Environmental and Social Monitoring Third Report

Project Number: 48368-001
July 2018

MYA: Myingyan Natural Gas Power Project
Part 1

Prepared by Environ Myanmar Co Ltd.

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International Finance Corporation, Asian Development Bank, Asian Infrastructure Investment Bank and Multilateral Investment Guarantee Agency

Date

July 2018

Project Number

331000018-001

MYINGYAN CCPP

THIRD ENVIRONMENTAL AND SOCIAL MONITORING REPORT

RAMBOLL ENVIRON

MYINGYAN CCPP
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Made by	**Alan Fowler and Sharon Maharg**
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Issue 3	18 July 2018	J Ding and S Maharg	M Koh	J Ding	Final report issued to client

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GLOSSARY OF TERMS/ ACRONYMS

Acronym	Abbreviation
ADB	Asian Development Bank
ADB-ES	Asian Development Bank – Environmental Safeguards
ADB-IPS	Asian Development Bank – Indigenous Peoples Safeguards
ADB-IRS	Asian Development Bank – Involuntary Resettlement Safeguards
AIIB	Asian Infrastructure Investment Bank
AoI	Area of Influence
BCE	Bedok Construction & Engineering Company Limited
BOT	Build, Operate and Transfer
CBP	Concrete Batching Plant
CCGT	Combined Cycle Gas Turbine
CCPP	Combined Cycle Power Project
CDP	Community Development Plan
CEMS	Continuous Emissions Monitoring System
CGM	Community Grievance Mechanism
CHMP	Community Health Management Plan
COD	Commercial Operation Date
CP	Community Person
CPP	China Petroleum Pipeline Bureau
CRO	Community Relations Officer
DAI	Direct Area of Influence
ECC	Environmental Compliance Certificate
ECD	Environmental Conservation Department
E&S	Environmental and Social
ESAP	Environmental and Social Action Plan
EHS	Environmental, Health and Safety
ENVIRON	Environ Myanmar Co Ltd
EPC	Engineering, Procurement and Construction
EPGE	Electric Power Generation Enterprise
EPR	Emergency Preparedness & Response
EMS	Environmental Management System
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESAP	Environmental and Social Action Plan
GIIP	Good International Industry Practice
GOM	Government of Myanmar
GT	Gas Turbine
HRSG	Heat Recovery System Generator
HSE	Health, Safety and Environment
HSE-MS	Health, Safety and Environment Management System
HSSE	Health, Safety, Security and Environment
IECC	Installation, Erection, Construction and Commissioning
IESC	Independent Environmental and Social Consultant
IFC	International Finance Corporation
ILO	International Labour Organization
IMS	Integrated Management System
IPP	Independent Power Producer
JEM	Jurong Engineering (Myanmar) Ltd
LOTO	Lock Out Tag Out

Acronym	Abbreviation
LRPMP	Local Recruitment and Procurement Management Plan
LTI	Lost Time Injury
MDC	Min Dharma Co Ltd
MEPE	Myanmar Electric Power Enterprise
MIGA	Multilateral Investment Guarantee Agency
MOC	Management of Change
MOE	Ministry of Environment
MOEP	Ministry of Electric Power
MOGE	Myanmar Oil & Gas Enterprise
MOI	Ministry of Industry
MONREC	Ministry of Natural Resources and Environmental Conservation
MTKK	MTKK Electrical Services Company Limited
O&M	Operations and Maintenance
OHS	Occupational Health and Safety
PAP	Project-Affected Person
PCo	Project Company
PIIM	Project Induced In-Migration
PPA	Power Purchase Agreement
PPE	Personal Protective Equipment
PS	Performance Standard
ROSPA	Royal Society for the Prevention of Accidents
ROW	Right of Way
RWI	River Water Intake
SBS	ADB's Safeguard Policy Statement
SDCI	Sembcorp Design and Construction International
SEP	Stakeholder Engagement Plan
SIMOPS	Simultaneous Operations
SOP	Standard Operation Procedure
TSS	Total Suspended Solids
WAMP	Workers Accommodation Management Plan
WBG	World Bank Group

EXECUTIVE SUMMARY

In January 2018, Environ Myanmar Co., Ltd, (ENVIRON) acting in the role of Independent Environmental and Social Consultant (IESC), monitored the environmental and social performance of the Sembcorp Myingyan Power Company Limited (Sembcorp) Combined Cycle Power Plant (CCPP) project in Myingyan, Myanmar (the 'Project').

The January trip was the third of several IESC monitoring visits scheduled to occur at six-monthly intervals during the Project's construction phase. A two-person team, with assistance from Ramboll and ENVIRON representatives from Kuala Lumpur and Yangon, assessed the Project's management of environment and social matters, with a particular emphasis on the implementation of the Project Environmental and Social Action Plan; the adequacy of the Health, Safety, and Environment Management System; and the implementation of a suite of environmental and social management plans intended to address applicable Project standards, notably the IFC Performance Standards and ADB Safeguard Policy Statement.

Throughout the monitoring process, Sembcorp and its construction contractors cooperated fully and responded to all ENVIRON's requests. The monitoring visit covered a broad range of topics and Health, Safety, Environment and Social matters were found to be well managed for the most part. The project is generally compliant with the requirements of the Environmental and Social Action Plan (ESAP), however, the monitoring visit identified eight ESAP items that are work in progress.

In addition, 10 findings of Moderate significance were identified. There were no High significance findings.

Key moderate significance environmental findings are related to the discharge and disposal of sanitary wastewater including sewage, and groundwater monitoring. The sanitary wastewater issues will be resolved when the onsite wastewater treatment plant comes on line in the middle of the year (July/ August 2018).

A positive community service initiative undertaken by Sembcorp includes the recently constructed medical waste incinerator at the Myingyan Hospital. This will provide a safe means for the disposal of clinical and medical wastes which previously were burnt at the unlined municipal landfill.

Land acquisition and compensation: GoM acquired the lands required for the transmission line towers' footprints, and compensated farmers for the temporary disruption to their livelihood where they farm on government-owned land along the river water pipeline route, adopting national requirements. The resettlement framework required Sembcorp to bridge the gaps in compensation between the national requirements and SPS/IFC PS requirements.

The river water pipeline was buried and the land uses (mostly agriculture and two thirds squatters) will continue undisrupted post laying of the pipelines. Similarly, for the transmission lines and towers, there was no permanent land acquisition, except for lands under footprints of the transmission line towers and electric poles.

There are no permanent livelihood impacts due to the project. The temporary impacts have been addressed at full replacement costs, and the permanent impacts associated with the footprints of the transmission towers and electric poles as well have been compensated at full replacement cost. The gap in compensation standards for the electric poles have been met through additional non-cash compensation (in the form of fertilizer bags, one each per power pole). Livelihoods of project affected persons were not adversely impacted by the project as full replacement costs for loss of land, temporary and permanent, were made.

Sembcorp provided the following confirmation of the land procurement process for the elevated section of the pipeline towards the river: The compensation process for individuals affected by the elevated section of the pipeline is the responsibility of Electric Power Generation Enterprise (EPGE), in collaboration with the relevant Government Administrative Divisions (GAD), acting on behalf of the Government of Myanmar. EPGE had already identified 7 PAPs in the area and had drawn up a methodology whereby each individual is compensated MMK 10,000 per year for each piece of bridge pipe on their land for the next 3 years, the same as individuals affected by the electric T-poles (10,000 MMK per square metre affected per year). The PCo will then top-up the payments for the subsequent 20 years. This is to be completed before COD 2 and PCo is waiting to receive a formal letter from EPGE to begin the process of compensation. This finding is considered to be of Moderate significance. Land procurement is the responsibility of the Government and the PCo has taken initiatives to reach out to the Government to expedite the process.

