30.2	20.9666	6.9	.004	100	23.8666	333	0	10.16	0	0	0
	17	6	406	.32	44	29	15	.13	100	24	333	0	10.2	0	0	0
	3	1	366	.05	15	15	3	0	100	23	333	0	9.7	0	0	0
Ave Period 1 12-09-2023 08:22	5.01666	1.16666	369.166	.052166	17.9166	17.1833	5.03333	.000166	94.8166	24.3333	333	0	10.1566	0	0	0
	10	4	376	.08	38	30	8	.01	100	25	333	0	10.2	0	0	0
	2	1	353	.03	2	9	2	0	83	24	333	0	9.7	0	0	0
Ave Period 1 12-09-2023 09:22	2.08333	1.01666	347.283	.033	8.38333	9.35	4.96666	0	77.9833	26.6833	192.3	.001666	10.1566	0	0	0
	5	2	355	.06	53	37	11	0	86	28	342	.1	10.2	0	0	0
	2	1	344	0	2	1	0	0	67	26	21	0	9.7	0	0	0
Ave Period 1 12-09-2023 10:22	2	1.03333	346.8	.003833	2	1.03333	3.4	0	63.25	28.65	121.883	1.165	10.135	0	0	0
	2	2	363	.04	2	3	16	0	69	30	317	4	10.2	0	0	0
	2	1	335	0	2	1	0	0	59	28	54	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

11-09-2023

Start Date

2:23:00 PM

End Date

12-09-2023

2:22:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	11.2013	5.42638	370.045	.072458	31.6152	18.9180	11.5805	.006694	89.2097	25.3701	124.796	.160486	10.1790	0	0	0
Max	71	50	427	.32	105	50	39	.49	100	32	358	4	10.5	0	0	0
Min	2	1	314	0	2	1	0	0	51	23	0	0	9.7	0	0	0
Ave Period 1 12-09-2023 11:22	2.05	1	351.433	.000166	2	1	9.81666	0	55.4333	30.3833	147.083	1.32	10.105	0	0	0
	5	1	368	.01	2	1	19	0	60	31	347	3.4	10.2	0	0	0
	2	1	336	0	2	1	1	0	51	30	38	0	9.7	0	0	0
Ave Period 1 12-09-2023 12:22	3.13333	1.66666	336.866	0	2	1	26.5166	0	61.3166	30.0166	213.033	.326666	10.1266	0	0	0
	13	11	355	0	2	1	34	0	72	31	261	1.9	10.2	0	0	0
	2	1	324	0	2	1	12	0	52	28	19	0	9.7	0	0	0
Ave Period 1 12-09-2023 01:22	42.9666	29.7166	332.433	.0515	7.75	4.9	30.6833	.127166	89.1333	25.5833	160.35	.091666	10.0366	0	0	0
	71	50	344	.14	74	40	39	.49	100	28	298	.8	10.2	0	0	0
	2	1	323	0	2	1	25	0	72	25	82	0	9.7	0	0	0
Ave Period 1 12-09-2023 02:22	20.4333	9.26666	323.833	.142833	51.95	31.1666	31.0666	.016666	89.5666	25.5833	125.85	.015	10.1	0	0	0
	42	19	333	.17	105	50	38	.19	100	27	358	.2	10.2	0	0	0
	2	1	314	.13	39	2	22	0	83	25	6	0	9.7	0	0	0



Environmental Report

Record Cnt 1440

04-10-2023

Start Date 4:16:00 PM

Location: Plant Site

End Date 05-10-2023

4:15:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	13.1361	7.78125	407.980	.073152	28.6159	16.4326	15.7145	0	84.5263	25.8055	197.431	.880277	10.2803	0	0	0
Max	80	100	530	.47	92	47	47	0	100	31	352	6.4	10.5	0	0	0
Min	2	1	320	0	2	1	0	0	51	23	0	0	9.9	0	0	0
EPAS 919217	13.1361	7.78125	407.980	.073152	28.6159	16.4326	15.7145	0	84.5263	25.8055	197.431	.880277	10.2803	0	0	0
	80	100	530	.47	92	47	47	0	100	31	352	6.4	10.5	0	0	0
	2	1	320	0	2	1	0	0	51	23	0	0	9.9	0	0	0
Daily Wed, Oct 4, 2023	18.6745	12.6508	406.209	.086293	41.1810	22.5883	21.3426	0	87.8038	25.6961	252.825	.179741	10.3428	0	0	0
	77	100	499	.47	92	47	47	0	100	31	331	3.2	10.5	0	0	0
	2	1	324	0	2	1	4	0	51	23	2	0	9.9	0	0	0
Ave Period 1 04-10-2023 05:15 05:45	7.8	3.03333	332.716	.016833	2	1	32.15	0	57.3166	30.2333	248.516	.63	10.4533	0	0	0
	40	19	342	.12	2	1	46	0	71	31	306	2.3	10.5	0	0	0
	2	1	324	0	2	1	23	0	51	28	169	0	10	0	0	0
Ave Period 1 04-10-2023 06:15 06:45	48	36.7333	344.866	.053166	2.15	1.23333	39	0	76.5333	27.2833	196.866	.258333	10.4116	0	0	0
	77	100	371	.3	7	5	47	0	85	28	311	3.2	10.5	0	0	0
	5	6	332	0	2	1	29	0	69	26	122	0	10	0	0	0
Ave Period 1 04-10-2023 07:15 07:45	29.8833	19.1333	373.116	.114	21.6666	15.3833	28.2833	0	87.05	25.5833	238.116	.42	10.38	0	0	0
	55	54	406	.47	50	29	38	0	93	26	331	1.9	10.5	0	0	0
	10	3	355	0	2	1	18	0	83	25	24	0	10	0	0	0
Ave Period 1 04-10-2023 08:15 08:45	20.25	15.9166	402.3	.048166	40.9	24.05	20	0	91.95	25	197.55	.033333	10.345	0	0	0
	29	46	426	.11	50	29	26	0	94	25	202	.6	10.5	0	0	0
	13	10	375	0	30	18	15	0	90	25	155	0	9.9	0	0	0
Ave Period 1 04-10-2023 09:15 09:45	10.4333	7.83333	425.866	.117333	60.9833	33.1166	16.6166	0	95.0666	25	221.333	.048333	10.3333	0	0	0
	25	14	443	.18	75	40	23	0	97	25	312	.8	10.5	0	0	0
	6	3	397	.07	52	28	12	0	93	25	2	0	10.3	0	0	0
Ave Period 1 04-10-2023 10:15 10:45	9.61666	5.16666	451.25	.132166	67.7833	34.8166	11.8666	0	98.2166	24.1833	312	0	10.2783	0	0	0
	16	12	478	.18	85	42	16	0	100	25	312	0	10.5	0	0	0
	5	1	427	.1	55	29	9	0	95	24	312	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

04-10-2023

Start Date

4:16:00 PM

End Date 05-10-2023

4:15:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	13.1361	7.78125	407.980	.073152	28.6159	16.4326	15.7145	0	84.5263	25.8055	197.431	.880277	10.2803	0	0	0
Max	80	100	530	.47	92	47	47	0	100	31	352	6.4	10.5	0	0	0
Min	2	1	320	0	2	1	0	0	51	23	0	0	9.9	0	0	0
Ave Period 1 04-10-2023 11:15	10.7666	5.85	462.533	.107666	70.25	37.3666	7.53333	0	99.55	24	312	0	10.2683	0	0	0
	17	14	494	.14	85	47	10	0	100	24	312	0	10.5	0	0	0
	4	1	438	.08	60	32	4	0	98	24	312	0	9.9	0	0	0
Ave Period 1 04-10-2023 11:59	10.4545	5.68181	475.5	.106363	71.9090	37.7954	13.0909	0	100	23.7727	312	0	10.2477	0	0	0
	16	16	499	.13	92	43	21	0	100	24	312	0	10.3	0	0	0
	6	1	458	.08	66	34	4	0	100	23	312	0	9.9	0	0	0
Daily Thu, Oct 5, 2023	10.5030	5.46618	408.822	.066905	22.6424	13.5061	13.0389	0	82.9682	25.8575	171.096	1.21331	10.2506	0	0	0
	80	68	530	.34	81	42	44	0	100	31	352	6.4	10.5	0	0	0
	2	1	320	0	2	1	0	0	54	23	0	0	9.9	0	0	0
Ave Period 1 05-10-2023 12:15	13.25	4.1875	468.25	.09	75.5	38.75	14.125	0	100	23	312	0	10.3	0	0	0
	15	10	471	.1	81	42	17	0	100	23	312	0	10.3	0	0	0
	12	1	466	.08	72	36	11	0	100	23	312	0	10.3	0	0	0
Ave Period 1 05-10-2023 01:15	12.8666	4.18333	478.266	.078666	68.4	35.25	7.26666	0	100	23	201.95	.0133333	10.285	0	0	0
	26	58	499	.13	77	40	16	0	100	23	318	.4	10.5	0	0	0
	5	1	449	.03	60	31	2	0	100	23	26	0	9.9	0	0	0
Ave Period 1 05-10-2023 02:15	4.86666	1.23333	479.166	.065833	53.4666	28.5666	2.95	0	100	23.0333	26	0	10.2833	0	0	0
	12	4	500	.11	64	35	6	0	100	24	26	0	10.5	0	0	0
	2	1	441	.03	48	24	1	0	100	23	26	0	9.9	0	0	0
Ave Period 1 05-10-2023 03:15	5.7	1.93333	493.683	.0845	44.7666	22.7333	2.28333	0	100	23	26	0	10.2683	0	0	0
	11	9	510	.1	50	27	4	0	100	23	26	0	10.5	0	0	0
	2	1	479	.08	39	19	0	0	100	23	26	0	9.9	0	0	0
Ave Period 1 05-10-2023 04:15	7.7	1.51666	497	.087333	38.3166	20.2666	1.85	0	100	23	166.9	0	10.27	0	0	0
	11	8	530	.1	43	24	4	0	100	23	275	0	10.5	0	0	0
	2	1	463	.07	33	15	0	0	100	23	14	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

04-10-2023

Start Date 4:16:00 PM

End Date 05-10-2023

4:15:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	13.1361	7.78125	407.980	.073152	28.6159	16.4326	15.7145	0	84.5263	25.8055	197.431	.880277	10.2803	0	0	0
Max	80	100	530	.47	92	47	47	0	100	31	352	6.4	10.5	0	0	0
Min	2	1	320	0	2	1	0	0	51	23	0	0	9.9	0	0	0
Ave Period 1 05-10-2023 05:15	6.8	1.75	472.2	.129833	34.0333	19.6	3.3	0	100	23	200.3	0	10.2983	0	0	0
	11	6	511	.2	42	24	5	0	100	23	275	0	10.3	0	0	0
	3	1	452	.09	27	16	1	0	100	23	183	0	10.2	0	0	0
Ave Period 1 05-10-2023 06:15	11.0666	2.66666	470.833	.106833	25.8333	16.8333	2.55	0	100	23	185	0	10.26	0	0	0
	18	9	494	.16	31	20	6	0	100	23	185	0	10.3	0	0	0
	7	1	448	.08	18	11	1	0	100	23	185	0	9.9	0	0	0
Ave Period 1 05-10-2023 07:15	11.8166	3.56666	476.8	.1485	28.1333	18.8666	5.81666	0	99.95	23	184.6	0	10.2616	0	0	0
	27	43	500	.34	36	24	15	0	100	23	185	0	10.3	0	0	0
	5	1	446	.09	22	15	2	0	98	23	170	0	9.9	0	0	0
Ave Period 1 05-10-2023 08:15	3.41666	1.06666	425.65	.1365	28	19.3166	8.73333	0	89.75	24.55	149.383	.151666	10.2616	0	0	0
	11	3	454	.19	42	27	13	0	99	26	170	.8	10.3	0	0	0
	2	1	396	.03	6	9	5	0	78	23	147	0	9.9	0	0	0
Ave Period 1 05-10-2023 09:15	2.68333	1.11666	375.55	.053	4.58333	7.91666	6.56666	0	71.35	27.4	124.366	.501666	10.2583	0	0	0
	9	4	397	.16	25	15	12	0	80	29	160	2.6	10.3	0	0	0
	2	1	345	0	2	1	0	0	60	26	53	0	9.9	0	0	0
Ave Period 1 05-10-2023 10:15	2.48333	1.01666	344.533	.027666	2	1.03333	6.96666	0	63.5166	29.1833	146.4	1.77833	10.2016	0	0	0
	10	2	355	.06	2	3	11	0	66	30	222	4.2	10.3	0	0	0
	2	1	337	0	2	1	2	0	61	29	99	.3	9.9	0	0	0
Ave Period 1 05-10-2023 11:15	2.01666	1	338.016	0	2	1	11.95	0	61.6	29.7	184.45	2.76	10.2233	0	0	0
	3	1	353	0	2	1	22	0	66	31	268	5.5	10.3	0	0	0
	2	1	333	0	2	1	4	0	59	28	109	1	9.9	0	0	0
Ave Period 1 05-10-2023 12:15	3.61666	1.85	335.983	0	2	1	22.7166	0	59.5333	30.2333	240.15	3.32833	10.265	0	0	0
	8	7	345	0	2	1	35	0	63	31	332	6	10.3	0	0	0
	2	1	324	0	2	1	12	0	56	29	126	1.4	10.2	0	0	0



Environmental Report

Record Cnt 1440

04-10-2023

Start Date 4:16:00 PM

End Date 05-10-2023

4:15:00 PM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	13.1361	7.78125	407.980	.073152	28.6159	16.4326	15.7145	0	84.5263	25.8055	197.431	.880277	10.2803	0	0	0
Max	80	100	530	.47	92	47	47	0	100	31	352	6.4	10.5	0	0	0
Min	2	1	320	0	2	1	0	0	51	23	0	0	9.9	0	0	0
Ave Period 1 05-10-2023 01:15	7.98333	5	333.783	0	2	1	29.5166	0	57.8166	30.3333	238.75	3.825	10.2483	0	0	0
	28	17	345	0	2	1	38	0	60	31	318	6.4	10.3	0	0	0
	2	1	324	0	2	1	22	0	56	30	132	.8	9.9	0	0	0
Ave Period 1 05-10-2023 02:15	12.2333	9.71666	331.516	0	2	1	34.35	0	58.3166	30.2333	218.3	2.54	10.2333	0	0	0
	40	36	335	0	2	1	39	0	66	31	304	5.6	10.3	0	0	0
	2	1	320	0	2	1	29	0	54	29	56	.5	9.9	0	0	0
Ave Period 1 05-10-2023 03:15	46.6666	38.1833	335.583	.044833	2	1.45	35.6166	0	78.05	26.6166	189.416	2.95	10.1833	0	0	0
	80	68	344	.1	2	6	44	0	85	28	352	5.9	10.3	0	0	0
	3	1	324	0	2	1	30	0	67	26	2	.7	9.9	0	0	0
Ave Period 1 05-10-2023 04:15	25.4	12	336.75	.100833	10.65	13.5333	25.9	0	83.0666	25.2	218	1.88833	10.195	0	0	0
	45	41	344	.16	33	25	33	0	86	26	343	4.6	10.3	0	0	0
	8	3	332	.05	2	1	19	0	81	25	0	.1	9.9	0	0	0



Environmental Report

Record Cnt 1440

Start Date 13-10-2023
2:24:00 PM

Location: Pyi Nyaung Village

End Date 14-10-2023
2:23:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	20.7555	6.25277	312.214	.089659	12.8083	8.41180	14.7479	0	81.2347	24.5055	204.204	.056597	10.2845	0	0	0
Max	180	57	378	.96	60	32	81	0	100	32	359	2.1	10.5	0	0	0
Min	2	1	248	0	2	1	0	0	41	21	0	0	9.7	0	0	0
EPAS 919217	20.7555	6.25277	312.214	.089659	12.8083	8.41180	14.7479	0	81.2347	24.5055	204.204	.056597	10.2845	0	0	0
	180	57	378	.96	60	32	81	0	100	32	359	2.1	10.5	0	0	0
	2	1	248	0	2	1	0	0	41	21	0	0	9.7	0	0	0
Daily Fri, Oct 13, 2023	33.4826	11.3559	298.321	.113263	20.6041	11.9409	24.1736	0	84.0329	24.5277	231.359	.004513	10.3513	0	0	0
	180	57	360	.96	60	32	81	0	100	29	351	.5	10.5	0	0	0
	6	1	252	0	2	1	0	0	51	22	3	0	9.9	0	0	0
Ave Period 1 13-10-2023 03:23	38.3333	23.9833	261.416	.0425	2	1	20.8333	0	61.4166	27.1833	215.433	.036666	10.47	0	0	0
	56	57	271	.21	2	1	35	0	67	29	351	.5	10.5	0	0	0
	11	2	252	0	2	1	14	0	51	26	4	0	10.2	0	0	0
Ave Period 1 13-10-2023 04:23	20.65	8.18333	260.8	.102333	2	1.5	19.1	0	59.7333	27.5	115.533	0	10.4466	0	0	0
	37	16	263	.27	2	5	25	0	63	29	120	0	10.5	0	0	0
	10	2	252	0	2	1	11	0	53	27	100	0	10	0	0	0
Ave Period 1 13-10-2023 05:23	41.8833	13.7833	260.483	.206	2	1.18333	27.3833	0	63.8	26.9166	6.63333	0	10.4233	0	0	0
	99	21	264	.5	2	4	45	0	68	27	100	0	10.5	0	0	0
	17	1	253	.01	2	1	15	0	60	26	3	0	10	0	0	0
Ave Period 1 13-10-2023 06:23	68.5666	20.2	274.45	.3035	7.55	4.88333	34.9333	0	78.9	25.1666	3	0	10.3783	0	0	0
	180	51	303	.96	26	15	74	0	88	26	3	0	10.5	0	0	0
	31	8	255	0	2	1	22	0	69	24	3	0	10	0	0	0
Ave Period 1 13-10-2023 07:23	57.7666	21.1333	288.85	.044	21.6666	12.95	25.1833	0	90	24	288.85	.006666	10.3133	0	0	0
	99	54	304	.28	47	30	72	0	93	24	347	.2	10.5	0	0	0
	14	3	278	0	11	8	10	0	87	24	3	0	10	0	0	0
Ave Period 1 13-10-2023 08:23	36.3	7.65	308.533	.1815	35.6833	22.25	52.7	0	95.6	23.2	346	0	10.2733	0	0	0
	55	13	321	.3	42	28	81	0	97	24	346	0	10.5	0	0	0
	17	1	298	0	31	19	35	0	93	23	346	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

13-10-2023

Start Date

2:24:00 PM

End Date

14-10-2023

2:23:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	20.7555	6.25277	312.214	.089659	12.8083	8.41180	14.7479	0	81.2347	24.5055	204.204	.056597	10.2845	0	0	0
Max	180	57	378	.96	60	32	81	0	100	32	359	2.1	10.5	0	0	0
Min	2	1	248	0	2	1	0	0	41	21	0	0	9.7	0	0	0
Ave Period 1 13-10-2023 09:23	23.5166	5.5	326.9	.033	48.3666	25	32.2833	0	98.4333	23	346	0	10.3	0	0	0
	46	12	344	.25	58	30	57	0	100	23	346	0	10.3	0	0	0
	13	2	313	0	41	20	21	0	98	23	346	0	10.3	0	0	0
Ave Period 1 13-10-2023 10:23	17.4333	1.61666	343.233	.123	41.25	23.15	15.2333	0	99.2666	23	346	0	10.3216	0	0	0
	30	5	355	.19	60	32	36	0	100	23	346	0	10.5	0	0	0
	9	1	335	0	27	16	7	0	98	23	346	0	9.9	0	0	0
Ave Period 1 13-10-2023 11:23	11.3	4.36666	334.25	.027333	25.0333	15.4	3.38333	0	99.5666	22.3	346	0	10.285	0	0	0
	15	9	345	.11	32	20	9	0	100	23	346	0	10.5	0	0	0
	6	1	324	0	18	11	0	0	99	22	346	0	9.9	0	0	0
Ave Period 1 13-10-2023 11:59	9.47222	4.33333	341.611	.040277	20.4166	12.1944	1.72222	0	100	22	346	0	10.2694	0	0	0
	13	9	360	.18	23	16	4	0	100	22	346	0	10.5	0	0	0
	6	1	334	0	16	11	0	0	100	22	346	0	9.9	0	0	0
Daily Sat, Oct 14, 2023	12.2708	2.85069	321.476	.073923	7.61111	6.05902	8.46412	0	79.3692	24.4907	186.101	.091319	10.2400	0	0	0
	45	38	378	.48	21	17	37	0	100	32	359	2.1	10.5	0	0	0
	2	1	248	0	2	1	0	0	41	21	0	0	9.7	0	0	0
Ave Period 1 14-10-2023 12:23	17.5416	1.20833	346.375	.08375	15.5833	11.5833	2.29166	0	99.25	22	346	0	10.3	0	0	0
	27	3	355	.11	18	13	4	0	100	22	346	0	10.3	0	0	0
	9	1	340	.06	13	10	1	0	98	22	346	0	10.3	0	0	0
Ave Period 1 14-10-2023 01:23	17.0666	1.7	356.65	.103333	13.7333	11.5333	2.5	0	99.9	22	346	0	10.27	0	0	0
	30	5	365	.17	19	14	4	0	100	22	346	0	10.5	0	0	0
	5	1	344	.07	8	9	0	0	99	22	346	0	9.9	0	0	0
Ave Period 1 14-10-2023 02:23	11.65	2.48333	356.316	.083166	12.8	12.7833	1.33333	0	100	21.2666	346	0	10.26	0	0	0
	26	5	374	.15	18	17	4	0	100	22	346	0	10.3	0	0	0
	6	1	345	.05	7	6	0	0	100	21	346	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

13-10-2023

Start Date

2:24:00 PM

End Date 14-10-2023

2:23:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	20.7555	6.25277	312.214	.089659	12.8083	8.41180	14.7479	0	81.2347	24.5055	204.204	.056597	10.2845	0	0	0
Max	180	57	378	.96	60	32	81	0	100	32	359	2.1	10.5	0	0	0
Min	2	1	248	0	2	1	0	0	41	21	0	0	9.7	0	0	0
Ave Period 1 14-10-2023 03:23	13.6666	2.25	363.95	.037333	13.1666	11.65	.916666	0	100	21.7166	342.2	0	10.26	0	0	0
	28	6	375	.09	20	15	4	0	100	22	346	0	10.3	0	0	0
	8	1	354	.01	9	7	0	0	100	21	325	0	9.9	0	0	0
Ave Period 1 14-10-2023 04:23	19.3333	1.75	360.75	.08	11.65	7.7	2.55	0	98.9666	21.7666	94.7666	0	10.2583	0	0	0
	32	6	366	.16	17	12	9	0	100	22	357	0	10.3	0	0	0
	10	1	353	.03	7	4	0	0	98	21	3	0	9.9	0	0	0
Ave Period 1 14-10-2023 05:23	20.3833	3.33333	365.533	.196666	11.9333	7.46666	7.21666	0	99.25	21	2.1	0	10.2933	0	0	0
	35	7	376	.48	17	12	14	0	100	21	3	0	10.3	0	0	0
	10	1	354	.04	6	4	1	0	98	21	2	0	10.2	0	0	0
Ave Period 1 14-10-2023 06:23	11.0166	2.01666	364.133	.108166	9.16666	7.43333	3.9	0	97.7166	21	2	0	10.25	0	0	0
	17	5	378	.21	13	12	8	0	100	21	2	0	10.3	0	0	0
	6	1	354	0	4	4	0	0	95	21	2	0	9.9	0	0	0
Ave Period 1 14-10-2023 07:23	15.0333	4.15	362.433	.020666	11.7833	9.28333	9.76666	0	93.4833	21.7333	2	0	10.245	0	0	0
	40	9	373	.14	21	15	32	0	97	23	2	0	10.3	0	0	0
	2	1	348	0	5	6	0	0	85	21	2	0	9.9	0	0	0
Ave Period 1 14-10-2023 08:23	9.3	1.21666	325.233	.0795	7.13333	7.78333	8.35	0	76.3166	24.05	225.566	.015	10.2483	0	0	0
	26	4	355	.35	19	15	16	0	84	25	358	.3	10.3	0	0	0
	2	1	303	0	2	1	4	0	71	23	2	0	9.9	0	0	0
Ave Period 1 14-10-2023 09:23	7.1	1.83333	299.383	.0635	2	1.98333	6.95	0	69.6833	25.1833	192.083	.016666	10.255	0	0	0
	16	8	313	.19	2	6	10	0	72	26	341	.2	10.3	0	0	0
	2	1	283	0	2	1	4	0	66	25	171	0	9.9	0	0	0
Ave Period 1 14-10-2023 10:23	4.41666	1.11666	281.083	.055	2	1	7.98333	0	61.8333	26.8333	122.483	.083333	10.2433	0	0	0
	12	4	293	.25	2	1	16	0	68	28	352	.5	10.3	0	0	0
	2	1	268	0	2	1	4	0	54	25	0	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

13-10-2023

Start Date

2:24:00 PM

End Date

14-10-2023

2:23:00 PM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	20.7555	6.25277	312.214	.089659	12.8083	8.41180	14.7479	0	81.2347	24.5055	204.204	.056597	10.2845	0	0	0
Max	180	57	378	.96	60	32	81	0	100	32	359	2.1	10.5	0	0	0
Min	2	1	248	0	2	1	0	0	41	21	0	0	9.7	0	0	0
Ave Period 1 14-10-2023 11:23	2.5	1	265.266	.0935	2	1	9.8	0	50.75	29.1833	188.983	.341666	10.2133	0	0	0
	14	1	273	.28	2	1	15	0	55	30	318	1.3	10.3	0	0	0
	2	1	256	0	2	1	5	0	45	28	140	0	9.9	0	0	0
Ave Period 1 14-10-2023 12:23	7.23333	2.23333	268.083	.002333	2	1	13.15	0	48.2333	29.7166	179.35	.533333	10.1883	0	0	0
	29	8	283	.06	2	1	21	0	58	31	359	2.1	10.3	0	0	0
	2	1	256	0	2	1	4	0	41	28	2	0	9.9	0	0	0
Ave Period 1 14-10-2023 01:23	19.7833	11.8	262.966	.010333	2	1	19	0	51.9666	29.55	273.15	.236666	10.1783	0	0	0
	45	38	272	.06	2	1	24	0	60	32	359	1.2	10.3	0	0	0
	2	1	254	0	2	1	12	0	42	28	4	0	9.7	0	0	0
Ave Period 1 14-10-2023 02:23	11.2	3.68333	258.933	.0975	2	1	27.55	0	55.1166	28.8666	224.783	.088333	10.1733	0	0	0
	38	18	270	.41	2	1	37	0	62	31	357	.6	10.3	0	0	0
	2	1	248	0	2	1	19	0	46	27	43	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

11-10-2023

Start Date

2:06:00 PM

Location: Ku Pyin Village

End Date

12-10-2023

2:05:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	9.25416	3.31666	85.8402	.134562	6.31944	7.12708	.028562	91.5708	23.7854	222.997	.108611	10.3864	0	0	0	
Max	96	69	2162	.54	471	142	1.52	100	31	358	4.7	10.7	0	0	0	
Min	2	1	0	0	2	1	0	52	22	1	0	9.9	0	0	0	
EPAS 919217	9.25416	3.31666	85.8402	.134562	6.31944	7.12708	.028562	91.5708	23.7854	222.997	.108611	10.3864	0	0	0	
	96	69	2162	.54	471	142	1.52	100	31	358	4.7	10.7	0	0	0	
	2	1	0	0	2	1	0	52	22	1	0	9.9	0	0	0	
Daily	12.0488	5.43771	58.1060	.155740	12.4713	11.0269	.069242	94.6649	23.3249	218.629	.085690	10.4764	0	0	0	
Wed, Oct 11, 2023	96	69	661	.44	471	142	1.52	100	30	358	4.7	10.7	0	0	0	
	2	1	0	.01	2	1	0	58	22	1	0	10	0	0	0	
Ave Period 1 11-10-2023 03:05	14.2333	5.11666	327.85	.0455	2.08333	2.5	18.5666	0	63.65	28.5666	79.1833	.098333	10.5566	0	0	0
	32	12	335	.09	7	12	30	0	71	30	349	.6	10.7	0	0	0
	2	1	322	.01	2	1	10	0	58	28	1	0	10.2	0	0	0
Ave Period 1 11-10-2023 04:05	48.6166	28.1333	247.4	.136333	104.783	45.6	43	.491833	83.5333	25.3166	191.083	.665	10.48	0	0	0
	96	69	661	.29	471	142	86	1.52	100	28	270	4.7	10.6	0	0	0
	7	1	0	.04	2	1	15	0	67	22	4	0	10.2	0	0	0
Ave Period 1 11-10-2023 05:05	15.9	8.91666	0	.303666	2	1.18333	27.9833	.083666	100	22.1	121.366	.063333	10.475	0	0	0
	32	20	0	.39	2	6	55	.48	100	23	358	1	10.6	0	0	0
	2	1	0	.25	2	1	13	0	100	22	2	0	10.2	0	0	0
Ave Period 1 11-10-2023 06:05	2.03333	1.1	0	.264833	2.8	3.05	10.9833	.004166	100	22.7333	298.966	.021666	10.4683	0	0	0
	4	2	0	.33	10	10	36	.13	100	23	344	.3	10.6	0	0	0
	2	1	0	.21	2	1	5	0	100	22	241	0	10	0	0	0
Ave Period 1 11-10-2023 07:05	3.16666	1.05	0	.257	2	4.68333	9.63333	.012833	100	22.4666	241	0	10.475	0	0	0
	10	3	0	.44	2	19	15	.14	100	23	241	0	10.6	0	0	0
	2	1	0	.11	2	1	6	0	100	22	241	0	10.2	0	0	0
Ave Period 1 11-10-2023 08:05	6.36666	1.16666	0	.096	2	12.0833	5.36666	.006333	100	22.0833	241	0	10.465	0	0	0
	11	3	0	.16	2	16	9	.13	100	23	241	0	10.6	0	0	0
	2	1	0	.05	2	8	2	0	100	22	241	0	10	0	0	0