As of 12th April 2017, all PAPs were compensated (at full replacement cost) for land and crop loss, with the exception of the PAPs impacted by the elevated section of the pipeline towards the river, described above. The compensation process for these PAPs will soon begin.

ENVIRON acknowledges that there was substantial improvement during this Third Monitoring Period in closing the environmental and social gaps noted in ENVIRON's Second Environmental and Social Monitoring Report (August 2017).

The findings presented in this report should be incorporated within Sembcorp's safeguards compliance and corrective action tracking system. The IESC will assess evidence of close-out of each issue in our next site visit, which is expected to be in July 2018.

1. INTRODUCTION

The consortium of Sembcorp Utilities Pte Ltd and MMID Utilities Pte Ltd ("the Sponsors") have been selected by the Ministry of Electric Power (MOEP) of the Government of Myanmar (GOM) as a private sector Independent Power Producer (IPP) to develop a 225 MW Combined Cycle Gas Turbine (CCGT) Power Plant (the "Project") on a Build, Operate and Transfer (BOT) basis in Myingyan Township, in the Mandalay region of Union Republic of Myanmar. A special purpose company, Sembcorp Myingyan Power Company Limited, ("Project Company" or "PCo") has been established in Myanmar and ultimately will be beneficially owned by the Sponsors for the sole purpose of developing and operating the Project.

The Project has two phases. The Commercial Operation Date (COD) of Open Cycle Mode is currently scheduled for the third week of February 2018 (delayed from the original target date of 21st December 2017) and the COD of Combined Cycle Mode is targeted for 20th May 2018.

A Power Purchase Agreement (PPA) has been signed for 22 years from Phase 1 COD with the Myanmar Electric Power Enterprise (MEPE), which is a government-owned utility enterprise responsible for power generation, transmission and system operations throughout Myanmar.

Environ Myanmar Co Ltd, (ENVIRON), which is a wholly owned subsidiary of Ramboll, was commissioned in 2016 by Sembcorp Myingyan Power Company Limited to act as the Lenders' Independent Environmental and Social Consultant (IESC) on the Project.

In fulfilling the role of Lenders' IESC, ENVIRON has a duty of care to a consortium of lenders (the 'Lenders') to the Project, including the International Finance Corporation (IFC), Asian Development Bank (ADB), Asian Infrastructure Investment Bank (AIIB), and the Multilateral Investment Guarantee Agency[1] (MIGA) which is a member of the World Bank Group (WBG).

This Third Environmental and Social Monitoring Report covers the period from July 2017 to January 2018 and provides our findings following a January 2018 monitoring visit to the Project and includes an assessment against Applicable Standards, specifically, the IFC Performance Standards (2012), applicable WBG Environmental, Health and Safety (EHS) Guidelines, and the ADB Safeguard Policy Statement 2009 and related ADB safeguard policies including ADB Social Protection Strategy, 2001, thereby identifying any environmental and social risks associated with the Project's realisation.

[1] Insurer for the lenders to Sembcorp Myingyan Power Company Limited.

2. SCOPE AND STRUCTURE OF THE REPORT

2.1 Scope and Methodology

This Third Environmental and Social Monitoring Report details the Project's compliance with the Applicable Standards listed in Section 2.2, and in doing so, presents the environmental and social risks associated with the Project. It has been prepared for the attention of Sembcorp, IFC, ADB, AIIB, MIGA, and other entities defined as relying parties[2]. It addresses the various components of the Project (as defined in Section 3, Project Description).

The report presents the findings of the monitoring exercise based on information gained through the following activities:

- a review of updated Project documentation, initially reviewed during the 4Q 2016 monitoring period;
- a review of ESAP implementation;
- a review of Health, Safety, Environment Management System (HSE-MS) documentation;
- interviews held with senior management representatives, HSE and community liaison staff within the Project Company and its two main Engineering, Procurement and Construction (EPC) contractors:
  - Sembcorp Design and Construction International (SDCI)
  - Jurong Engineering (Myanmar) Ltd (JEM);
- visual observations made during walkover inspection of Project facilities (including associated facilities);
- visits to two affected local communities along the river water supply pipeline (i.e., Hta Naung Tai and Aye Villages), and one affected local community in the vicinity of the T-Line towers (i.e., Sa Khar Village);
- a visit to the primary school in Nyaung Kan village where major upgrades to the teachers' quarters, school kitchen and classrooms are planned. The school upgrades will be financed by the Project under its CDP.
- visual observations made during visits to the three squatters' properties along the river water supply pipeline; and
- interviews with the following:
  - squatters and other Project-affected persons (PAPs) along the river water supply pipeline;
  - U Shu Maung and Daw Nan Wai, the Nyaung Kan village head and principal of the primary school, respectively;
  - Dr. Tun Win, the Myingyan District Hospital medical superintendent; and
  - U Kyaw Oo, the Myingyan District police chief.

The Monitoring Plan presented in Appendix 2 of this report details the scope and objectives of the monitoring visit, specifies the activities conducted and presents the work schedule for the site visit. The site visit was undertaken on 16th to 18th January 2018 by Alan Fowler and Sharon Maharg of Ramboll, on behalf of ENVIRON.

[2] Relying parties include other lenders.

A full list of Project documentation reviewed during preparation of this Third Environmental and Social Monitoring Report is provided in Appendix 3 (each item has a reference number, and, in the text of this report, specific named documents are provided with their reference numbers).

2.2 Applicable Standards

In accordance with ENVIRON's Terms of Reference, the Project was assessed against the following standards, guidelines, and project-specific legal requirements (the Applicable Standards):

- applicable laws and regulations of Myanmar, including specific environmental licence conditions (if any);
- international Law including conventions and treaties adopted by Myanmar and applicable to the Project;
- IFC Environmental and Social Performance Standards (1st January 2012) applicable to the project, including:
  - PS1: Assessment & Management of Environmental & Social Risks & Impacts;
  - PS2: Labour and Working Conditions;
  - PS3: Resource Efficiency and Pollution Prevention;
  - PS4: Community Health, Safety, and Security;
  - PS5: Land Acquisition and Involuntary Resettlement;
  - PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
  - PS8: Cultural Heritage;
- WBG Environmental, Health and Safety (EHS) Guidelines in force at the time of this agreement applicable to the Project, including General EHS Guidelines (2007), Thermal Power EHS Guidelines (2008), and Electricity Transmission and Distribution EHS Guidelines (2007); and
- ADB Safeguard Policy Statement 2009 and related ADB safeguard policies including ADB Social Protection Strategy, 2001.

IFC PS7 (Indigenous Peoples) was excluded from the scope of the monitoring assignment on the basis that the Environmental and Social Impact Assessment (ESIA) performed prior to financial close concluded that no Indigenous Peoples are affected by the Project.

The Project was also assessed against the requirements of the Environmental and Social Action Plan (ESAP) agreed between IFC and the Project Company (IFC Project # 36627).