Environmental Report

Record Cnt 1440

11-10-2023

Start Date

2:06:00 PM

End Date 12-10-2023

2:05:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	9.25416	3.31666	85.8402	.134562	6.31944	7.12708	7.85486	.028562	91.5708	23.7854	222.997	.108611	10.3864	0	0	0
Max	96	69	2162	.54	471	142	86	1.52	100	31	358	4.7	10.7	0	0	0
Min	2	1	0	0	2	1	0	0	52	22	1	0	9.9	0	0	0
Ave Period 1 11-10-2023 09:05	5.95	1.58333	0	.0835	2	13.2	4.46666	.052833	100	22.7	241	0	10.4916	0	0	0
	12	5	0	.14	2	18	7	.48	100	23	241	0	10.5	0	0	0
	2	1	0	.05	2	8	2	0	100	22	241	0	10	0	0	0
Ave Period 1 11-10-2023 10:05	6.33333	2.13333	0	.1005	2	10.1	2.05	.033833	100	22.8333	249.233	0	10.4583	0	0	0
	12	6	0	.16	2	12	5	.56	100	23	264	0	10.5	0	0	0
	3	1	0	.07	2	7	0	0	100	22	241	0	10	0	0	0
Ave Period 1 11-10-2023 11:05	7.63333	2.16666	0	.132333	2	9.51666	.1	0	100	22.3166	264	0	10.4533	0	0	0
	16	5	0	.18	2	14	1	0	100	23	264	0	10.5	0	0	0
	2	1	0	.07	2	6	0	0	100	22	264	0	10	0	0	0
Ave Period 1 11-10-2023 11:59	10.0555	2.74074	0	.135740	2	8.05555	0	0	100	22	264	0	10.4370	0	0	0
	14	8	0	.15	2	11	0	0	100	22	264	0	10.5	0	0	0
	5	1	0	.13	2	5	0	0	100	22	264	0	10	0	0	0
Daily Thu, Oct 12, 2023	7.29196	1.82742	105.313	.119692	2	4.38888	4.70685	0	89.3983	24.1087	226.063	.124704	10.3232	0	0	0
	47	18	2162	.54	2	10	22	0	100	31	351	3.1	10.5	0	0	0
	2	1	0	0	2	1	0	0	52	22	6	0	9.9	0	0	0
Ave Period 1 12-10-2023 12:05	11.5	2	0	.13	2	8.83333	0	0	100	22	264	0	10.4666	0	0	0
	13	3	0	.13	2	10	0	0	100	22	264	0	10.5	0	0	0
	9	1	0	.13	2	8	0	0	100	22	264	0	10.3	0	0	0
Ave Period 1 12-10-2023 01:05	7.26666	3.01666	0	.126833	2	7.35	0	0	100	22	264	0	10.44	0	0	0
	12	8	0	.13	2	10	0	0	100	22	264	0	10.5	0	0	0
	2	1	0	.12	2	4	0	0	100	22	264	0	10	0	0	0
Ave Period 1 12-10-2023 02:05	4.23333	1.15	0	.123166	2	6.43333	0	0	100	22	264	0	10.4133	0	0	0
	15	4	0	.13	2	10	0	0	100	22	264	0	10.5	0	0	0
	2	1	0	.12	2	2	0	0	100	22	264	0	10	0	0	0



Environmental Report

Record Cnt 1440

11-10-2023

Start Date 2:06:00 PM

End Date 12-10-2023
2:05:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	9.25416	3.31666	85.8402	.134562	6.31944	7.12708	.028562	91.5708	23.7854	222.997	.108611	10.3864	0	0	0
Max	96	69	2162	.54	471	142	1.52	100	31	358	4.7	10.7	0	0	0
Min	2	1	0	0	2	1	0	52	22	1	0	9.9	0	0	0
Ave Period 1 12-10-2023 03:05	8.05	1.7	0	.128666	2	4.55	0	100	22	264	0	10.4	0	0	0
	14	6	0	.13	2	9	0	100	22	264	0	10.5	0	0	0
	3	1	0	.12	2	2	0	100	22	264	0	10	0	0	0
Ave Period 1 12-10-2023 04:05	4.23333	1.45	0	.127833	2	5.68333	0	100	22	264	0	10.355	0	0	0
	9	4	0	.13	2	9	0	100	22	264	0	10.5	0	0	0
	2	1	0	.12	2	3	0	100	22	264	0	9.9	0	0	0
Ave Period 1 12-10-2023 05:05	6.65	2.23333	0	.173833	2	5.65	.183333	100	22	264	0	10.3666	0	0	0
	17	5	0	.34	2	10	7	100	22	264	0	10.5	0	0	0
	2	1	0	.12	2	2	0	100	22	264	0	10.3	0	0	0
Ave Period 1 12-10-2023 06:05	10.2666	2.13333	0	.159833	2	4.88333	.8	100	22	264	0	10.3066	0	0	0
	17	5	0	.28	2	9	4	100	22	264	0	10.5	0	0	0
	4	1	0	.11	2	1	0	100	22	264	0	9.9	0	0	0
Ave Period 1 12-10-2023 07:05	16.3833	1.5	0	.192	2	5.18333	6.65	100	22.6666	264	0	10.3	0	0	0
	41	3	0	.54	2	8	21	100	23	264	0	10.5	0	0	0
	2	1	0	0	2	3	0	100	22	264	0	9.9	0	0	0
Ave Period 1 12-10-2023 08:05	6.91666	1.16666	0	.074166	2	5.61666	3.15	100	23.35	264	0	10.28	0	0	0
	15	3	0	.16	2	8	6	100	24	264	0	10.5	0	0	0
	2	1	0	0	2	2	0	100	23	264	0	9.9	0	0	0
Ave Period 1 12-10-2023 09:05	7.38333	1	0	.151833	2	4.73333	6.76666	100	24	264	0	10.2833	0	0	0
	13	1	0	.31	2	9	10	100	24	264	0	10.5	0	0	0
	2	1	0	.08	2	1	5	100	24	264	0	9.9	0	0	0
Ave Period 1 12-10-2023 10:05	6.18333	1.01666	360.333	.049833	2	5.61666	3.23333	92.7833	24.6	161.433	.265	10.28	0	0	0
	14	2	2162	.16	2	9	7	100	26	333	1.7	10.5	0	0	0
	2	1	0	0	2	2	0	77	23	6	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

11-10-2023

Start Date

2:06:00 PM

End Date

12-10-2023

2:05:00 PM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	9.25416	3.31666	85.8402	.134562	6.31944	7.12708	7.85486	.028562	91.5708	23.7854	222.997	.108611	10.3864	0	0	0
Max	96	69	2162	.54	471	142	86	1.52	100	31	358	4.7	10.7	0	0	0
Min	2	1	0	0	2	1	0	0	52	22	1	0	9.9	0	0	0
Ave Period 1 12-10-2023 11:05	2.9	1.61666	473.266	.1475	2	2.3	4.51666	0	74.8	25.4833	185.133	.073333	10.2716	0	0	0
	8	7	9731	.17	2	10	10	0	82	27	332	.7	10.5	0	0	0
	2	1	0	.13	2	1	1	0	68	25	40	0	9.9	0	0	0
Ave Period 1 12-10-2023 12:05	2	1	141.916	.119333	2	1	7.63333	0	66.0666	27.0333	144.566	.525	10.2966	0	0	0
	2	1	322	.14	2	1	14	0	72	29	312	3.1	10.5	0	0	0
	2	1	6	.1	2	1	3	0	59	26	16	0	10	0	0	0
Ave Period 1 12-10-2023 01:05	2.6	1.1	254.683	.079	2	1	16	0	59.6	29.3666	135.933	.531666	10.2583	0	0	0
	6	4	269	.16	2	1	19	0	69	31	351	1.8	10.3	0	0	0
	2	1	243	.03	2	1	11	0	52	28	27	0	9.9	0	0	0
Ave Period 1 12-10-2023 02:05	16.6	5.48333	254.716	.020833	2	1	17.4333	0	57.2666	29.2333	158.033	.363333	10.26	0	0	0
	47	18	262	.06	2	1	22	0	64	31	333	1.7	10.3	0	0	0
	2	1	251	0	2	1	11	0	52	27	36	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

Start Date 06-11-2023
4:46:00 PM

Location: Plant Site

End Date 07-11-2023
4:45:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	20.3534	5.37361	347.848	.092395	28.9381	17.0604	9.84652	0	27.7798	24.4722	240.390	.373194	10.2882	0	0	0
Max	84	53	473	.41	92	46	36	0	86	32	359	4.5	10.5	0	0	0
Min	2	1	251	0	2	1	0	0	0	20	4	0	9.9	0	0	0
EPAS 919217	20.3534	5.37361	347.848	.092395	28.9381	17.0604	9.84652	0	27.7798	24.4722	240.390	.373194	10.2882	0	0	0
	84	53	473	.41	92	46	36	0	86	32	359	4.5	10.5	0	0	0
	2	1	251	0	2	1	0	0	0	20	4	0	9.9	0	0	0
Daily Mon, Nov 6, 2023	28.7096	8.02304	342.230	.154723	47.9723	27.6129	14.1059	0	25.3894	23.4009	284.891	.147235	10.3900	0	0	0
	84	53	446	.41	92	46	36	0	41	28	354	2.1	10.5	0	0	0
	7	1	252	.07	2	1	0	0	0	21	274	0	9.9	0	0	0
Ave Period 1 06-11-2023 05:45 05:45	54.2333	29.4666	266.966	.202	11.5166	12.2833	28.5833	0	2.03333	27	298.783	.623333	10.4333	0	0	0
	84	53	280	.41	40	24	36	0	9	28	354	2.1	10.5	0	0	0
	14	3	252	.07	2	1	25	0	0	26	282	0	10	0	0	0
Ave Period 1 06-11-2023 06:45 06:45	35.1	13.75	295.25	.231166	49.5333	29.3166	27.65	0	14.6166	25.1333	286.133	.441666	10.37	0	0	0
	51	38	322	.37	77	42	33	0	18	26	310	2.1	10.5	0	0	0
	15	1	279	.1	35	21	16	0	9	25	274	0	10	0	0	0
Ave Period 1 06-11-2023 07:45 07:45	32.7	6.75	330.433	.166666	66.65	35.6833	19.6333	0	26.2	23.8	282	0	10.3616	0	0	0
	53	12	352	.29	92	46	28	0	31	25	282	0	10.5	0	0	0
	15	1	313	.13	56	31	16	0	18	23	282	0	9.9	0	0	0
Ave Period 1 06-11-2023 08:45 08:45	21.7833	4.61666	339.216	.132333	67.3833	35.6666	11.95	0	28.4833	23	282	0	10.3766	0	0	0
	38	14	365	.2	79	41	18	0	31	23	282	0	10.5	0	0	0
	7	1	313	.09	54	31	9	0	27	23	282	0	10	0	0	0
Ave Period 1 06-11-2023 09:45 09:45	23.1	1.01666	373.716	.136333	49.5833	28.7333	7.5	0	32.3	22.3	282	0	10.4316	0	0	0
	35	2	392	.21	67	39	12	0	35	23	282	0	10.5	0	0	0
	15	1	345	.11	36	22	4	0	28	22	282	0	10	0	0	0
Ave Period 1 06-11-2023 10:45 10:45	19.6333	1.08333	382.683	.104	48.1833	27.3166	3.95	0	34.3	22	282	0	10.43	0	0	0
	31	2	406	.13	61	32	7	0	37	22	282	0	10.5	0	0	0
	12	1	364	.07	40	24	1	0	31	22	282	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

Start Date 06-11-2023
4:46:00 PM

End Date 07-11-2023
4:45:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	20.3534	5.37361	347.848	.092395	28.9381	17.0604	0	27.7798	24.4722	240.390	.373194	10.2882	0	0	0
Max	84	53	473	.41	92	46	0	86	32	359	4.5	10.5	0	0	0
Min	2	1	251	0	2	1	0	0	20	4	0	9.9	0	0	0
Ave Period 1 06-11-2023 11:45	17.55	1.06666	389.183	.115666	44.1666	25.05	0	36.8333	21.1333	282	0	10.34	0	0	0
	32	2	406	.15	54	29	0	41	22	282	0	10.5	0	0	0
	9	1	376	.08	32	19	0	35	21	282	0	9.9	0	0	0
Ave Period 1 06-11-2023 11:59	15.2857	1.21428	420.071	.132857	42.7857	24.3571	0	38.0714	21	282	0	10.3357	0	0	0
	18	3	446	.19	47	28	0	41	21	282	0	10.5	0	0	0
	13	1	387	.11	38	22	0	36	21	282	0	10	0	0	0
Daily Tue, Nov 7, 2023	16.7485	4.23061	350.272	.065506	20.7266	12.5079	0	28.8111	24.9343	221.192	.470675	10.2443	0	0	0
	64	52	473	.23	56	31	0	86	32	359	4.5	10.5	0	0	0
	2	1	251	0	2	1	0	0	20	4	0	9.9	0	0	0
Ave Period 1 07-11-2023 12:45	15.8043	1.30434	412.065	.101086	40.1304	22.8260	0	40.8478	21	282	0	10.3	0	0	0
	34	3	440	.14	44	26	0	45	21	282	0	10.5	0	0	0
	9	1	384	.07	34	19	0	36	21	282	0	9.9	0	0	0
Ave Period 1 07-11-2023 01:45	23.0666	1.78333	419.933	.0985	35.4166	20.0833	0	43.5166	21	282	0	10.2983	0	0	0
	34	3	451	.13	46	26	0	46	21	282	0	10.5	0	0	0
	11	1	375	.07	2	1	0	41	21	282	0	9.9	0	0	0
Ave Period 1 07-11-2023 02:45	22.6833	2.73333	421.183	.116	35.1333	20.35	0	47.1166	20.5166	282	0	10.28	0	0	0
	35	11	439	.13	43	25	0	55	21	282	0	10.5	0	0	0
	13	1	385	.09	7	8	0	42	20	282	0	9.9	0	0	0
Ave Period 1 07-11-2023 03:45	23.05	7.36666	439.566	.109666	38.4166	22.9	0	58.4166	20	282	0	10.2633	0	0	0
	39	13	458	.13	44	26	0	62	20	282	0	10.3	0	0	0
	11	1	407	.09	32	20	0	55	20	282	0	9.9	0	0	0
Ave Period 1 07-11-2023 04:45	27.5666	5	445.8	.14	36.0333	20.5666	0	58.5	20	282	0	10.26	0	0	0
	40	12	467	.23	42	24	0	64	20	282	0	10.3	0	0	0
	8	1	418	.08	30	17	0	53	20	282	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

06-11-2023

Start Date 4:46:00 PM

End Date 07-11-2023

4:45:00 PM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	20.3534	5.37361	347.848	.092395	28.9381	17.0604	9.84652	0	27.7798	24.4722	240.390	.373194	10.2882	0	0	0
Max	84	53	473	.41	92	46	36	0	86	32	359	4.5	10.5	0	0	0
Min	2	1	251	0	2	1	0	0	0	20	4	0	9.9	0	0	0
Ave Period 1 07-11-2023 05:45	25.3333	4.21666	449.533	.0965	35.0833	20.7666	1.96666	0	66.8166	20	282	0	10.2833	0	0	0
...	35	10	473	.16	41	24	11	0	73	20	282	0	10.3	0	0	0
...	14	1	393	.07	27	18	0	0	58	20	282	0	9.9	0	0	0
Ave Period 1 07-11-2023 06:45	23.8666	1.46666	421.55	.087666	42.55	26.0666	5.55	0	74.6166	20	282	0	10.2666	0	0	0
...	32	4	438	.15	48	31	12	0	78	20	282	0	10.3	0	0	0
...	12	1	387	.04	36	21	0	0	68	20	282	0	9.9	0	0	0
Ave Period 1 07-11-2023 07:45	15.9166	1.11666	377.433	.1345	44.9	26.8666	9.95	0	71.95	20.7166	279.416	0	10.2533	0	0	0
...	29	4	405	.16	56	30	19	0	86	21	282	0	10.3	0	0	0
...	6	1	356	.11	36	23	4	0	50	20	274	0	9.9	0	0	0
Ave Period 1 07-11-2023 08:45	5.73333	1.75	347.1	.092666	31.9666	22.55	3.01666	0	30.8166	22.7166	216.45	.01	10.25	0	0	0
...	12	6	365	.13	46	27	6	0	55	25	275	.3	10.3	0	0	0
...	2	1	334	.05	5	15	1	0	0	21	15	0	9.9	0	0	0
Ave Period 1 07-11-2023 09:45	2.46666	1.06666	318.5	.053333	3.25	5.06666	.8	0	0	26.7	90.5	.195	10.1566	0	0	0
...	13	5	335	.08	19	15	3	0	0	28	352	1.3	10.3	0	0	0
...	2	1	301	.03	2	1	0	0	0	25	11	0	9.9	0	0	0
Ave Period 1 07-11-2023 10:45	6.18333	3.25	293.75	.005333	2	1	1.45	0	0	29	167.116	.378333	10.23	0	0	0
...	15	12	319	.04	2	1	7	0	0	31	359	2.2	10.3	0	0	0
...	2	1	273	0	2	1	0	0	0	27	4	0	10.2	0	0	0
Ave Period 1 07-11-2023 11:45	7.36666	1.03333	290.316	.020333	2	1	10.1666	0	0	29.8	155.7	1.07333	10.2016	0	0	0
...	14	2	302	.05	2	1	19	0	0	30	339	3	10.3	0	0	0
...	2	1	283	0	2	1	0	0	0	29	9	.1	9.9	0	0	0
Ave Period 1 07-11-2023 12:45	17.8833	4.33333	273.916	.014	2	1	16.85	0	0	30.1166	136.85	1.80166	10.2083	0	0	0
...	30	9	289	.06	2	1	25	0	0	31	287	3.5	10.3	0	0	0
...	9	1	263	0	2	1	6	0	0	30	72	.2	9.9	0	0	0



Environmental Report

Record Cnt 1440

06-11-2023

Start Date

4:46:00 PM

End Date

07-11-2023

4:45:00 PM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	20.3534	5.37361	347.848	.092395	28.9381	17.0604	9.84652	0	27.7798	24.4722	240.390	.373194	10.2882	0	0	0
Max	84	53	473	.41	92	46	36	0	86	32	359	4.5	10.5	0	0	0
Min	2	1	251	0	2	1	0	0	0	20	4	0	9.9	0	0	0
Ave Period 1 07-11-2023 01:45	21.4	8.03333	269.183	.023	2	1	20.8333	0	0	30.2333	143.95	1.86166	10.2266	0	0	0
	37	13	273	.05	2	1	25	0	0	31	268	4.5	10.3	0	0	0
	7	1	262	0	2	1	10	0	0	30	91	0	9.9	0	0	0
Ave Period 1 07-11-2023 02:45	3.48333	1.08333	264.066	.001	2	1	15.4333	0	0	30.9	182.083	1.51833	10.23	0	0	0
	8	3	273	.01	2	1	23	0	0	32	256	3.9	10.3	0	0	0
	2	1	255	0	2	1	8	0	0	30	107	.1	9.9	0	0	0
Ave Period 1 07-11-2023 03:45	4.7	2.15	266.516	.003666	2	1	15.2	0	0	30.5666	204.75	.903333	10.2316	0	0	0
	19	9	277	.04	2	1	31	0	0	32	357	2.9	10.3	0	0	0
	2	1	262	0	2	1	4	0	0	30	94	.1	9.9	0	0	0
Ave Period 1 07-11-2023 04:45	38	23.55	258.633	.024666	2	1	23	0	0	29.7	223.65	.15	10.2266	0	0	0
	64	52	267	.15	2	1	33	0	0	31	282	1.3	10.3	0	0	0
	15	1	251	0	2	1	5	0	0	27	169	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

Start Date 22-11-2023
3:24:00 PM

Location: Pyi Nyaung Village

End Date 23-11-2023
3:23:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	25.0972	4.97152	329.895	.108895	23.6451	15.1562	9.27916	0	80.3555	22.4701	266.171	.319513	10.3026	0	0	0
Max	227	43	405	.64	63	37	101	0	100	30	358	4.2	10.6	0	0	0
Min	2	1	272	0	2	1	0	0	44	18	1	0	9.7	0	0	0
EPAS 919217	25.0972	4.97152	329.895	.108895	23.6451	15.1562	9.27916	0	80.3555	22.4701	266.171	.319513	10.3026	0	0	0
	227	43	405	.64	63	37	101	0	100	30	358	4.2	10.6	0	0	0
	2	1	272	0	2	1	0	0	44	18	1	0	9.7	0	0	0
Daily	40.8391	6.44186	323.226	.134224	28.3798	18.9031	20.2945	0	84.2693	22.2868	333.424	.022674	10.4436	0	0	0
Wed, Nov 22,	227	43	382	.64	63	37	101	0	99	30	358	1.2	10.6	0	0	0
	2	1	272	0	2	1	0	0	48	19	1	0	9.9	0	0	0
Ave Period 1 22-11-2023 04:23	33.55	17.4166	281.45	.068	2	1	18.55	0	56.2333	27.8	322.516	.171666	10.4783	0	0	0
	66	43	293	.14	2	1	25	0	61	30	357	1.2	10.6	0	0	0
	2	1	273	0	2	1	9	0	48	27	1	0	10.2	0	0	0
Ave Period 1 22-11-2023 05:23	43.1333	13.9666	285.1	.158666	2.46666	10.05	23.4833	0	66.5166	25.4833	241.533	.023333	10.465	0	0	0
	65	21	295	.32	10	17	31	0	72	27	358	.3	10.6	0	0	0
	10	3	272	.01	2	1	13	0	57	24	7	0	10	0	0	0
Ave Period 1 22-11-2023 06:23	50.25	10.3	297.533	.199	21.8	21.9333	23.3666	0	75.75	23.4666	349	0	10.3983	0	0	0
	137	21	314	.54	63	37	38	0	83	24	349	0	10.5	0	0	0
	18	1	286	0	6	14	9	0	72	23	349	0	10	0	0	0
Ave Period 1 22-11-2023 07:23	82.7333	5.31666	322.116	.225166	40.85	25.7	38.9166	0	86.2333	22.0166	349	0	10.48	0	0	0
	227	17	332	.64	61	37	101	0	88	23	349	0	10.6	0	0	0
	18	1	313	0	22	13	16	0	83	22	349	0	10	0	0	0
Ave Period 1 22-11-2023 08:23	21	1	322.166	.010333	39.7	23.75	11.25	0	90.8833	21.1	349	0	10.4866	0	0	0
	56	1	332	.1	56	30	29	0	93	22	349	0	10.5	0	0	0
	6	1	314	0	23	16	4	0	88	21	349	0	10	0	0	0
Ave Period 1 22-11-2023 09:23	30.3333	1.23333	338.35	.178	41.3666	24.1833	26.1833	0	95	20.5	349	0	10.4533	0	0	0
	56	3	354	.47	54	32	50	0	97	21	349	0	10.5	0	0	0
	15	1	324	0	35	18	9	0	93	20	349	0	10	0	0	0



Environmental Report

Record Cnt 1440

22-11-2023

Start Date

3:24:00 PM

End Date 23-11-2023

3:23:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	25.0972	4.97152	329.895	.108895	23.6451	15.1562	9.27916	0	80.3555	22.4701	266.171	.319513	10.3026	0	0	0
Max	227	43	405	.64	63	37	101	0	100	30	358	4.2	10.6	0	0	0
Min	2	1	272	0	2	1	0	0	44	18	1	0	9.7	0	0	0
Ave Period 1 22-11-2023 10:23	44.1166	2.15	355.483	.161	37.9333	22.4166	23.9666	0	97.5	20	349	0	10.44	0	0	0
	67	8	370	.32	48	28	40	0	99	20	349	0	10.5	0	0	0
	18	1	337	0	32	18	6	0	96	20	349	0	10	0	0	0
Ave Period 1 22-11-2023 11:23	31.7666	1.75	354.55	.078	38.1333	21.9666	7.1	0	97.9666	19.9	349	0	10.4083	0	0	0
	69	4	366	.26	42	26	18	0	99	20	349	0	10.5	0	0	0
	9	1	346	0	34	19	0	0	97	19	349	0	9.9	0	0	0
Ave Period 1 22-11-2023 11:59	23.8888	3.77777	371.666	.126944	33.0277	19.2777	2.86111	0	97.7222	19	349	0	10.3416	0	0	0
	52	8	382	.34	38	24	13	0	98	19	349	0	10.5	0	0	0
	14	1	354	.05	29	16	0	0	97	19	349	0	9.9	0	0	0
Daily Thu, Nov 23, 2023	16.3062	4.15043	333.619	.094751	21.0010	13.0638	3.12770	0	78.1699	22.5725	228.614	.485281	10.2239	0	0	0
	58	43	405	.6	44	29	40	0	100	30	358	4.2	10.5	0	0	0
	2	1	273	0	2	1	0	0	44	18	1	0	9.7	0	0	0
Ave Period 1 23-11-2023 12:23	26.0416	2.5	375.75	.116666	32.5	19.625	2.29166	0	98.7083	19	349	0	10.3041	0	0	0
	37	7	376	.21	36	24	7	0	100	19	349	0	10.5	0	0	0
	11	1	375	.08	31	17	0	0	98	19	349	0	9.9	0	0	0
Ave Period 1 23-11-2023 01:23	31.35	3.8	384.483	.129333	31.8833	18.7	1.86666	0	100	19	349	0	10.285	0	0	0
	46	9	396	.28	38	24	8	0	100	19	349	0	10.5	0	0	0
	12	1	375	.05	27	14	0	0	100	19	349	0	9.9	0	0	0
Ave Period 1 23-11-2023 02:23	24.9166	1.1	382.55	.0345	37.4666	22.0666	1.6	0	99.5666	19	349	0	10.2833	0	0	0
	50	3	405	.15	43	25	14	0	100	19	349	0	10.5	0	0	0
	10	1	354	0	30	18	0	0	98	19	349	0	9.9	0	0	0
Ave Period 1 23-11-2023 03:23	17.9833	1	356.633	.168666	34.8166	21.05	.15	0	98.6166	19	348.616	0	10.2966	0	0	0
	36	1	365	.28	44	29	3	0	100	19	349	0	10.5	0	0	0
	10	1	345	.11	26	17	0	0	97	19	348	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

22-11-2023

Start Date

3:24:00 PM

End Date 23-11-2023

3:23:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	25.0972	4.97152	329.895	.108895	23.6451	15.1562	9.27916	0	80.3555	22.4701	266.171	.319513	10.3026	0	0	0
Max	227	43	405	.64	63	37	101	0	100	30	358	4.2	10.6	0	0	0
Min	2	1	272	0	2	1	0	0	44	18	1	0	9.7	0	0	0
Ave Period 1 23-11-2023 04:23	19.1	1.05	352.616	.150666	35.8	23.6333	0	0	100	19	349	0	10.2666	0	0	0
	30	2	358	.17	40	28	0	0	100	19	349	0	10.5	0	0	0
	11	1	344	.11	32	19	0	0	100	19	349	0	9.9	0	0	0
Ave Period 1 23-11-2023 05:23	24.65	2.43333	356.533	.165	36.8666	21.3833	.816666	0	100	18.6666	308.883	.001666	10.2566	0	0	0
	41	4	374	.34	44	26	11	0	100	19	349	.1	10.3	0	0	0
	15	1	345	.1	31	18	0	0	100	18	177	0	9.9	0	0	0
Ave Period 1 23-11-2023 06:23	16.85	3.81666	367.833	.163333	30.0666	16.25	2.03333	0	99.5166	18	171.6	.001666	10.2483	0	0	0
	49	7	376	.6	38	21	40	0	100	18	177	.1	10.3	0	0	0
	8	1	360	.1	22	12	0	0	97	18	156	0	9.9	0	0	0
Ave Period 1 23-11-2023 07:23	14	4.43333	374.1	.129333	25.8166	15.8666	3.95	0	96.2166	18.0166	156	.003333	10.225	0	0	0
	27	8	376	.31	32	21	21	0	99	19	156	.1	10.3	0	0	0
	6	1	365	0	20	11	0	0	93	18	156	0	9.9	0	0	0
Ave Period 1 23-11-2023 08:23	11.1666	4.55	357.733	.049166	27.2166	17.0833	1.63333	0	86.4833	19.45	153.683	.11	10.2183	0	0	0
	17	7	376	.23	35	23	22	0	92	20	194	1	10.3	0	0	0
	5	1	336	0	19	10	0	0	81	18	94	0	9.7	0	0	0
Ave Period 1 23-11-2023 09:23	10.95	1.4	330.883	.207333	27.4166	17.5166	5.11666	0	75.3666	22.1833	123.783	.16	10.2083	0	0	0
	17	5	345	.39	34	24	21	0	81	24	180	.5	10.3	0	0	0
	5	1	314	.1	20	13	0	0	69	21	83	0	9.9	0	0	0
Ave Period 1 23-11-2023 10:23	4.18333	1	306.15	.143	13.0666	14.7833	2.15	0	60.5333	25.7166	138.2	.335	10.1983	0	0	0
	15	1	324	.37	34	23	6	0	68	27	354	1.5	10.3	0	0	0
	2	1	293	0	2	1	0	0	53	24	5	0	9.7	0	0	0
Ave Period 1 23-11-2023 11:23	2.43333	1.06666	286.066	.012833	2	1	0	0	49.1166	28.1666	226.983	.323333	10.1866	0	0	0
	11	4	302	.13	2	1	0	0	54	29	358	.9	10.3	0	0	0
	2	1	274	0	2	1	0	0	44	27	2	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

22-11-2023

Start Date

3:24:00 PM

End Date

23-11-2023

3:23:00 PM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	25.0972	4.97152	329.895	.108895	23.6451	15.1562	9.27916	0	80.3555	22.4701	266.171	.319513	10.3026	0	0	0
Max	227	43	405	.64	63	37	101	0	100	30	358	4.2	10.6	0	0	0
Min	2	1	272	0	2	1	0	0	44	18	1	0	9.7	0	0	0
Ave Period 1 23-11-2023 12:23	3.45	1.66666	284.283	.011166	2	1	.15	0	46.65	29.0333	184.75	.775	10.1566	0	0	0
	11	7	293	.13	2	1	5	0	49	30	357	2.5	10.2	0	0	0
	2	1	278	0	2	1	0	0	44	29	1	0	9.7	0	0	0
Ave Period 1 23-11-2023 01:23:00	6.28333	2.16666	283.85	.004833	2	1	4.01666	0	50.0833	28.7166	178.116	1.60666	10.165	0	0	0
	13	7	292	.16	2	1	12	0	52	29	337	3.9	10.3	0	0	0
	2	1	282	0	2	1	0	0	48	28	5	.3	9.7	0	0	0
Ave Period 1 23-11-2023 02:23	15.3666	7.81666	283.883	.0085	2	1	11.2833	0	51.2166	28.35	175.9	2.22	10.16	0	0	0
	35	20	293	.11	2	1	17	0	53	29	214	4.2	10.2	0	0	0
	8	2	274	0	2	1	7	0	49	27	140	.3	9.7	0	0	0
Ave Period 1 23-11-2023 03:23	38.0166	25.6166	279.833	.034833	2	1	12.4833	0	50.9666	27.7166	167.55	1.93666	10.1716	0	0	0
	58	43	288	.1	2	1	18	0	54	28	229	3.7	10.3	0	0	0
	9	4	273	0	2	1	8	0	50	27	133	.5	9.7	0	0	0