2.3 Status of Environmental Licences and Permits

The Project has not yet been issued with an Environmental Compliance Certificate (ECC) by the Ministry of Natural Resources and Environmental Conservation (MONREC), but approval to commence construction was issued by the Ministry of Electric Power (MOEP). This situation is common in Myanmar due to a backlog of ESIAs awaiting approval by MONREC since the introduction of a new national ESIA standard in 2015.

A letter from the Ministry of Natural Resource and Environmental Conservation's Environmental Conservation Department (ECD), dated 17th March 2017, acknowledges that the Project ESIA report meets the requirements of the Myanmar Environmental Impact Procedure of 29th December 2015. It also highlights many commitments given in the ESIA report, which the ECD expects to be met.

2.4 Project Categorisation

The Lenders have determined that the Project is a Category A project under the IFC PSs and the following categorizations under the ADB Safeguard Policy Statement (2009):

- Environmental: Category A;
- Involuntary Resettlement: Category B; and
- Indigenous Peoples: Category C; and ENVIRON concurs with these assessments.

In accordance with IFC's and ADB's categorization requirements, the Project undertook a full ESIA, with public disclosure and a public consultation process. The initial ESIA was developed in September 2015 and two revisions were subsequently issued (November 2015 and August 2016).

2.5 Structure of the Report

Section 3, below, provides a description of the Project facilities, activities and timelines. Section 4 describes how different levels of significance are attributed to issues highlighted in the report, and Section 5 presents the findings of this environmental and social monitoring exercise. To avoid unnecessary repetition when commenting on compliance with IFC and ADB standards our findings have been structured around the Project's construction phase Environmental and Social Management Plan (ESMP), and additional topics not covered by the ESMP (i.e., Land Acquisition & Resettlement and certain topics under Labour & Working Conditions). The key issues identified against each topic are summarised in 'significance tables' for each Plan. Section 6 provides a commentary on the status of ESAP issues and Section 7 presents a summary of our key findings.

Within the report we have endeavoured to provide a balanced opinion, providing examples of good practice and identifying improvements made in closing gaps that were noted in ENVIRON's Second Environmental and Social Monitoring Report. However, due to the nature of a monitoring report, and the broad range of aspects covered, it does focus on the remaining gaps in compliance with the Applicable Standards and recommended actions to close these gaps.

2.6 Limitations

The IESC only considered activities relevant for the current monitoring period, and ongoing Project activities. Future activities will be the subject of forthcoming monitoring visits.

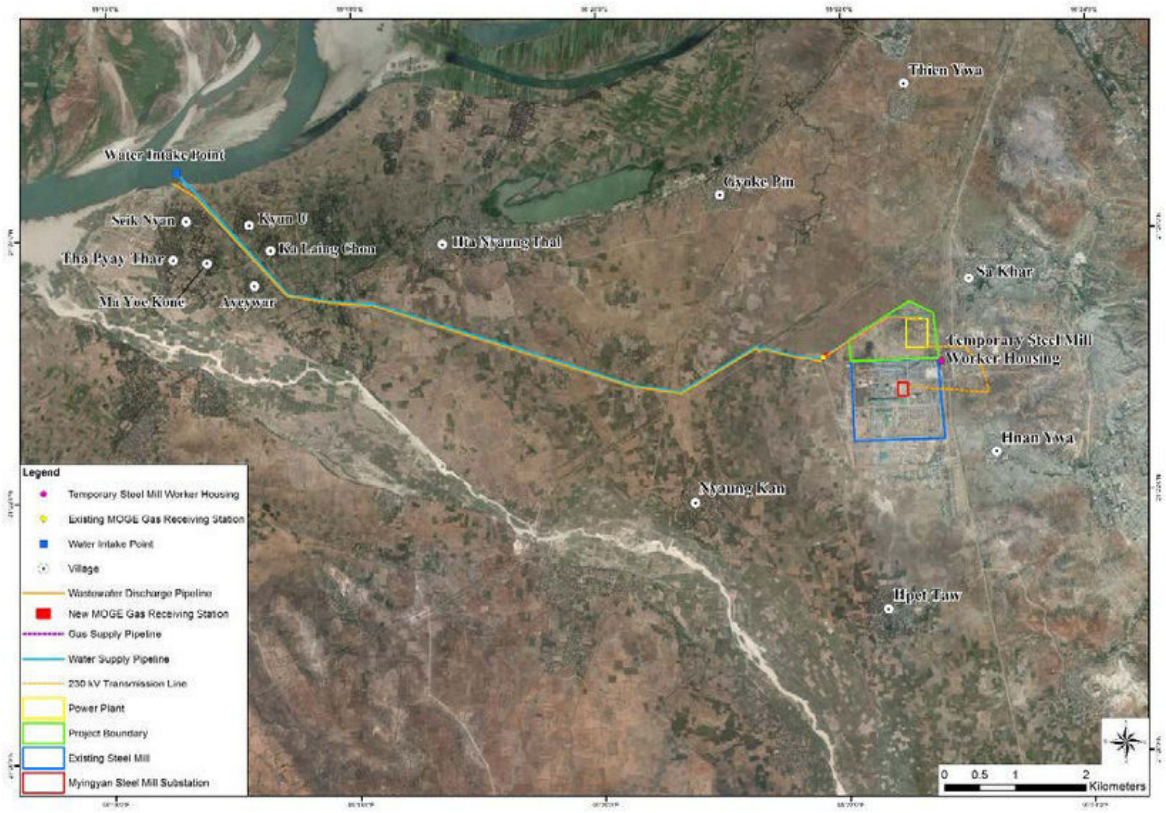
3. PROJECT DESCRIPTION

This section is intended to provide a brief description of the Project activities and current status. It provides a high-level summary of the Project based on the description in the Project's Final ESIA report and associated documentation, with emphasis on those elements of the Project that could give rise to environmental, social and health impacts.

3.1 Project Site

The Project site is located approximately 8 km South of the Myingyan Township, which is around 500 km North of Yangon and 90 km South-West of Mandalay, Myanmar. The 11.6 hectares predominately greenfield site is immediately North of an existing steel mill (Myingyan Steel Mill No. 1) owned by the Ministry of Industry (MOI), occupying a total area of 280 hectares.

Figure 1: Project Location



The Project Company is constructing a natural gas fired power plant. Project facilities include:

- A 225 MW CCGT power plant comprising two sets of Gas Turbines (GT) units, two sets of Heat Recovery System Generators (HRSG), one steam turbine generating unit with associated auxiliary equipment, switchyard area, cooling water system, demineralized water system, and a wastewater treatment facility.
- A 1.2 km 10" gas supply pipeline from a new gas receiving station (Photo 001) installed by Myanmar Oil & Gas Enterprise (MOGE) to supply gas to the Project site, the steel mill and a temporary Aggreko gas-fired power plant. The gas pipeline and the gas receiving station are now complete.
- A 2.5 km 230 kV overhead transmission line (with eight towers – four in the steel mill site and four in Sa Khar village) between the power plant and a substation in the adjacent steel mill (connection beyond the steel mill is GOM's responsibility). The

overhead line construction is complete and physical reinstatement has been completed on land around each of the towers.