Environmental Report

Record Cnt 1440

13-11-2023

Start Date

3:11:00 PM

Location: Ku Pyin Village

End Date

14-11-2023

3:10:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	24.6513	4.62638	328.629	.108090	40.7361	22.8430	13.5138	0	100	23.6826	152.055	.074722	10.3616	0	0	0
Max	88	52	407	1.1	97	49	206	0	100	32	358	2.6	10.6	0	0	0
Min	2	1	255	0	2	1	0	0	100	20	0	0	9.9	0	0	0
EPAS 919217	24.6513	4.62638	328.629	.108090	40.7361	22.8430	13.5138	0	100	23.6826	152.055	.074722	10.3616	0	0	0
	88	52	407	1.1	97	49	206	0	100	32	358	2.6	10.6	0	0	0
	2	1	255	0	2	1	0	0	100	20	0	0	9.9	0	0	0
Daily	32.5066	7.32703	324.657	.138128	56.2514	32.3232	19.4215	0	100	22.9489	135.024	.013043	10.4570	0	0	0
Mon, Nov 13, 2023	84	52	406	.34	97	49	58	0	100	29	358	.7	10.6	0	0	0
	10	1	255	0	2	1	0	0	100	20	0	0	10	0	0	0
Ave Period 1 13-11-2023 04:10	51.05	22.4833	265.433	.141166	5.98333	13.95	31.8333	0	100	27.65	230.583	.115	10.4716	0	0	0
	84	52	273	.27	27	27	39	0	100	29	358	.7	10.6	0	0	0
	11	1	258	.1	2	1	27	0	100	27	0	0	10.2	0	0	0
Ave Period 1 13-11-2023 05:10	47.2333	12.55	264.766	.137666	37.65	30.5833	30.3	0	100	26.15	216.816	0	10.4666	0	0	0
	70	21	281	.22	63	40	39	0	100	27	357	0	10.5	0	0	0
	16	1	255	.1	4	18	21	0	100	25	20	0	10	0	0	0
Ave Period 1 13-11-2023 06:10	39.3166	12.3	288.433	.165333	68.55	37.8666	25.4	0	100	24	109	0	10.4433	0	0	0
	51	20	304	.19	94	46	30	0	100	25	109	0	10.5	0	0	0
	17	3	272	.14	45	30	20	0	100	23	109	0	10	0	0	0
Ave Period 1 13-11-2023 07:10	35.3833	9.65	310.233	.171166	80.9666	42.1	34.5166	0	100	22.7	109	0	10.4433	0	0	0
	49	19	324	.26	97	49	58	0	100	23	109	0	10.5	0	0	0
	15	1	293	.14	70	36	16	0	100	22	109	0	10	0	0	0
Ave Period 1 13-11-2023 08:10	18.6333	1.03333	329.783	.149333	72.3833	37.6666	23.1166	0	100	22	109.016	0	10.46	0	0	0
	32	3	343	.2	95	46	46	0	100	22	110	0	10.5	0	0	0
	11	1	322	.09	63	31	6	0	100	22	109	0	10	0	0	0
Ave Period 1 13-11-2023 09:10	25.5	1.51666	343.483	.124833	64.9833	34.1333	7.5	0	100	21.3833	109.033	0	10.4533	0	0	0
	73	6	355	.24	76	41	19	0	100	22	110	0	10.5	0	0	0
	14	1	334	.08	60	29	3	0	100	21	109	0	10	0	0	0



Environmental Report

Record Cnt 1440

13-11-2023

Start Date

3:11:00 PM

End Date

14-11-2023

3:10:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	24.6513	4.62638	328.629	.108090	40.7361	22.8430	13.5138	0	100	23.6826	152.055	.074722	10.3616	0	0	0
Max	88	52	407	1.1	97	49	206	0	100	32	358	2.6	10.6	0	0	0
Min	2	1	255	0	2	1	0	0	100	20	0	0	9.9	0	0	0
Ave Period 1 13-11-2023 10:10	26.2333	2.95	363.383	.078166	59.45	33.2666	4.26666	0	100	21	109	0	10.4533	0	0	0
	37	8	376	.13	67	36	9	0	100	21	109	0	10.5	0	0	0
	13	1	345	.05	55	29	0	0	100	21	109	0	10	0	0	0
Ave Period 1 13-11-2023 11:10	26.45	1.08333	374.483	.207166	62.0666	31.3833	11.4333	0	100	21	109	0	10.44	0	0	0
	36	2	394	.34	68	34	18	0	100	21	109	0	10.5	0	0	0
	13	1	360	.04	57	28	1	0	100	21	109	0	10	0	0	0
Ave Period 1 13-11-2023 11:59	20.5714	1.26530	394.775	.052653	53.7755	29.4285	3.51020	0	100	20.1428	109	0	10.4877	0	0	0
	30	4	406	.17	60	35	11	0	100	21	109	0	10.5	0	0	0
	10	1	377	0	46	26	0	0	100	20	109	0	10.3	0	0	0
Daily Tue, Nov 14, 2023	20.0900	3.05817	330.936	.090647	31.7266	17.3380	10.0834	0	100	24.1086	161.945	.110537	10.3062	0	0	0
	88	41	407	1.1	69	36	206	0	100	32	358	2.6	10.5	0	0	0
	2	1	264	0	2	1	0	0	100	20	0	0	9.9	0	0	0
Ave Period 1 14-11-2023 12:10	27.1818	3.81818	404.363	0	53	29	0	0	100	20	109	0	10.3636	0	0	0
	31	5	406	0	55	32	0	0	100	20	109	0	10.5	0	0	0
	18	2	398	0	50	27	0	0	100	20	109	0	10	0	0	0
Ave Period 1 14-11-2023 01:10	16.25	2.11666	390.916	.102666	53.1	29.35	.3	0	100	20	109	0	10.4483	0	0	0
	28	5	405	.12	58	33	3	0	100	20	109	0	10.5	0	0	0
	10	1	373	0	47	25	0	0	100	20	109	0	10	0	0	0
Ave Period 1 14-11-2023 02:10	14.75	1.43333	390.316	.116	56.2666	29.05	1.16666	0	100	20	109.033	0	10.4033	0	0	0
	26	5	407	.13	63	33	5	0	100	20	110	0	10.5	0	0	0
	9	1	385	.1	49	23	0	0	100	20	109	0	10	0	0	0
Ave Period 1 14-11-2023 03:10	12.4666	1.21666	369.466	.133666	59.4833	32.4	5.56666	0	100	20.7	109	0	10.3783	0	0	0
	15	3	396	.16	69	36	10	0	100	21	109	0	10.5	0	0	0
	8	1	356	.11	53	28	0	0	100	20	109	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

13-11-2023

Start Date

3:11:00 PM

End Date

14-11-2023

3:10:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	24.6513	4.62638	328.629	.108090	40.7361	22.8430	13.5138	0	100	23.6826	152.055	.074722	10.3616	0	0	0
Max	88	52	407	1.1	97	49	206	0	100	32	358	2.6	10.6	0	0	0
Min	2	1	255	0	2	1	0	0	100	20	0	0	9.9	0	0	0
Ave Period 1 14-11-2023 04:10	11.2833	1.83333	355.416	.118166	55.2	30.0166	1.08333	0	100	20.2666	53.6166	0	10.3383	0	0	0
...	15	5	373	.13	62	33	7	0	100	21	109	0	10.5	0	0	0
...	5	1	345	.11	52	28	0	0	100	20	2	0	9.9	0	0	0
Ave Period 1 14-11-2023 05:10	21.05	1.81666	365.1	.116	50.65	27.8333	2.78333	0	100	20	2	0	10.31	0	0	0
...	37	4	387	.18	58	34	15	0	100	20	2	0	10.5	0	0	0
...	9	1	355	.05	46	25	0	0	100	20	2	0	9.9	0	0	0
Ave Period 1 14-11-2023 06:10	37.95	2.98333	365.9	.155	53.75	28.3	14.35	0	100	20	161.3	.003333	10.2883	0	0	0
...	69	6	390	.43	59	32	108	0	100	20	344	.1	10.5	0	0	0
...	18	1	354	.03	47	23	0	0	100	20	2	0	9.9	0	0	0
Ave Period 1 14-11-2023 07:10	36.2666	1.03333	354.65	.122833	50.9333	28.0833	10.1	0	100	20	290	0	10.295	0	0	0
...	74	2	361	.51	56	31	41	0	100	20	290	0	10.5	0	0	0
...	15	1	344	0	47	26	0	0	100	20	290	0	9.9	0	0	0
Ave Period 1 14-11-2023 08:10	53.2	1.7	342.016	.189	49.7166	26.1833	11.75	0	100	20.7666	292.066	.008333	10.3133	0	0	0
...	61	6	353	1.1	61	30	206	0	100	22	296	.2	10.5	0	0	0
...	47	1	334	.1	43	23	0	0	100	20	287	0	10.3	0	0	0
Ave Period 1 14-11-2023 09:10	17.6166	1	322.55	.099666	30.9	20.5166	3.11666	0	100	24.05	92.6833	0	10.2083	0	0	0
...	54	1	335	.13	53	31	8	0	100	26	296	0	10.5	0	0	0
...	2	1	314	.07	2	8	0	0	100	22	64	0	9.9	0	0	0
Ave Period 1 14-11-2023 10:10	4.8	1.93333	293.35	.0335	2	1.2	0	0	100	27.0166	92.15	.221666	10.285	0	0	0
...	14	7	306	.09	2	6	0	0	100	28	358	1.1	10.5	0	0	0
...	2	1	283	0	2	1	0	0	100	26	2	0	10	0	0	0
Ave Period 1 14-11-2023 11:10	2.66666	1.03333	288.916	.004666	2	1	4.01666	0	100	29.2833	152.566	.278333	10.26	0	0	0
...	11	2	298	.03	2	1	10	0	100	30	334	1.4	10.3	0	0	0
...	2	1	275	0	2	1	0	0	100	27	17	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

13-11-2023

Start Date

3:11:00 PM

End Date

14-11-2023

3:10:00 PM

	PMA ug/m3		CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V			
Ave	24.6513	4.62638	328.629	.108090	40.7361	22.8430	13.5138	0	100	23.6826	152.055	.074722	10.3616	0	0	0
Max	88	52	407	1.1	97	49	206	0	100	32	358	2.6	10.6	0	0	0
Min	2	1	255	0	2	1	0	0	100	20	0	0	9.9	0	0	0
Ave Period 1 14-11-2023 12:10	4.18333	1.63333	281.45	.0015	2	1	12.3166	0	100	30.8166	226.916	.37	10.2666	0	0	0
	29	9	284	.02	2	1	19	0	100	31	355	1.5	10.5	0	0	0
	2	1	273	0	2	1	4	0	100	30	1	0	9.9	0	0	0
Ave Period 1 14-11-2023 01:10	6.48333	1.9	280.833	0	2	1	21.8666	0	100	30.7	260.85	.463333	10.2666	0	0	0
	33	15	284	0	2	1	28	0	100	32	358	2.6	10.3	0	0	0
	2	1	273	0	2	1	8	0	100	29	0	0	9.9	0	0	0
Ave Period 1 14-11-2023 02:10	46.75	21.9666	277.033	.1045	2	1	35.0333	0	100	29.6666	265.433	.048333	10.26	0	0	0
	88	41	286	.4	2	1	55	0	100	31	354	.5	10.3	0	0	0
	2	1	268	0	2	1	20	0	100	28	7	0	9.9	0	0	0
Ave Period 1 14-11-2023 03:10	14.3333	2.13333	272.666	.079166	2	1	29.65	0	100	29.1166	222.266	.285	10.2616	0	0	0
	44	8	281	.13	2	1	35	0	100	31	356	2.5	10.3	0	0	0
	2	1	264	.04	2	1	20	0	100	28	0	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

01-12-2023

Start Date

1:44:00 PM

Location: Plant Site

End Date

02-12-2023

1:43:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	27.1263	3.71736	332.596	.102048	29.7965	18.4090	7.95763	0	80.5493	23.8583	89.525	.413541	10.2764	0	0	0
Max	62	22	417	.5	82	45	48	0	100	32	360	5.3	10.5	0	0	0
Min	2	1	262	0	2	1	0	0	37	20	0	0	9.7	0	0	0
EPAS 919217	27.1263	3.71736	332.596	.102048	29.7965	18.4090	7.95763	0	80.5493	23.8583	89.525	.413541	10.2764	0	0	0
	62	22	417	.5	82	45	48	0	100	32	360	5.3	10.5	0	0	0
	2	1	262	0	2	1	0	0	37	20	0	0	9.7	0	0	0
Daily	34.2922	6.32467	318.668	.130081	36.7954	23.8392	14.4626	0	82.3587	23.4415	91.4090	.348051	10.3251	0	0	0
Fri, Dec 1, 2023	62	22	395	.5	82	45	48	0	100	27	360	3.7	10.5	0	0	0
	4	1	262	0	2	1	1	0	56	21	0	0	9.9	0	0	0
Ave Period 1 01-12-2023 02:43	34.5333	8.06666	270.1	.0575	2	6.81666	13	0	58.4166	26.95	173.833	2.09666	10.41	0	0	0
	45	15	273	.1	2	11	16	0	60	27	234	3.7	10.5	0	0	0
	17	1	262	.04	2	1	10	0	56	26	103	.8	9.9	0	0	0
Ave Period 1 01-12-2023 03:43	38.1333	10.7666	271.4	.1175	2	11.3666	13.5833	0	60.0833	26.35	154.166	1.16833	10.41	0	0	0
	57	22	273	.24	2	18	18	0	64	27	212	2.8	10.5	0	0	0
	18	2	264	.08	2	6	10	0	58	26	106	.1	9.9	0	0	0
Ave Period 1 01-12-2023 04:43	43.25	11.7833	272.35	.150666	10.85	19.3833	15.9666	0	66.2	25.9166	178.283	.183333	10.33	0	0	0
	57	20	279	.21	30	24	20	0	70	26	202	1.4	10.5	0	0	0
	27	5	271	.11	2	14	13	0	64	25	118	0	9.9	0	0	0
Ave Period 1 01-12-2023 05:43	44.0166	11.8166	285.9	.1975	38.15	24.9	19.9333	0	77.9	24.25	176.55	.08	10.29	0	0	0
	61	20	302	.5	59	31	32	0	85	26	360	1.3	10.5	0	0	0
	18	2	276	.09	23	19	13	0	71	23	33	0	9.9	0	0	0
Ave Period 1 01-12-2023 06:43	45.1166	8.93333	305.683	.096666	58.2	32.8833	22.6	0	85.5166	23	244.483	.045	10.2716	0	0	0
	62	19	324	.38	73	41	35	0	88	23	352	1	10.5	0	0	0
	28	1	292	0	48	25	12	0	83	23	11	0	9.9	0	0	0
Ave Period 1 01-12-2023 07:43	36.3666	7.98333	323.05	.139166	62.9666	36.0166	33.3	0	88	22.4333	11.15	0	10.2833	0	0	0
	58	13	355	.33	82	45	48	0	92	23	15	0	10.5	0	0	0
	11	1	304	0	50	29	20	0	85	22	0	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

01-12-2023

Start Date 1:44:00 PM

End Date 02-12-2023

1:43:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	27.1263	3.71736	332.596	.102048	29.7965	18.4090	7.95763	0	80.5493	23.8583	89.525	.413541	10.2764	0	0	0
Max	62	22	417	.5	82	45	48	0	100	32	360	5.3	10.5	0	0	0
Min	2	1	262	0	2	1	0	0	37	20	0	0	9.7	0	0	0
Ave Period 1 01-12-2023 08:43	13.2166	1	346.3	.146166	55.3666	29.25	17.0666	0	93.0166	22	0	0	10.34	0	0	0
	29	1	364	.2	72	35	35	0	96	22	0	0	10.5	0	0	0
	4	1	334	.08	44	24	5	0	90	22	0	0	9.9	0	0	0
Ave Period 1 01-12-2023 09:43	23.8666	1.05	355.183	.123	48.0166	25.5833	4.73333	0	94.6	21.9666	0	0	10.3316	0	0	0
	42	2	375	.27	56	32	9	0	98	22	0	0	10.5	0	0	0
	12	1	334	.06	44	20	2	0	92	21	0	0	9.9	0	0	0
Ave Period 1 01-12-2023 10:43	32.4166	1.13333	365.233	.139666	45.4166	26.9666	4.05	0	97.1833	21.2	0	0	10.285	0	0	0
	41	3	386	.2	49	32	7	0	98	22	0	0	10.5	0	0	0
	18	1	355	.1	41	24	1	0	96	21	0	0	9.9	0	0	0
Ave Period 1 01-12-2023 11:43	36.7166	1.23333	375.316	.1425	44.0333	26.0333	3.7	0	98.15	21	0	0	10.3	0	0	0
	44	3	391	.21	51	30	5	0	100	21	0	0	10.5	0	0	0
	17	1	359	.1	39	22	1	0	97	21	0	0	9.9	0	0	0
Ave Period 1 01-12-2023 11:59	16.625	4.375	379.312	.094375	40.375	20.8125	2.0625	0	99.3125	21	0	0	10.325	0	0	0
	18	7	395	.11	46	24	3	0	100	21	0	0	10.5	0	0	0
	13	1	355	.09	35	17	1	0	98	21	0	0	10.3	0	0	0
Daily Sat, Dec 2, 2023	21.7694	1.76820	343.008	.081092	24.5643	14.3495	3.09466	0	79.1966	24.1699	88.1165	.4625	10.2400	0	0	0
	48	11	417	.29	50	30	26	0	100	32	359	5.3	10.5	0	0	0
	2	1	269	0	2	1	0	0	37	20	0	0	9.7	0	0	0
Ave Period 1 02-12-2023 12:43	32.7954	2.18181	369.886	.101363	41.2954	21.4545	2.22727	0	99.4318	21	0	0	10.2909	0	0	0
	41	6	385	.13	46	24	4	0	100	21	0	0	10.5	0	0	0
	26	1	354	.08	36	18	0	0	98	21	0	0	9.9	0	0	0
Ave Period 1 02-12-2023 01:43	35.5833	3.76666	372.366	.108833	40.1666	21.4333	2.25	0	99.3833	21	0	0	10.28	0	0	0
	42	8	394	.13	45	25	4	0	100	21	0	0	10.5	0	0	0
	31	1	350	.08	32	18	0	0	97	21	0	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

01-12-2023

Start Date

1:44:00 PM

End Date 02-12-2023

1:43:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	27.1263	3.71736	332.596	.102048	29.7965	18.4090	7.95763	0	80.5493	23.8583	89.525	.413541	10.2764	0	0	0
Max	62	22	417	.5	82	45	48	0	100	32	360	5.3	10.5	0	0	0
Min	2	1	262	0	2	1	0	0	37	20	0	0	9.7	0	0	0
Ave Period 1 02-12-2023 02:43	34.1	1.78333	377.783	.1085	40.0833	22.95	3.06666	0	99.8	21	0	0	10.2633	0	0	0
	40	5	393	.16	50	30	8	0	100	21	0	0	10.5	0	0	0
	26	1	356	.07	33	19	1	0	98	21	0	0	9.9	0	0	0
Ave Period 1 02-12-2023 03:43	27.9	1.91666	384.233	.106166	37.4	21.7	3.33333	0	100	21	0	0	10.26	0	0	0
	46	8	417	.13	45	25	8	0	100	21	0	0	10.3	0	0	0
	11	1	355	.08	30	17	0	0	100	21	0	0	9.9	0	0	0
Ave Period 1 02-12-2023 04:43	25.85	1.56666	386.7	.103666	37.0166	21.6833	2.5	0	100	21	0	0	10.2583	0	0	0
	36	3	407	.12	43	26	10	0	100	21	0	0	10.3	0	0	0
	15	1	362	.09	33	18	0	0	100	21	0	0	9.9	0	0	0
Ave Period 1 02-12-2023 05:43	28.6	1.68333	377.216	.128666	36.4666	21.5666	3.5	0	100	21	0	0	10.2566	0	0	0
	42	5	402	.18	43	24	13	0	100	21	0	0	10.3	0	0	0
	14	1	365	.09	30	17	0	0	100	21	0	0	9.9	0	0	0
Ave Period 1 02-12-2023 06:43	40.3833	1.01666	386.166	.129	35.1833	20.5166	6.26666	0	100	21	0	0	10.255	0	0	0
	48	2	406	.29	41	23	26	0	100	21	0	0	10.3	0	0	0
	33	1	375	.09	29	18	0	0	100	21	0	0	9.9	0	0	0
Ave Period 1 02-12-2023 07:43	31.5666	1.06666	374.933	.190166	38.8333	21.3833	12.2666	0	98.1	21.0833	219.616	0	10.24	0	0	0
	37	4	407	.27	44	25	21	0	100	22	283	0	10.3	0	0	0
	26	1	356	.16	33	18	4	0	94	20	0	0	9.7	0	0	0
Ave Period 1 02-12-2023 08:43	22.0166	1.75	335.05	.101	30.1166	20.3666	2.7	0	80.2166	23.25	192.116	.181666	10.2483	0	0	0
	34	6	362	.23	45	25	8	0	94	25	358	2.1	10.3	0	0	0
	7	1	314	.07	14	16	0	0	69	21	3	0	9.9	0	0	0
Ave Period 1 02-12-2023 09:43	8.9	1.43333	304.6	.057	3.8	5.73333	.066666	0	60.1166	26.25	195.533	.676666	10.2316	0	0	0
	28	7	315	.1	16	16	1	0	70	27	356	3.3	10.3	0	0	0
	4	1	293	.04	2	1	0	0	55	25	6	0	9.9	0	0	0



Environmental Report

Record Cnt 1440

01-12-2023

Start Date

1:44:00 PM

End Date 02-12-2023

1:43:00 PM

	PMA ug/m3	CO2 ppm	CO ppm	NO2 ppb	O3 ppb	SO2 ppb	PrpM mm	RH %	TmpC Deg. C	WDir Deg.	WSpd mph	Pwr V				
Ave	27.1263	3.71736	332.596	.102048	29.7965	18.4090	7.95763	0	80.5493	23.8583	89.525	.413541	10.2764	0	0	0
Max	62	22	417	.5	82	45	48	0	100	32	360	5.3	10.5	0	0	0
Min	2	1	262	0	2	1	0	0	37	20	0	0	9.7	0	0	0
Ave Period 1 02-12-2023 10:43	3.5	1.16666	291.766	.0055	2	1	0	0	51.1833	28.05	88.6833	1.00166	10.215	0	0	0
	16	3	304	.06	2	1	0	0	56	29	352	3.1	10.3	0	0	0
	2	1	283	0	2	1	0	0	47	27	16	0	9.9	0	0	0
Ave Period 1 02-12-2023 11:43	4.73333	1.71666	295.633	0	2	1	0	0	43.9	30.05	149.933	.646666	10.1933	0	0	0
	17	11	314	0	2	1	0	0	50	31	359	3.3	10.3	0	0	0
	2	1	283	0	2	1	0	0	38	28	3	0	9.7	0	0	0
Ave Period 1 02-12-2023 12:43	3.83333	1.1	277.283	.000666	2	1	0	0	39	31.0333	159.166	1.50166	10.19	0	0	0
	13	4	283	.01	2	1	0	0	43	32	267	2.7	10.3	0	0	0
	2	1	273	0	2	1	0	0	37	30	69	.3	9.7	0	0	0
Ave Period 1 02-12-2023 01:43	7.95	2.71666	275.666	.000166	2	1	4.91666	0	43.0166	30.8166	205.083	2.34333	10.1916	0	0	0
	27	9	285	.01	2	1	9	0	48	32	321	5.3	10.3	0	0	0
	2	1	269	0	2	1	0	0	40	30	129	.2	9.9	0	0	0

APPENDIX-D

Corporate Social Responsibility



Shwe Taung Cement

Plant

Newsletter

Volume 5 | 2023 | July to September



အဓိကဆောင်ရွက်ချက်

“ ၂၀၂၃ ခုနှစ် ဩဂုတ်လ ၂၅ ရက်နေ့တွင်ရွှေတောင်ဘီလပ်မြေစက်ရုံ ဘီလပ်မြေထုတ်လုပ်ခြင်းလုပ်ငန်း အတွက် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာဆောင်ရွက်မှုသက်သေခံ လက်မှတ်ရရှိခြင်း ”

မာတိကာ

- စာမျက်နှာ - ၁
ရွှေတောင်ဘီလပ်မြေကုမ္ပဏီလီမိတက်(အပါချီဘီလပ်မြေစက်ရုံ) လည်ပတ်မှုအခြေအနေ၊ သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာလုပ်ငန်း များနှင့် လူမှုရေးဆိုင်ရာ အဓိကဆောင်ရွက်ချက်များ
- စာမျက်နှာ- ၂
သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာထိန်းသိမ်းရေးလုပ်ငန်းများဆောင်ရွက် ထားရှိခြင်း။
- စာမျက်နှာ - ၃, ၄, ၅
ပညာရေးကဏ္ဍ၏ လိုအပ်ချက်များထောက်ပံ့ပေးခြင်း။
- စာမျက်နှာ - ၆
သတင်း အချက်အလက် မျှဝေပေးခြင်း။
- စာမျက်နှာ - ၇
၂၀၂၃ခုနှစ်၊ ဇူလိုင်လ မှ စက်တင်ဘာလအတွင်း ဒေသဖွံ့ဖြိုးရေး လုပ်ငန်းများ ကူညီပံ့ပိုးပေးခြင်း။
- စာမျက်နှာ - ၈
ဒေသခံများ၊ စက်ရုံဝန်ထမ်းများနှင့် မိသားစုဝင်များအား ကျန်းမာရေး စောင့်ရှောက်ပေးခြင်းနှင့် ကျန်းမာရေးဗဟုသုတမျှဝေခြင်း။ ညှိနှိုင်း ဆွေးနွေးခြင်းများ။
- စာမျက်နှာ - ၉
စက်ရုံအနီးရှိကျေးရွာများမှ ဒေသခံများ၏ အကြံပြုချက်၊ မကျေနပ်ချက် နှင့် တိုင်ကြားချက်များ ထည့်ဝင်ထားသည့် အကြံပြုစာတိုက်ပုံများအား ဖွင့်ဖောက်ခြင်း။
- စာမျက်နှာ - ၁၀
အလုပ်အကိုင်အခွင့်အလမ်းနှင့်ပတ်သက်၍ သတင်းအချက်အလက်များ ထုတ်ပြန်ခြင်း။

ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီ(အပါချီဘိလပ်မြေစက်ရုံ)၏ လုပ်ငန်းလည်ပတ်မှုအခြေအနေ

ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက် (အပါချီဘိလပ်မြေစက်ရုံ)မှ ဘိလပ်မြေများကို ပထမလိုင်း နှင့် ဒုတိယလိုင်း (၂)လိုင်းဖြင့် ထုတ်လုပ်လျက်ရှိပါသည်။ ၂၀၂၃ ခုနှစ် ဩဂုတ်လ (၂၅) ရက်နေ့တွင် ရွှေတောင်ဘိလပ်မြေစက်ရုံဘိလပ်မြေထုတ်လုပ်ခြင်းလုပ်ငန်းအတွက် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှပေးအပ်သည့်ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာလိုက်နာဆောင်ရွက်မှုသက်သေခံလက်မှတ်ရရှိခဲ့ပါသည်။

လူမှုရေးဆိုင်ရာ အဓိကဆောင်ရွက်ချက်များ

- ◆ ၂၀၂၃-ခုနှစ်၊ ဇူလိုင်လမှ စက်တင်ဘာလအတွင်း ရွှေတောင်ဘိလပ်မြေ ကုမ္ပဏီလီမိတက် (အပါချီဘိလပ်မြေစက်ရုံ) မှ ပြည်ညောင်ကျေးရွာရှိ သတင်းအချက်အလက်ဆိုင်ရာဗဟိုဌာနနှင့် စာကြည့်တိုက်တွင်လည်းကောင်း၊ ကူပြင်ကျေးရွာရှိ ထာဝရအလင်းတန်း စာကြည့်တိုက်တွင်လည်းကောင်း ဒေသနေပြည်သူများစာပေဗဟုသုတ၊ ပြင်ပအထွေထွေဗဟုသုတ၊ သတင်းအချက်အလက်နှင့်နည်းပညာများ လေ့လာနိုင်စေရန် လစဉ် စာအုပ်အသစ်များ ထားရှိပေးခြင်း နှင့် Internet Wi-Fi အခမဲ့တပ်ဆင်ပေးခြင်းများ ကူညီပံ့ပိုးပေးလျက်ရှိပါသည်။



ပုံ - ပြည်ညောင်နှင့်ကူပြင်ကျေးရွာရှိ သတင်းအချက်အလက်ဆိုင်ရာဗဟိုဌာနနှင့်စာကြည့်တိုက်။

သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းစောင့်ရှောက်ရေးဆောင်ရွက်ပေးခြင်း

- ◆ ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက်၏ ဓာတ်ခွဲခန်းနှင့် အရည်အသွေး ထိန်းချုပ်ရေးဌာနမှ ၂၀၂၃နှစ်၊ ဇူလိုင်လ မှ စက်တင်ဘာလအတွင်း ပြည်ညောင်၊ ကူပြင်၊ မဒါန်းနှင့် ရေအေးကျေးရွာများတွင် သောက်ရေ၊ သုံးရေနှင့် အမှုန်များ တိုင်းတာစစ်ဆေးခဲ့ပြီး ၎င်းစစ်ဆေး မှုရလဒ်များအား ကမ္ဘာ့ကျန်းမာရေးအဖွဲ့နှင့် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေးထုတ်လွှတ်မှု လမ်းညွှန်ချက်များနှင့် ကိုက်ညီမှု ရှိကြောင်းကို ကျေးရွာအုပ်ချုပ်ရေးမှူးရုံးအနီးရှိ ရေသန့်စက်တွင်လည်းကောင်း၊ ကူပြင်ကျေးရွာရှိ ထာဝရအလင်းတန်း စာကြည့်တိုက် တွင်လည်းကောင်း၊ ပြည်ညောင်ကျေးရွာရှိ သတင်းအချက်အလက်ဆိုင်ရာ ဗဟိုဌာနနှင့်စာကြည့်တိုက်တွင်လည်းကောင်း၊ မဒါန်းနှင့်ရေအေးကျေးရွာများရှိ အကြံပြုစာတိုက်ပုံးများထားရှိရာ နေရာတွင်လည်းကောင်း သတင်းထုတ်ပြန်ကြေငြာခဲ့ပါသည်။



ပုံ - ပြည်ညောင်ကျေးရွာရှိသောက်ရေသန့်စက်တွင် သောက်ရေ၊ သုံးရေစစ်ဆေးမှုရလဒ်များ ထုတ်ပြန်ကြေညာခြင်း။



ပုံ - မဒါန်းကျေးရွာရှိ အကြံပြုစာတိုက်ပုံးထားရှိရာ နေရာတွင် သောက်ရေသုံးရေ စစ်ဆေးမှုရလဒ်များ ထုတ်ပြန်ကြေညာခြင်း။

သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းစောင့်ရှောက်ရေး ဆောင်ရွက်ပေးခြင်း