- A buried 14 km 12" diameter river water supply pipeline linked to a water intake pumping station on the Ayeyerwady River, to the West. At the time of this environmental and social monitoring visit the pipeline was complete except for the final section at the river, which will be an elevated structure connected to a floating barge on which two electric pumps are located (Photo 002).
- An overhead line adjacent to the river water supply pipeline will supply power to the pumping station. At the time of the IESC inspection the poles had been erected and power cable stringing was complete.
- A buried 14 km 12" diameter wastewater discharge pipeline parallel to the river water supply pipeline, which will discharge around 75 – 100 m downstream of the water intake pipeline. Construction work on this pipeline has finished, but additional work is required where recent flooding has exposed the pipeline (Photo 003).

The river water supply and wastewater pipelines are both buried 2 m below the ground surface in a right of way (RoW) 2 m wide, and mostly aligned next to an existing irrigation canal. The RoW has been physically reinstated. Land users (farmers) were allowed to reinstate crops from July 2017, but large trees will not be permitted to avoid damage to the pipelines.

Heavy plant equipment was delivered to the site via barge along the Ayeyerwady River to a landing site known as the Nyaung Hla jetty, approximately 32 km south-west of the Project site, then by road. The landing site, which was reinforced for the Project, is no longer used. ENVIRON visited the landing site in November 2016 and July 2017 (Photo 004).

3.2 Associated Facilities

The Project's Associated Facility, as defined by IFC PS1, is limited tothe new gas receiving station that was installed by MOGE.

3.3 Socio-economic Context

As indicated in the ESIA (Revision no. 2, August 2016), the Stakeholder Engagement Plan (SEP), and in Figure 1, there are 13 villages located within the Project's area of influence (AoI). These are:

- Sa Khar village;
- Hnan Ywa village;
- Hpet Taw village;
- Nyaung Kan village;
- Gyoke Pin village;
- Thien Ywa village;
- Tha Pyay Thar village;
- Kyun U village;
- Ka Laing Chon village;
- Aye village;
- Seik Nyan village;
- Ma Yoe Kone village; and

- Hta Hnaung Taing.

3.4 Status of the Project at Time of the Third Monitoring Assignment

The project is currently in an advanced stage of construction. Open cycle power generation commenced in January 2018, with combined cycle operation scheduled to start in May 2018. By the end of 2017 engineering and procurement was 99.9% complete, and construction work was 88.05% complete, giving the overall project a value of 95.68% complete.

The two main EPC contractors are SDCI and JEM.

In January 2018, 1,139 people were working at the Project site (see Table 18 on the current project workforce). At the beginning of the operations phase the number of personnel at the facility will fall drastically. There will be two twelve-hour shifts, each with just 20 staff. No contractor personnel will be based at the operational power plant and there will no longer be the need for any workers' accommodation camps; the two remaining workers' accommodation camps will be closed prior to commencement of the operations phase.

4. SIGNIFICANCE ASSESSMENT

4.1 Review Findings

A summary of the review findings is presented in a significance table at the end of each sub-section in Section 5 of this report. For each item, we present:

- the topic/aspect;
- a description of the issue, for example deficiencies or omissions;
- the phase(s) to which an issue relates;
- identification of the standard(s) against which the issue has been identified;
- ENVIRON's recommendation, where applicable, to resolve/manage the deficiency;
- where applicable, updated status based on the January 2018 monitoring visit; and
- the significance on a three-point scale (based on the current status, using the criteria below).

4.2 Assessment of Significance

A ranking system has been used to indicate the relative significance of an issue identified during the monitoring visit. As well as highlighting the most important areas requiring attention, it can also be used to aid the tracking and rectification of specific items requiring improvement.

Identified issues have been placed into one of the following four categories:

Minor:	Minor non-compliance, risk or minor technical breach of Applicable Standards and commitments with no material, actual or likely potential: environmental or social consequences; or significant human injury or harm.
Moderate:	Moderate non-compliance or risk with actual or likely potential: localised and short-term environmental or social consequences; minor human injury or harm; or material short-term breach of Applicable Standards and commitments.
High:	Major non-compliance or risk with actual or likely potential: spatially extensive and/or long-term environmental or social consequences; serious human injury/death or harm; or material and extensive breach of Applicable Standards and commitments.
Issue Closed:	An issue that was raised in a previous monitoring visit, which has now been addressed to the satisfaction of the IESC.
Ongoing Activity:	An issue that was raised in a previous monitoring visit, which the Project is actively addressing to close a gap and meet the Applicable Standards.

Where time-critical recommendations for specific actions are made a timeframe linked to Construction/Operational phase milestones is indicated in the IESC recommendation column. Time critical issues can lead to a higher classification of significance.

Table 2: Example of the Summary Table Format

ID	Aspect	Issue Description	Phase[3]	Standard	IESC Recommendations	January 2018 Update	Significance
00	Storm water runoff monitoring	The ESAP requires *Company X monitors the quality of surface water run-off from facilities.* To date the Company has been unable to procure monitoring equipment – no monitoring has been undertaken.	Ops	WBG EHS Guidelines ADB ES Framework	*Company X shall expedite procurement of monitoring equipment with the support of senior management.*		**Moderate**

[3] Phases can include: construction; operations; decommissioning or; any combination of these phases.

5. ASSESSMENT OF ENVIRONMENTAL AND SOCIAL CONFORMANCE WITH PROJECT COMMITMENTS

5.1 Introduction

The results of the environmental and social monitoring are presented in section 5 of this report, structured around the 20 construction-phase environmental and social management plans, plus two additional sub-sections covering Land Acquisition & Resettlement and certain additional topics under Labour & Working Conditions. The management plans have been developed by the Project Company to implement the mitigation and monitoring measures recommended in the Project's ESIA and to meet Applicable Standards. After the overview of the Project's Environmental and Social Management System (ESMS) in section 5.2, the following sub-sections confirm compliance with and highlight any gaps identified against the management plans and against Applicable Standards.

Two management plans are directly managed by the Project Company:

- Community Development; and
- Stakeholder Engagement.

The remaining plans are implemented by the two main construction contractors (SDCI and JEM) with oversight by the Project Company (PCo).