- ◆ ပြည်ညောင်နှင့် ကူပြင်ကျေးရွာရှိ ဒေသနေကျောင်းသား၊ ကျောင်းသူများ သဘာဝပတ်ဝန်းကျင်အား ချစ်မြတ်နိုးတက်စေရန်၊ ထိန်းသိမ်းကာကွယ်တက်စေရန်ရည်ရွယ်၍ ၂၀၂၃ခုနှစ်၊ ဇူလိုင်လမှစက်တင်ဘာလအတွင်း “ပတ်ဝန်းကျင်သာယာလှပဖို့မျောက်လေပွေများအား ထိန်းသိမ်းစို့” ခေါင်းစဉ်ဖြင့် မျိုးတုန်းပျောက်ကွယ်လုနီးဖြစ်ပေါ်လျက်ရှိသည့် မျောက်လေပွေများ၏ နေထိုင်ကျက်စားပုံများ၊ ထိန်းသိမ်းကာကွယ်နည်းများအား ဗဟုသုတမျှဝေ၍ ဆေးရောင်စုံပန်းချီရေးဆွဲခြင်းများဖြင့် အသိပညာပေးပွဲများ ကျင်းပပေးခြင်း။
- ◆ ၂၀၂၃ခုနှစ်၊ စက်တင်ဘာလအတွင်း ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီ (အပါချီဘိလပ်မြေစက်ရုံ၏ အစားထိုးစိုက်ခင်းအတွင်းပေါင်းပင်ရှင်းလင်းခြင်း၊ မြေဩဇာကျွေးခြင်းလုပ်ငန်းစဉ်များဆောင်ရွက်လုပ်ကိုင်ရာတွင် ကူပြင်ကျေးရွာဒေသနေပြည်သူများအား အလုပ်အကိုင်အခွင့်အလမ်းဆောင်ရွက်ပေးခြင်း။
- ◆ ၂၀၂၃ခုနှစ်၊ စက်တင်ဘာလ (၂၁)ရက်နေ့တွင် ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီ(အပါချီဘိလပ်မြေစက်ရုံ)မှ ရထားပြည်ညောင် ကြိုးဝိုင်းအတွင်းရှိ ဂေဟစနစ်ဖြည့်တင်းရေးစိုက်ခင်း(၁၀၀)ဧက၏ စိုက်ပျိုးရှင်သန်အောင်မြင်မှုအခြေအနေအား နေပြည်တော်သစ်တောဦးစီးဌာန၊ ညွှန်ကြားရေးမှူးရုံးချုပ်မှ အရာရှိများနှင့် သာစည်မြို့နယ်မှ အရာရှိများ လာရောက် ကွင်းဆင်းကြည့်ရှုစစ်ဆေးခြင်း။
- ◆ ၂၀၂၃ခုနှစ်၊ ဇူလိုင်လမှ စက်တင်ဘာလအတွင်း ပြည်ညောင်၊ ကူပြင်၊ ရေအေးနှင့် မဒါန်းကျေးရွာများသို့ ပျိုးပင် (၁၂၃၀) စိုက်ပျိုးရန် ပေးအပ်ခဲ့ပါသည်။



ပုံ - ပြည်ညောင်(ရထား)ကျေးရွာသစ်တောကြိုးဝိုင်းသို့ နေပြည်တော်သစ်တောဦးစီးဌာန၊ ညွှန်ကြားရေးမှူးရုံးချုပ်မှ အရာရှိများနှင့် သာစည်မြို့နယ်မှ အရာရှိများ လာရောက် စစ်ဆေးနေစဉ်။



ပုံ - အစားထိုးစိုက်ခင်းများအား မြေဩဇာကျွေးခြင်းများ ဆောင်ရွက် နေစဉ်။



ပုံ - ကျေးရွာများသို့ ပျိုးပင်များ စိုက်ပျိုးရန် ပေးအပ်နေစဉ်။

၂၀၂၃ ခုနှစ် ဇူလိုင်လမှ စက်တင်ဘာလအတွင်း ပညာရေး ကဏ္ဍ၏ လိုအပ်ချက်များအား ပံ့ပိုးကူညီပေးခြင်း

- ◆ ၂၀၂၃-ခုနှစ်၊ ဇူလိုင်မှစက်တင်ဘာလအတွင်း ပြည်ညောင် နှင့် ကူပြင်ကျေးရွာ ဒေသနေကျောင်းသား၊ ကျောင်းသူများ စာပေဗဟုသုတတိုးပွားစေရန်၊ စာဖတ် စွမ်းရည်တိုးတက် စေရန်ရည်ရွယ်၍ စာဖတ်ပွဲများ ကျင်းပပေးလျက်ရှိပါသည်။ ၎င်းစာဖတ်ပွဲတွင် “ခြင်အကြောင်း သိကောင်းစရာများ”၊ “ဝမ်းပျက်ဝမ်းလျှော အကြောင်း သိကောင်းစရာများ” ခေါင်းစဉ်ဖြင့် ကျန်းမာရေး နှင့်ပတ်သက်သည့် စာဖတ်ပွဲ ကျင်းပခြင်း။
- ◆ ပြည်ညောင်ကျေးရွာ အခြေခံပညာအထက်တန်းကျောင်း တွင်ဆရာ/မများနှင့် ကျောင်းသား/သူများ သုံးရေအဆင် ပြေစေရန် ရေပိုက်လိုင်းသွယ်တန်းပေးခြင်း။
- ◆ ပြည်ညောင်ကျေးရွာ၊ အခြေခံပညာအထက်တန်းကျောင်း တွင် သောက်ရေသန့်စက်အတွက် ရေသိုလှောင်ကန်အသစ် တည်ဆောက်နိုင်ရန် ရန်ပုံငွေကူညီပံ့ပိုးပေးခြင်း။
- ◆ ကူပြင်ကျေးရွာ အခြေခံပညာအလယ်တန်းကျောင်း တွင် သင်ကြားပို့ချရေး အဆင်ပြေစေရန် အတွက် ပြင်ပမှဌာနရမ်းထားသည့် ဆရာမ (၂)ဦး၏ လစာငွေ ကူညီပံ့ပိုးပေးခြင်း။
- ◆ ပြည်ညောင်နှင့် ကူပြင်ကျေးရွာရှိ စာသင်ကျောင်းများမှ ကျောင်းသား၊ကျောင်းသူ (၁၀)ဦးအား ပညာသင်ထောက်ပံ့



ပုံ - ပြည်ညောင်ကျေးရွာ အခြေခံပညာအထက်တန်းကျောင်း နှင့် ကူပြင်ကျေးရွာ အခြေခံပညာအလယ်တန်းကျောင်း တို့တွင် ဆေးရောင်စုံ ပန်းချီချယ်ပွဲ ကျင်းပနေစဉ်။



ပုံ - ပြည်ညောင်နှင့်ကူပြင်ကျေးရွာတွင် ကျန်းမာရေး နှင့် ပတ်သက် သည့် စာဖတ်ပွဲကျင်းပနေစဉ်။



ပုံ - ကူပြင်စာသင်ကျောင်းတွင် ဆရာမ(၂)ဦး၏ လစာငွေ ပေးအပ်ခြင်း။



ပုံ - ပြည်ညောင်စာသင်ကျောင်းသို့ သိုလှောင်ကန်ဆောက်လုပ်ရန် လှူဒါန်းခြင်း။

၂၀၂၃ ခုနှစ် ဇူလိုင်လမှ စက်တင်ဘာလအတွင်း ပညာရေး ထူးချွန်၍ ကျောင်းသား/သူများကို အပါချီပညာသင်ထောက်ပံ့ကြေးပေးအပ်ခြင်း



ပုံ - ပြည်ညောင်ကျေးရွာအခြေခံပညာအထက်တန်းကျောင်းနှင့်ကူပြင်ကျေးရွာအခြေခံပညာ အလယ်တန်းကျောင်းတို့မှ ထူးချွန်သည့် ကျောင်းသား/သူ (၁၀)ဦးအား ပညာသင်ထောက်ပံ့ကြေးပေးအပ်ခြင်း။

၂၀၂၃-၂၀၂၄ ခုနှစ်အတွင်း အခြေခံပညာအထက်တန်းကျောင်းပြည်ညောင်နှင့် အခြေခံပညာအလယ်တန်းကျောင်းမှ ပညာသင်ထောက်ပံ့ကြေးရရှိသူများစာရင်း				
စဉ်	အမည်	အဖအမည်	အတန်း	ကျေးရွာ
၁	မစာစာဝင်း	ဦးပေါ်ဘီ	Grade 11	ပြည်ညောင်
၂	မသင်းနဒီလှိုင်	ဦးနေလင်း	Grade 11	ပြည်ညောင်
၃	မောင်ဟိန်းထက်အောင်	ဦးညွန့်အောင်	Grade 11	ပြည်ညောင်
၄	မခင်မျိုးအောင်	ဦးချမ်းသာ	Grade 10	ပြည်ညောင်
၅	မနုနုမိုးအောင်	ဦးမိုးအောင်	Grade 10	ပြည်ညောင်
၆	မောင်သူထူးလွင်	ဦးကြည်လွင်	Grade 9	ပြည်ညောင်
၇	မနိုးနိုး	ဦးဝင်းအေး	Grade 9	ပြည်ညောင်
၈	မသဉ္ဇာမော်	ဦးဖိုးသီ	Grade 9	ကျပြင်
၉	မဖြူစင်နှင်းသက်	ဦးတင်ထွန်း	Grade 9	ကျပြင်
၁၀	မနန်းအိဖြူ	ဦးနေလင်းအောင်	Grade 8	ကျပြင်



- ◆ ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက် (အပါချီဘိလပ်မြေစက်ရုံ)မှ ကူပြင်နှင့်ပြည်ညောင်ကျေးရွာများသို့ အခမဲ့ကျန်းမာရေး စောင့်ရှောက်ပေးမည့်နေ့ရက်များကို ကြိုတင်သတင်းထုတ်ပြန် ပေးလျက်ရှိပါသည်။
- ◆ ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက်မှ ပြည်ညောင်နှင့်ကူပြင် ကျေးရွာများသို့ ဒေသဖွံ့ဖြိုးရေး၊ ကျန်းမာရေး၊ လူမှုရေး၊ ဘာသာရေး စသည့် ဆောင်ရွက်ထားရှိမှုများကိုမှတ်တမ်းတင်ထားသည့် စာစဉ် သတင်းလွှာ စာဆောင်များအားဒေသခံများသိရှိစေရန် ထုတ်ပြန် ကြေညာခြင်းများ ဆောင်ရွက်လျက်ရှိပါသည်။
- ◆ ပြည်ညောင်ကျေးရွာရှိ ဒေသခံလူဦးရေ (၄၅၂)ဦးမှ ရွှေတောင် ဘိလပ်မြေစက်ရုံမှ ဖွင့်လှစ်ပေးထားသော သတင်းအချက်အလက် ဆိုင်ရာဗဟိုဌာနနှင့် စာကြည့်တိုက်သို့ စာအုပ်ရေ (၉၅၉)အုပ်ခန့် လာရောက်ငှားရမ်းဖတ်ရှုခဲ့ပါသည်။
- ◆ ကူပြင်ကျေးရွာရှိ ဒေသခံလူဦးရေ (၁၈၆)ဦးမှ ရွှေတောင်ဘိလပ် မြေစက်ရုံမှ ပံ့ပိုးကူညီပေးလျက်ရှိသော ထာဝရအလင်းတန်း စာကြည့်တိုက်သို့ စာအုပ်ရေ (၂၄၇)အုပ်ခန့် လာရောက်ငှားရမ်း ဖတ်ရှုခဲ့ပါသည်။
- ◆ ပြည်ညောင်နှင့်ကူပြင်ကျေးရွာတို့၏ စာကြည့်တိုက်များတွင် ကလေးငယ်များ အင်္ဂလိပ် စာစွမ်းရည်တိုးတက်စေရန် အင်္ဂလိပ်- မြန်မာနှစ်ဘာသာတွဲ စာအုပ်များ၊ ကျန်းမာရေးစာအုပ်များ၊ အထွေထွေဗဟုသုတစာအုပ်များ အသစ်ထပ်မံရောက်ရှိနေပါသဖြင့် လာရောက်လေ့လာနိုင်ကြောင်းနှင့်ငှားရမ်းနိုင်ကြောင်း အသိပေး ကြေညာခဲ့ပါသည်။
- ◆ ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက် (အပါချီဘိလပ်မြေစက်ရုံ)မှ ဒေသခံများ အလုပ်အကိုင်အခွင့်အလမ်းရရှိစေရန် လစ်လပ် နေရာခေါ်ဆိုမှုများ သတင်းထုတ်ပြန် ကြေညာခဲ့ပါသည်။
- ◆ ပြည်ညောင်ကျေးရွာရှိ ကျေးလက်ဆေးပေးခန်းတွင် လစဉ် ကလေးငယ်များနှင့် ကိုယ်ဝန်ခံမိခင်များ ကာကွယ်ဆေးသွားရောက် ထိုးနှံနိုင်ရန် အသိပေး ကြေညာပေးခဲ့ပါသည်။

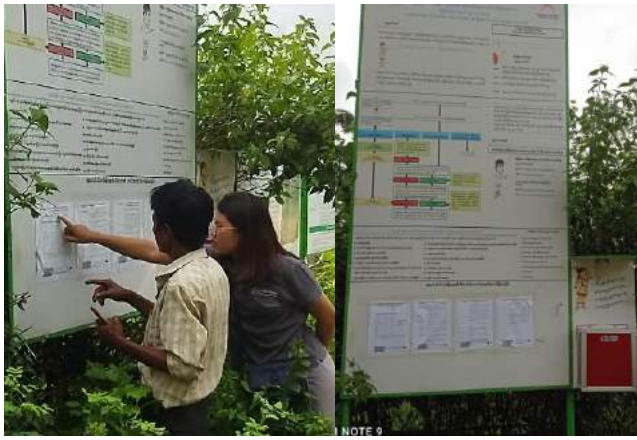


ပုံ - လစဉ် သောက်ရေသုံးရေးနှင့် အမှုန်များ၏ စစ်ဆေးမှု ရလဒ်များ အား ကြေညာခြင်း။

ပုံ-ကျေးရွာများရှိ ဒေသနေပြည်သူများထံသို့ အခမဲ့ ဆေးကုသ ပေးမည့်ရက်များအား အသိပေးကြေညာပေးခြင်း။



ပုံ - သတင်းအချက်အလက်ဆိုင်ရာဗဟိုဌာနနှင့်စာကြည့်တိုက်များ တွင် ဒေသဖွံ့ဖြိုး ရေး၊ ကျန်းမာရေး၊ လူမှုရေး၊ ဘာသာရေး ဆိုင်ရာဆောင်ရွက်ထားရှိမှု စာစဉ်များ ထားရှိပေးခြင်း။



ပုံ - မဒါန်းနှင့်ရေအေးကျေးရွာများတွင် အမှုန်နှင့် သုံးရေစစ်ဆေးမှု ရလဒ်များအား ကြေညာခြင်း။