5.2 Environmental and Social Management System

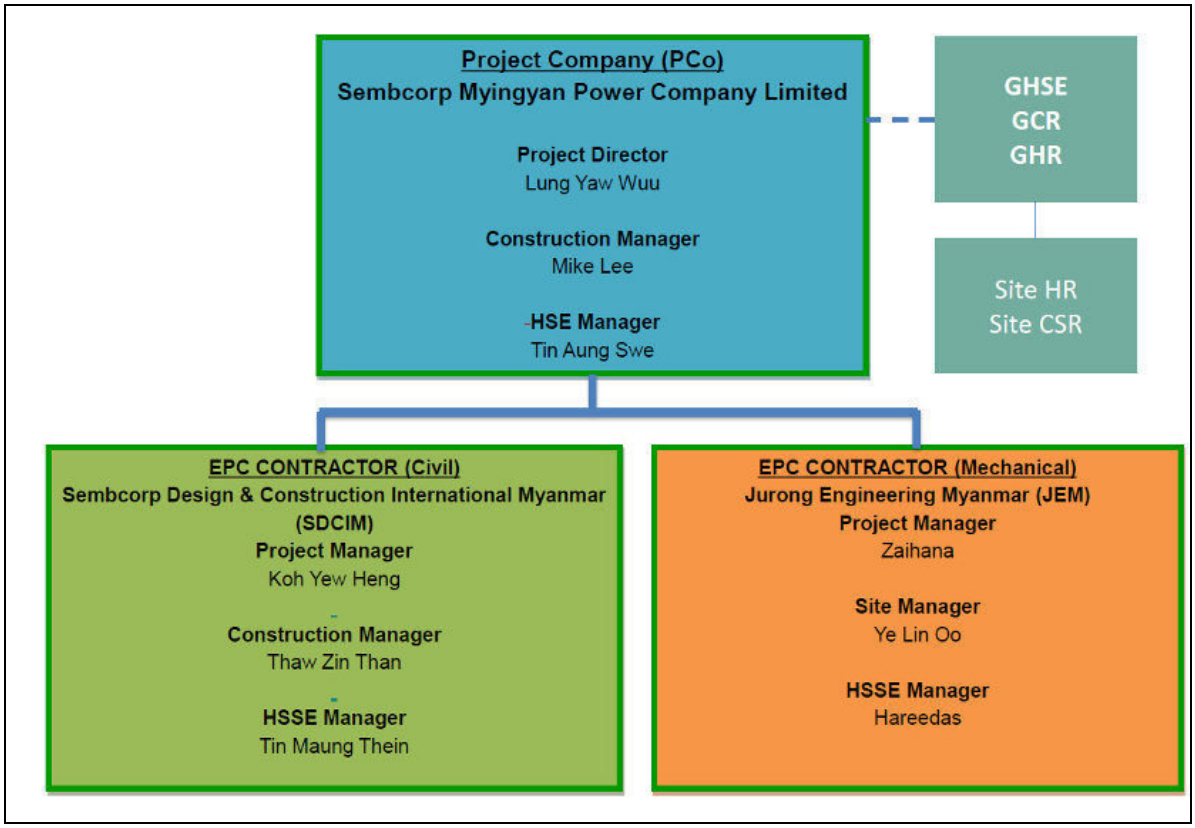
5.2.1 Construction Phase Environmental and Social Management System

The construction phase ESMP is implemented via the Project's HSE Management System (HSE-MS), which is based on Sembcorp's corporate HSSE-MS. The management system is described in the Project's Occupational Health and Safety Management Plan (see section 5.13 of this report) and in the Project HSE Plan (Rev 1, 1st April 2016). No major deficiencies or concerns have been identified in the HSE-MS.

Implementation of the Project's ESMP, which forms the main operational control element of the management system was reviewed during the July 2017 and January 2018 IESC monitoring visits. Section 5 of this report highlights several opportunities for improvement in the implementation of the ESMP and in the actual content of the 20 management plans that collectively form the ESMP. Since the issuance of the Second Environmental and Social Monitoring Report (August 2017), numerous improvements have been made to environmental plans covering air quality and dust management, plant and vehicle management and maintenance, traffic management, surface water management, soil and groundwater management, waste management, and oil and chemical spill contingencies; and to social plans covering stakeholder engagement, community development, community health management, and local recruitment and procurement, but some issues have not yet been addressed. Some of the management plans do not provide a full and accurate description of environmental and social measures employed by the project so the IESC had previously recommended a thorough review of the plans to remove irrelevant sections (e.g. descriptions of surface water management measures that are not used), add missing information (e.g. a full list of hazardous materials stored and wastes generated) and address other issues highlighted in this report. In view of the near completion of the construction and minor documentation issues, the review of the plans is of low significance. Efforts should now be made in completing the Operational phase ESMPs.

The Project's construction phase environmental and social organisation chart (see Figure 2, below) illustrates how roles and responsibilities have been assigned between the Project Company and the EPC Contractors.

Figure 2: Project Environmental and Social Organisation Chart



Audits and inspections are completed regularly. Based on a review of recent reports and discussions with site HSE personnel no major issues have been identified. Most findings relate to incorrect use of Personal Protective Equipment (PPE) which were addressed on the spot with the affected worker and reinforced in contractor workers meetings.

The Sembcorp Group HSE Incident Classification, Investigation and Reporting Procedure (G/014-5/GHSE), dated 4th December 2013 is used to document and track audit findings.

5.2.2 Contractor Management

Environmental and social requirements have been built into the major contracts between Sembcorp and its EPC contractors and major suppliers, namely:

- Installation, Erection, Construction and Commissioning (IECC) Agreement Contract No SEMBMIN-002, between Sembcorp Myingyan Power Company Limited (as Owner) and the SDCI / JEM joint venture (as Contractor); and
- Offshore Supply Agreement Contract No SEMBMIN-001, between Sembcorp Myingyan Power Company Limited (as Owner) and Jurong Engineering (Overseas) Pte Ltd and Sembcorp Project Engineering Company Pte Ltd (as Contractor).

Both contracts require the contractors to comply with applicable environmental, social and labour laws; IFC Performance Standards, WBG EHS Guidelines and any environmental, social and labour performance standards specified by any Financing Parties; the ESIA; and the Project HSE Plan. They state that in the event of conflict between standards the most stringent standard applies, and also require the contractors to develop an environmental management system (EMS) to ensure that relevant standards are met.

Both contracts require that sub-contracts are consistent with the terms and provisions of the IECC contract or the Offshore Supply Agreement.

While the environmental and social management provisions in the contracts are adequate to ensure that Applicable Standards are adhered to by the contractors and sub-contractors, as ENVIRON was informed, Sembcorp has not been able to review any of the sub-contracts to confirm that the terms and provisions of the IECC contract or the Offshore Supply Agreement have been included in the subcontracts. ENVIRON observed during its previous site visits that in some cases subcontractors were not adhering to the terms of the Project's contracts with contractors (i.e., sleeping quarters were sub-standard at all three workers' camps and were not in compliance with the Workers' Accommodation Management Plan).

Prior to financial close, the contractors were each presented with copies of all 20 management plans and had to sign acknowledging receipt and committing to ensuring that the plans' terms and provisions were carried forward in their contracts with subcontractors. In addition, the Project Company reported that their HSE-MS documents were provided to all sub-contractors, who signed declarations that they will comply with the provisions. These signed declarations were sighted by the IESC.

5.2.3 Operations Phase Environmental and Social Management

The project proponent has started preparing a series of plans that will together form the operations phase ESMP. The proposed plans are:

- Air Quality Management Plan
- Traffic Management Plan
- Noise and Vibration Management Plan
- Surface Water Management Plan
- Soil and Groundwater Management Plan
- Waste Management Plan
- Oil and Chemical Spill Management Plan
- Emergency Response Plan
- Stakeholder Engagement Plan
- Community Development Plan
- Community Health Management Plan
- Occupational Health and Safety Management Plan
- Security Management Plan
- Biodiversity Management Plan

The plans will be developed based on similar documents used in Sembcorp operations in Singapore and the Sembcorp Salalah Power and Water Company in Oman. It is recommended that these plans are carefully tailored to the specific needs of the Myingyan project, and that lessons learned from the construction phase ESMP are considered. The IESC understands that around 70 technical operations phase procedures have already been developed.

An HSE organisation chart was not available for the operations phase but it is understood that the Construction HSE Manager will continue in a similar role after construction ends. The IESC reviewed the job description for the operations phase HSSE Manager's role and concluded that it was comprehensive and fit-for-purpose.

The Operations and Maintenance (O&M) team is about to receive one-month of training by construction team staff on technical and HSE issues. In addition, O&M representatives will visit Sembcorp power plants in Jurong Island (Singapore) and Salalah (Oman).

The IESC visited the operations phase control room, and was satisfied that operators have access to adequate information to manage HSE issues (e.g. process safety parameters, emissions data from the CEMS system, and wastewater treatment plant data).

5.2.4 Simultaneous Operations

The Project has developed simultaneous operations (SIMOPS) protocols to manage HSE risks during the transition period from construction to operations, as documented in the Managing Simultaneous Works SOP (SOP-MYN-016, dated 3rd November 2017). The construction team will retain overall control of the Project site until COD2 in May 2018. However, construction personnel require a Permit to Work (PTW) to enter operational areas after COD1, and a Lock Out Tag Out (LOTO) system provides an additional level of control during the SIMOPS phase. During the site inspection, fences were noted around operations areas to restrict access (Photo 005).

Daily coordination meetings are held between construction and O&M teams to ensure that both teams are aware of current and planned activities.

Table 3: Summary of Findings - Environmental and Social Management System

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Operations phase ESMS	The ESMS for the Project's operations phase has not yet been developed.	Operations	• IFC PS1 • ADB-ES Principle 4	An operations phase ESMS should be developed for the project prior to commencement of operations. The ESMS should include an ESMP, which could include several individual plans if necessary. Lessons learned from the construction phase ESMP should be applied.	Work has started on developing 15 operations phase plans. These should be completed and reviewed by the Lenders prior to Project COD.	**Minor: Ongoing Activity**
002	SIMOPS	Simultaneous operations protocols for environmental and social issues have not yet been defined.	Operations	• IFC PS1 • ADB-ES Principle 7	Environmental and social procedures must be defined for the SIMOPS phase, when construction and operations activities will both occur at the same time.	SIMOPS protocols have been developed and implemented.	**Issue Closed**
003	ESMP	The construction phase ESMP contains a number of errors and omissions (outlined in section 5 of this report).	Construction	• IFC PS1 • ADB-ES Principle 7	Review the 20 management plans to remove irrelevant sections, add missing information and address other issues highlighted in this report.	Several of the plans have been revised, which has closed a number of issues. In view of the pending completion of construction and that the construction plan documentation issues	**Minor**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
						are minor, further review of the plans is now of marginal benefit. Efforts should now be made in completing the Operational phase ESMPs.	
004	Contractor Management	Sembcorp has not reviewed the environmental and social provisions in the sub-contracts.	Construction	• IFC PS1 • ADB-ES Principle 4	Sembcorp should review all sub-contracts by the end of August 2017 to ensure that they reflect the Project's environmental and social management standards.	Sembcorp has not confirmed the review of the environmental and social provisions in the sub-contracts, but reported that their HSE-MS documents were provided to all sub-contractors, who signed declarations that they will comply with the provisions. This issue has been closed; HSE risks are managed through monthly performance monitoring of contractors carried out by Sembcorp.	**Issue Closed**

5.3 Air Quality and Dust

Considerable effort has been put into managing air quality, including dust, during the Project's construction phase. The Air Quality and Dust Management Plan (SDC-HSSEC-SMP-001, Rev E, 24th January 2018) includes a number of management and mitigation measures designed to meet Applicable Standards and Good International Industry Practice (GIIP). The Project HSE Manager has provided awareness training on minimising air emissions and dust, and it was reported that performance in this area has improved.

5.3.1 Combustion Gases

All vehicles and equipment use premium diesel, which is the highest quality diesel available in Myanmar, to reduce sulphur emissions.

In accordance with the requirements of the air quality and dust management plan, each EPC contractor maintains its equipment in accordance with a planned preventive maintenance schedule. Each month a colour-coded sticker is affixed to each piece of plant and equipment to indicate that it has been maintained and is fit for use (Photo 006). This is one of the primary mechanisms used by the Project to minimise emissions to air, including combustion exhausts and fugitive emissions of volatile substances. Sembcorp periodically inspects the maintenance records of its EPC contractors.

5.3.2 Dust

Given the relatively dry climate dust is a challenge for the construction project. However, a number of effective measures have been taken to reduce dust generation, including:

- Onsite roads and some off-site roads are sprayed daily with water abstracted from onsite groundwater boreholes to suppress dust (Photo 007). This activity was witnessed by the IESC during the monitoring visit and appears to be effective. One water spraying truck is used every day, but two or three vehicles are used in very dry periods.
- Trucks used to carry construction materials are covered (Photo 008). No breaches of this Project commitment were observed during the site inspections.
- Hoppers and conveyor belts at the CBP are enclosed (Photo 009), and dust was not an issue when the CBP was inspected.
- The site is surrounded by 2 m high hoardings, which reduce the potential for dust to be blown to surrounding areas.
- A 15 km/hour speed limit is strictly enforced at the construction site, which reduces dust generation by vehicles.

Site management reported that soil stockpiles have been reduced in height to below 2 m, and compacted to reduce dust generation. However, during the site inspection, stockpiles of soil and sand up to 4 m high were noted (Photo 010).

Several non-conformities against the requirements of the management plan and opportunities for improvement were noted, in the July 2017 monitoring visit. The Air Quality and Dust Management Plan was recently revised to remove some unnecessary clauses, thereby addressing two issues. However, one technical non-conformance remains. The site has no vehicle wash nor tyre wash facilities. Site management reported that such facilities would be ineffective as the surrounding roads are not metalled. The IESC agrees with that conclusion but the management plan commits the Project to use such facilities. The management plan was revised again after the January 2018 site visit, but this requirement has not been removed.

5.3.3 Operations Phase Emissions Monitoring

Continuous Emissions Monitoring Systems (CEMS) supplied by Yokogawa, have been installed for both Gas Turbines and have recently been calibrated (Photo 011). They will provide continuous monitoring of NO_x, SO_2, CO_2, CO, O_2, dust and flow.

In addition, ambient air quality and noise will be monitored at monthly intervals for the first three months of operation, followed by quarterly monitoring. The ambient air quality monitoring will include 1-hour and 24-hour averaged NO_2 and SO_2, and 24-hour averaged PM, PM10 and PM2.5 at the following locations:

- one village house at Hnan Ywa village (ASR3);
- one village house at Sa Ka village (ASR4);
- one village house at Gyoke Pin village (ASR5); and
- one village house at Nyaung Kan village (ASR14).

During the operations phase, ambient air quality and noise will be monitored by a contractor called E-Guard Environmental Services.