- ◆ ပြည်ညောင်ကျေးရွာရှိ ဖြူစင်လူငယ်ပရဟိတ အသင်းအား အောက်စီဂျင်အိုး(၂၉)လုံး အောက်ဆီဂျင် ဖြည့်ပေးခြင်း။
- ◆ ကျောက်ပန်းတောင်းမြို့နယ်၊ နွယ်ရိုးဘုန်းကြီးကျောင်း တွင် ကွန်ကရစ်လမ်းခင်းရန် ဘီလပ်မြေအိတ်(၁၀၀) ကူညီပံ့ပိုး ပေးခြင်း။
- ◆ သာစည်မြို့နယ်၊ မြို့နယ်စည်ပင်သာယာရေးရုံးတွင် တံတားကြမ်းခင်းများပြုပြင်ရန် ဘီလပ်မြေ(၁၂၆) အိတ် ကူညီပံ့ပိုး ပေးခြင်း။
- ◆ ၂၀၂၃ခုနှစ်၊ စက်တင်ဘာလမှ ၂၀၂၆ခုနှစ်၊ ဩဂုတ်လ အထိ ပြည်ညောင်ကျေးရွာရှိ Information Center & Library အား ဒေသနေပြည်သူများ စာပေဗဟုသုတ လေ့လာနိုင်ရန်၊ စက်ရုံမှထုတ်ပြန်သည့် သတင်းအချက် အလက်များသိရှိစေရန်၊
- ◆ ကျန်းမာရေးစောင့်ရှောက်မှုများဆောင်ရွက်ပေးနိုင်ရန် နှင့်ဒေသနေကလေးငယ်များစာဖတ်စွမ်းရည်တိုးတက် စေရန် စာဖတ်ပွဲများကျင်းပနိုင်ရန်အတွက် မြေနေရာ ငှားရမ်းခြင်းအားထပ်တိုးဆောင်ရွက်ပေးခဲ့ပါသည်။
- ◆ ယင်းမာပင်ကျေးရွာ ဂရုဏာရှင် နာရေးကူညီမှုအသင်းကား များထားရန် ဆောက်လုပ်ထားသော ကားဂိုဒေါင်တွင် သမံ တလင်းခင်းရန် ဘီလပ်မြေ(၈၇)အိတ် ကူညီပံ့ပိုးပေးခြင်း။
- ◆ ပြည်ညောင်ကျေးရွာ၊ ရေရရှိရေးအတွက် ရေပိုက်နှင့်ဆက် စပ်ပစ္စည်းများ၊ လျှပ်စစ်မီးနှင့် ချိတ်ဆက်သည့် ပစ္စည်းများ ကူညီ ပံ့ပိုးပေးခြင်း။
- ◆ ၂၀၂၃ ခုနှစ်၊ ဇူလိုင်လမှ စက်တင်ဘာလအတွင်း ကူပြင် ကျေးရွာဒေသနေပြည်သူများ သတင်းအချက်အလက်နှင့် အသိ ပညာဗဟုသုတများ လေ့လာနိုင်စေရန် ရည်ရွယ်၍ ထာဝရ အလင်းတန်း စာကြည့်တိုက်တွင် အင်တာနက်- ဝိုင်ဖိုင် အခမဲ့ တပ်ဆင်ပေးခြင်းနှင့် ကုန်ကျစရိတ်အား လစဉ်ထောက်ပံ့ပေးခြင်း။



ပုံ - ပြည်ညောင်ကျေးရွာ ဖြူစင်လူငယ်ပရဟိတ လူမှုအဖွဲ့ အစည်းအတွက် အောက်စီဂျင်လှူဒါန်းခြင်း။



ပုံ - ယင်းမာပင်ကျေးရွာ ဂရုဏာရှင်နာရေးကူညီမှုအသင်းမှ ဘီလပ်မြေလှူဒါန်းခြင်းအတွက် ဂုဏ်ပြုမှတ်တမ်းလွှာ ပြန်လည်ပေးအပ်နေစဉ်။



ပုံ - နွယ်ရိုးဘုန်းကြီးကျောင်းသို့ ဘီလပ်မြေလှူဒါန်းခြင်း။

ဒေသခံများ၊ စက်ရုံဝန်ထမ်းများနှင့်မိသားစုဝင်များအား ကျန်းမာရေးစောင့်ရှောက်ပေးခြင်း

၂၀၂၃-ခုနှစ်၊ ဇူလိုင်လမှ စက်တင်ဘာလအတွင်း ရွှေတောင် ဘီလပ်မြေကုမ္ပဏီ၏ ဝန်ထမ်း(၆၂၆)ဦး၊ ဝန်ထမ်းများ၏ မိသားစုဝင် (၂၈၅)ဦးတို့နှင့် ဒေသခံ (၁၃၃)ဦးတို့အား ကျန်းမာရေးစောင့်ရှောက်မှုများ ဆောင်ရွက်ပေးခဲ့ပါသည်။



ပုံ - ကူပြင်ကျေးရွာ ဒေသခံများအား အခမဲ့ ကျန်းမာရေး စောင့်ရှောက်ပေးခြင်း။

ဒေသခံ ပြည်သူများနှင့် ဆွေးနွေးတိုင်ပင် ညှိနှိုင်းဆောင်ရွက် ခြင်း၊ သတင်းအချက်အလက်ဖြန့်ဝေခြင်း

၂၀၂၃-ခုနှစ်၊ ဇူလိုင်လမှ စက်တင်ဘာလအတွင်း ရွှေတောင် ဘီလပ်မြေကုမ္ပဏီ (အပါအဝင်ဘီလပ်မြေစက်ရုံ) မှရပ်ရွာလူထုအပါအဝင်ဆက်စပ်ပတ်သက်သည့်သူများ နှင့် အပြန်အလှန်ဆွေးနွေးတိုင်ပင်ခြင်း၊ ပူးပေါင်းဆောင်ရွက်ခြင်း၊ သတင်းအချက် အလက်များ ထုတ်ပြန်ခြင်းနှင့် မျှဝေပေးခြင်း အစရှိသည့်ဆောင်ရွက်ချက်များ စုစုပေါင်း (၂၅၂) ကြိမ် ဆောင်ရွက်ခဲ့ပါသည်။



ပုံ - ကူပြင်ကျေးရွာနေဒေသခံရပ်မိရပ်ဖများထံသို့ စက်ရုံမှ ထုတ်ပြန်သည့် ဒေသဖွံ့ဖြိုးရေး၊ ကျန်းမာရေး သတင်းလွှာများအား မျှဝေနေစဉ်။



ပုံ - ပြည်ညောင်ကျေးရွာဒေသခံများအား အခမဲ့ ကျန်းမာရေး စောင့်ရှောက် ပေးခြင်း။



ပုံ - ကူပြင်ကျေးရွာဒေသနေ ပြည်သူများအား အလုပ်အကိုင် အခွင့်အလမ်း ဖန်တီးပေးခြင်း။



ပုံ - ပြည်ညောင်ကျေးရွာဒေသနေပြည်သူရပ်မိရပ်ဖများထံသို့ စက်ရုံမှထုတ်ပြန်သည့်ဒေသဖွံ့ဖြိုးရေး၊ကျန်းမာရေးသတင်းလွှာ များအား မျှဝေနေစဉ်။

စက်ရုံအနီးရှိ ကျေးရွာများမှ ဒေသခံများ၏ အကြံပြုချက်၊ မကျေနပ်ချက်နှင့်တိုင်ကြားချက်များ ထည့်ဝင် ထားသည့် အကြံပြုစာတိုက်ပုံးများအား ဖွင့်ဖောက်ခြင်း

- ⇒ ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီ (အပါချီဘိလပ်မြေစက်ရုံ)မှ ၂၀၂၃-ခုနှစ်အတွင်း စက်ရုံအနီးရှိကျေးရွာများမှ ဒေသခံများ၏ မကျေနပ်ချက်များ၊ တိုင်ကြားချက်များနှင့် အကြံပြုချက်များရှိပါက ဆက်သွယ်ရန်နှင့်အကြံပြုစာတိုက်ပုံးများကို ကျေးရွာများနှင့် စက်ရုံအတွင်းတွင် ထားရှိပေးလျက်ရှိပါသည်။ ၎င်းအကြံပြုစာတိုက်ပုံးများအား လစဉ် တစ်လလျှင် (၄) ကြိမ် ဖွင့်ဖောက်ပေးလျက်ရှိပါသည်။ ၂၀၂၃-ခုနှစ် ဇူလိုင်လမှ စက်တင်ဘာလအထိ စုစုပေါင်း (၁၂)ကြိမ် အကြံပြုစာတိုက်ပုံးများ ဖွင့်ဖောက်ခဲ့ပါသည်။
- ⇒ ၂၀၂၃-ခုနှစ် ဇူလိုင်လမှ စက်တင်ဘာလအတွင်း ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီ(အပါချီဘိလပ်မြေစက်ရုံ)အနီးရှိ ကျေးရွာများတွင် ထားရှိပေးလျက်ရှိ သောစာတိုက်ပုံးများအား ဖွင့်ဖောက်ရာတွင် မကျေနပ်ချက်များ၊ အကြံပြုစာများနှင့် တိုင်ကြားစာများ လက်ခံရရှိခြင်း မရှိခဲ့ပါ။



ပြည်ညောင်ကျေးရွာ ရှိ သတင်းအချက်အလက်ဆိုင်ရာဗဟိုဌာနနှင့် စာကြည့်တိုက် တည်ရှိသောနေရာရှိ စာတိုက်ပုံးအားဖွင့်ဖောက်နေစဉ်



ပြည်ညောင်ကျေးရွာ သောက်ရေသန့်စက်တည်ရှိသောနေရာရှိ စာတိုက်ပုံးအားဖွင့်ဖောက်နေစဉ်



အုတ်ကျင်းကျေးရွာတွင် တည်ရှိသော စာတိုက်ပုံးအား ဖွင့်ဖောက်နေစဉ်



မုံပင်ကျေးရွာတွင် တည်ရှိသော စာတိုက်ပုံးအား ဖွင့်ဖောက်နေစဉ်



ပုပွားကုန်းကျေးရွာတွင် တည်ရှိသော စာတိုက်ပုံးအား ဖွင့်ဖောက်နေစဉ်



ရေပေါင်းဆုံကျေးရွာတွင် တည်ရှိသော စာတိုက်ပုံးအား ဖွင့်ဖောက်နေစဉ်



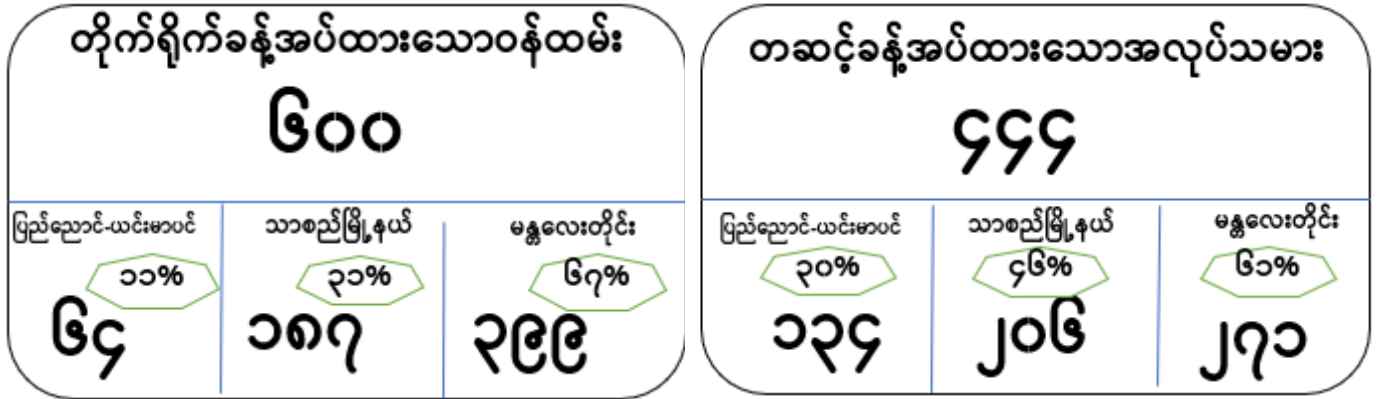
ကျောက်ဆောင်ကြီးကျွေကျေးရွာတွင် တည်ရှိသော စာတိုက်ပုံးအား ဖွင့်ဖောက်နေစဉ်



မဒါန်း၊ရေအေးကျေးရွာများတွင် တည်ရှိသော စာတိုက်ပုံးအား ဖွင့်ဖောက်နေစဉ်

အလုပ်အကိုင်အခွင့်အလမ်းနှင့်ပတ်သက်၍ သတင်းအချက်အလက်များကိုအသိပေး ထုတ်ပြန်ခြင်း

၂၀၂၃-ခုနှစ်၊ ဇူလိုင်လမှ စက်တင်ဘာလအတွင်း ရွှေတောင်ဘိလပ်မြေ ကုမ္ပဏီလီမိတက် (အပါချီဘိလပ်မြေစက်ရုံ) မှ ဒေသနေကျေးရွာများရှိ ပြည်သူလူထုများပါဝင်သည့် တိုက်ရိုက်ခန့်အပ်ထားသောဝန်ထမ်း (၆၀၀)ဦးနှင့် ကန်ထရိုက်တာ များမှတစ်ဆင့် ခန့်အပ်ထားသော အလုပ်သမား (၄၄၄)ဦးကို အလုပ်အကိုင် အခွင့်အလမ်းအနေဖြင့် ပေးအပ်ထားလျက် ရှိပါသည်။



ကျန်းမာရေးဆိုင်ရာဗဟုသုတများ၊ အလုပ်အကိုင် အခွင့်အလမ်းများနှင့် အခြားဗဟုသုတများ ဝေမျှပေးလျက်ရှိကြောင်းအသိပေးခြင်း။

ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက်မှ ကျန်းမာရေးဆိုင်ရာ ဗဟုသုတများ၊ အလုပ်အကိုင်အခွင့်အလမ်းများနှင့် အခြား ဗဟုသုတရရှိဖွယ်ကို ပြည်ညောင်ကျေးရွာရှိ သတင်းအချက် အလက်ဆိုင်ရာဗဟိုဌာနနှင့်စာကြည့်တိုက်၊ ကူပြင်ကျေးရွာ စာကြည့်တိုက်နှင့် ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက်၏ “ STC’s Information Release Viber Group “ မှ တစ်ဆင့် အလုပ်အကိုင်အခွင့်အလမ်းများ၊ ကျန်းမာရေးဆိုင် ရာဗဟုသုတများကို ဒေသခံများသိရှိစေရန်နှင့် ကြိုတင်ကာ ကွယ်နိုင်ရန် ရည်ရွယ်၍ သတင်း ထုတ်ပြန်ပေးလျက်ရှိပါ သည်။ ၎င်း Viber Group အား ဒေသခံများအနေဖြင့် စိတ်ပါဝင်စား၍ ဝင်ရောက်လိုပါက ဒေါ်ထက်ထက်အောင် (သတင်းအချက်အလက်ဆိုင်ရာ အလုပ်အမှုဆောင်) ဖုန်းနံပါတ် (သို့) Viber-09-255112642 သို့ ဆက်သွယ် ခံစမ်းနိုင်ပါသည်။

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ရွှေတောင်ဘိလပ်မြေကုမ္ပဏီလီမိတက်ရုံးချုပ်လိပ်စာ အမှတ်(၉၄)၊ ယူဘီစီစင်တာ၊ အဆောက်အအုံ (က) နတ်မောက်လမ်း၊ ဗိုလ်ချိုရပ်ကွက်၊ ရန်ကုန်မြို့။

အပါချီဘိလပ်မြေစက်ရုံလိပ်စာ ပြည်ညောင်ကျေးရွာ၊ သာစည်မြို့နယ်၊ မန္တလေးတိုင်းဒေသကြီး။

ယခုဖော်ပြပါ လူမှုရေးရာတာဝန်ရှိသူများထံ ယခုထုတ် ပြန်ထားသည့် သတင်းပြန်ကြားလွှာနှင့် ပတ်သက်၍ သိရှိ လိုသည်များကို ဆက်သွယ်မေးမြန်းနိုင်ပါသည်။

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