Table 4: Summary of Findings - Air Quality and Dust

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Combustion gases	The CBP does not use grid electricity.	Construction	• Management Plan • IFC PS3 • General EHS Guidelines • ADB-ES Principle 9	Evaluate opportunities to use grid electricity for other activities to reduce reliance on diesel generators.	Only one concrete batching plant is currently in operation, which still uses a diesel generator. However, the requirement to use grid electricity has been removed from the latest version of the management plan (Rev E, dated 24 January 2018).	**Issue Closed**
002	Idling vehicles	Idling vehicles (some with no occupants) were noted in construction areas.	Construction	• Management Plan • IFC PS3 • General EHS Guidelines • ADB-ES Principle 9	Better enforcement of management plan requirements.	No idling vehicles were noted during the site inspection. Drivers have been reminded about this requirement.	**Issue Closed**
003	Vehicle wash facilities	The Project has no vehicle nor tyre wash facilities.	Construction	• Management Plan • IFC PS3 • ADB-ES Principle 9	The benefits of vehicle wash facilities are marginal, so it is recommended that the management plan is amended rather than to install tyre wash	ENVIRON agrees with the site's assessment that vehicle wash facilities would be of marginal benefit for dust control at the site.	**Minor**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
					facilities. ENVIRON agrees with the site's assessment that vehicle wash facilities would be of marginal benefit for dust control at the site.	This requirement has not been removed from the latest version of the management plan (Rev E, dated 24 January 2018), and should be removed to close issue. The access road from the steel mill entrance is currently being upgraded and paved for around 800 to 1,000 m.	
004	Soil stockpiles	Soil stockpiles are not covered nor sprayed with water.	Construction	• Management Plan • IFC PS3 • General EHS Guidelines • ADB-ES Principle 9	Implement the measures detailed in the management plan or amend management plan if a change can be justified.	This requirement has been removed from the latest version of the management plan (Rev E, dated 24 January 2018).	**Issue Closed**
005	Aggregate storage	Aggregate with a grain size of 5mm or less is not stored in enclosed areas.	Construction	• Management Plan • IFC PS3 • General EHS Guidelines • ADB-ES Principle 9	Implement the measures detailed in the management plan or amend management plan if a change can be justified.	This requirement has been removed from the latest version of the management plan (Rev E, dated 24 January 2018). Also, very little aggregate is currently stored on site as construction is almost complete. PCo confirmed that they	**Issue Closed**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
						removed enclosed storage as construction activities are coming to completion.	

5.4 Plant and Vehicle Management and Maintenance

The Plant and Vehicle Management and Maintenance Plan (SDC-HSSEC-SMP-002, Rev E, 24th January 2018) includes a number of management and mitigation measures designed to meet Applicable Standards and Good International Industry Practice (GIIP).

As noted in section 5.3.1, compliance with the machinery and equipment inspection and maintenance system, using colour coded labels, is good. During the site inspections no major issues were noted with the condition of plant and equipment.

Operators complete a daily checklist before operating plant and vehicles, and send the completed forms to their supervisors. Should any maintenance issues be identified the maintenance department is immediately notified.

It was reported that the EPC contractors audit their sub-contractors every six months and that the process includes an inspection of maintenance records.

No issues with the implementation of this management plan were identified in the January 2018 monitoring visit, and the issue raised in the previous monitoring visit has now been closed.

Table 5: Summary of Findings – Plant and Vehicle Maintenance and Management

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Diesel fuel quality	The management plan requires ultra-low sulphur diesel to be used, but the Project uses Premium Diesel.	Construction	• Management Plan • IFC PS3 • General EHS Guidelines • ADB-ES Principle 9	Check the specifications of Premium Diesel to determine whether it is low or ultra-low sulphur content.	This requirement has been removed from the latest version of the management plan (Rev E, dated 24th January 2018). The Project uses Premium Diesel, which is the best quality available in Myanmar.	**Issue Closed**

5.5 Traffic Management

5.5.1 General Traffic Management Issues

The Traffic Management Plan (SDC-HSSEC-SMP-003, Rev E, 24th January 2018) specifies measures to reduce adverse environmental, health & safety, and social impacts associated with Project-related traffic, including approved traffic routes (onsite and offsite), training and competency standards, speed limits and a requirement to wear seat belts.

EPCs and their sub-contractors completed a risk assessment of all activities that could have a potentially significant traffic-related impact, for example abnormally large loads which may require temporary road closures and removal of obstructions such as overhead lines. Sembcorp reviewed all such risk assessments.

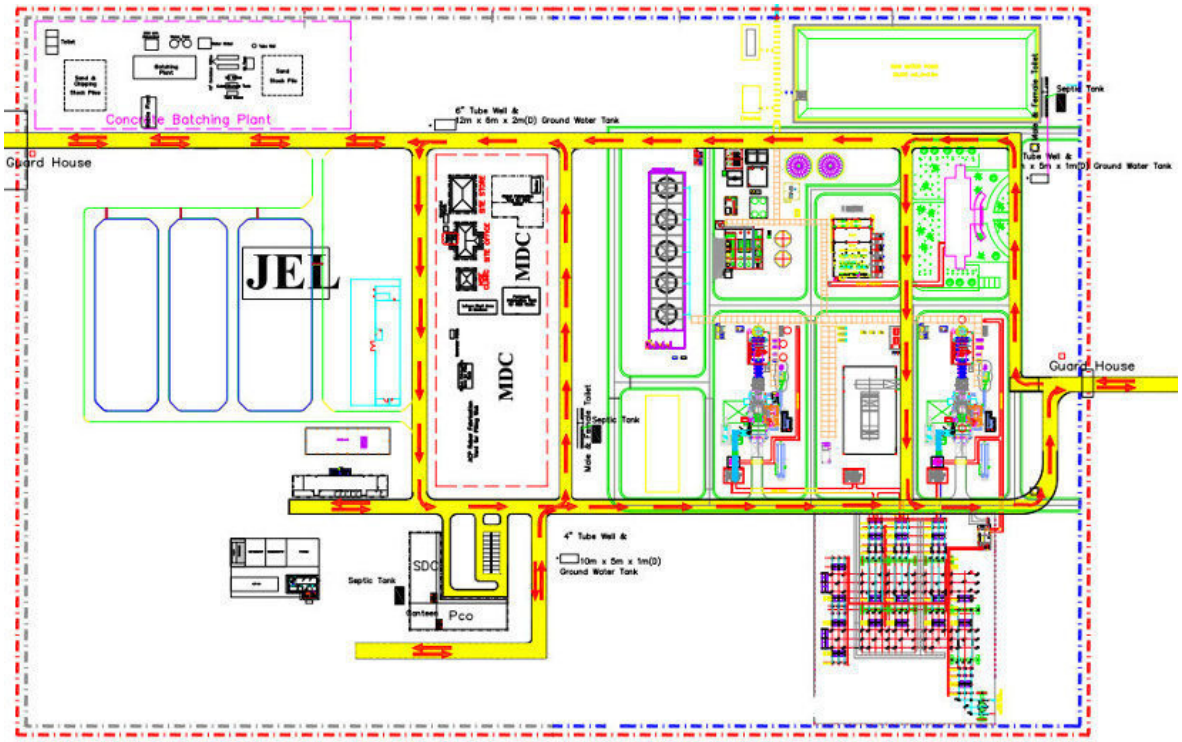
EPC contractors complete random breath tests of workers and security staff are trained to look for signs of intoxication in drivers.

Minor vehicle maintenance is carried out on site in designated workshops, but more significant repair work is performed in specialist off-site facilities.

5.5.2 Onsite Traffic Management

Figure 3 shows the internal traffic layout within the main construction site. A one-way system is used and there are several signs clearly displaying the speed limit of 15 km/hour. Security personnel at the entrance check that all vehicle occupants are wearing a seat belt before vehicles are allowed to enter.

Figure 3: Construction Site Traffic Layout



5.5.3 Offsite Traffic Management

Figure 4 shows the approved access routes to the Project site. Heavy loads were conveyed by barge to Nyaung Hla jetty, approximately 32 km South-West of the Project site, and then by road using a route which enters the construction site from the West, thereby avoiding impacts on nearby communities such as the small informal settlement near the main site entrance (Route 2 (ii)). Deliveries of heavy loads have now been completed.

Figure 4: Approved Site Access Routes

5.5.4 Deficiencies Against Traffic Management Plan and Applicable Standards

All but one issue raised in the July 2017 monitoring visit have been closed, largely via modifying the requirements of the Traffic Management Plan. The use of seatbelts was generally excellent, but as in the previous visit the IESC observed one case of a Project vehicle driving on public roads with the driver not wearing a seatbelt. It was reported that refresher training was provided after the second IESC monitoring visit and further training will be provided in response to the observation made in the current monitoring visit.

Table 6: Summary of Findings – Traffic Management

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Use of vehicle horns	Drivers do not sound their horn prior to reversing or driving from a stationary position.	Construction	• Management Plan • IFC PS2 • ADB-ES Principle 10	Enforce management plan requirements or revise management plan.	This requirement has been removed from the latest version of the management plan (Rev E, dated 24th January 2018).	**Issue Closed**
002	Reversing alarms	Many vehicles are fitted with reversing alarms but not with non-tonal alarms (i.e. white sound) as specified in the management plan.	Construction	• Management Plan • IFC PS3 • ADB-ES Principle 9	Ensure that all vehicles are fitted with reversing alarms, preferably non-tonal alarms to reverse potential noise nuisance.	This requirement has been removed from the latest version of the management plan (Rev E, dated 24th January 2018).	**Issue Closed**
003	Vehicle lights	Headlights and hazard lights are not turned on when vehicles drive within the construction site.	Construction	• Management Plan • IFC PS2 • ADB-ES Principle 10	Enforce management plan requirements.	This requirement has been removed from the latest version of the management plan (Rev E, dated 24th January 2018).	**Issue Closed**
004	Pedestrian walkways	No pedestrian walkways meeting Project specifications are used on site.	Construction	• Management Plan • IFC PS2 • ADB-ES Principle 10	Provide safe pedestrian access and egress on site, based on specifications in the management plan.	Safe pedestrian access and egress has been provided on site, based on specifications in the management plan.	**Issue Closed**
005	Seatbelts	One instance of seatbelts not being used in a Project vehicle was noted on a public road.	Construction	• Management Plan • IFC PS2	Refresher training on use of seatbelts on and off-site.	The same issue was noted during the January 2018 monitoring visit.	**Minor**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
				• ADB-ES Principle 10		Sembcorp has taken immediate action to counsel driver who will be required to undertake a safe driver refresher training.	

5.6 Noise and Vibration

The Noise and Vibration Management Plan (SDC-HSSEC-SMP-004, Rev D, 14th July 2016) details measures to mitigate and monitor noise and vibration as specified in the Project ESIA.

5.6.1 Mitigation Measures

Construction is limited to daytime (08.00 to 18.00 Monday to Friday and 08.00 to 13.00 on Saturdays) to reduce the potential for noise nuisance.

Piling work, which created significant noise and vibration, is complete. Noise insulation around equipment was generally good in all areas inspected and no particularly noisy processes were noted. Given the lack of sensitive nearby receptors noise and vibration are not a significant concern at this stage of the construction process. Workers were observed using hearing protection in relatively noisy areas.

The Second Environmental and Social Monitoring Report recommended that the site speed limit in the Noise and Vibration Management Plan be changed from 20 km/hr to 15 km/hr to be consistent with other Project management plans and the enforced speed limit at the site. Whilst this change was not made, drivers adhered to the speed limit of 15 km/hr which was also sign posted at the site. For clarity and consistency, the Noise and Vibration Management Plan should be amended to that of the enforced speed limit of 15 km/hr to close out this minor issue.

Noise Monitoring

Noise monitoring is conducted monthly by trained Project personnel at several locations within the CCPP construction site and at the six noise-sensitive receptors monitored in the ESIA.

The WBG General EHS Guidelines specify that daytime noise levels should not exceed 70 dBA in industrial areas or 55 dBA in residential areas.

Data for off-site noise monitoring of the six external locations (to the south and east of the site) for September and December 2017 were reviewed and found to be within acceptable levels. The average noise levels recorded in September are:

- NR1: Permanent Steel Mill Construction Worker Accommodation – 53.06 dBA;
- NR2: Monastery & Pagoda in Taung Tha Township – 48.88 dBA;
- NR3: Hnan Ywa Village, Taung Tha Township – 49.8 dBA;
- NR4: Sa Ka Village – 47.62 dBA;
- NR5: Steel Mill Worker Housing – 49.44 dBA; and
- NR6: Government Technical High School – 50.48 dBA.

There have been no complaints from nearby communities about noise in the six months prior to this monitoring visit.

5.7 Surface Water

The Surface Water Management Plan (SDC-HSSEC-SMP-005, Rev E, 24th January 2018) describes measures required to minimise adverse environmental impacts and specifies standards for water use, protection of surface and groundwater from contamination and the management of wastewater generated by the project. The plan includes several statements that are not relevant to this Project, such as references to silt traps on the surface runoff drainage system (there is no surface runoff system). The IESC recommended in the Second Environmental and Social Monitoring Report that the plan be reviewed and comprehensively updated to remove irrelevant information and accurately describe measures taken to manage water and wastewater during the Project's construction phase. Some improvements were made to the January 2018 revision of the plan, but other issues remain open as described in the following sub-sections, and summarized in Table 7..

5.7.1 Water Use

Construction Phase

Potable water is supplied to the construction sites and accommodation camps in plastic bottles and water coolers.

At the CCPP construction site, water for other purposes (e.g. washing, toilet flushing and dust suppression) is abstracted from three on-site boreholes, which together abstract around 700 m^3/month. Water analysis certificates from the Public Health Laboratory dated 4th May 2017 indicate that the water from each borehole is below the maximum permissible levels for a range of parameters, classifying it as chemically potable. No microbiological monitoring is conducted on the groundwater. The Second Environmental and Social Monitoring Report recommended that groundwater from each borehole be tested for pathogens and that the Project consider whether any control measures should be used to avoid exposure. No progress has been made on addressing this issue.

The volume of water abstracted is monitored but there has been no monitoring of associated draw down (a requirement of the Soil and Groundwater Management Plan).

Operations Phase

During the operations phase, 340 m^3/hour of water will be abstracted from the Ayeyerwady River, via two pumps on a floating river water intake (RWI) barge at Seik Yan (Photo 012), and pumped to a 20,000 m^3 capacity river water reservoir on site (Photo 013). Over 9,000 m^3 per day of water from the reservoir will be treated on-site to provide water for cooling tower, service water and a potable supply. The process includes the following main steps:

- Dosing with sodium hypochlorite, iron (III) chloride, sodium hydroxide and polymer before clarification.
- Clarified water passes through a sand filter, a multimedia filter, then a carbon filter.
- Water destined for the cooling tower also passes through a reverse osmosis process and a mixed bed exchanger.
- Sludge from the clarifier is dewatered in a sludge thickener and a filter press, which is expected to produce over 1,000 l/day of sludge. The sludge will be transferred from hoppers (Photo 014) to trucks for disposal. A disposal location has not yet been decided.

The water treatment infrastructure inspected during the January 2018 site visit appeared to be well constructed. Adequate secondary containment was seen around all storage tanks that will be used for water treatment chemicals.

5.7.2 Sanitary Wastewater Management in Construction Phase

The main sources of sanitary wastewater generated during the Project's construction phase are:

- sewage and handwash effluent from toilet blocks;
- wastewater from kitchens;
- wastewater from shower and handwashing facilities; and
- water from laundry facilities in worker accommodation camps.

It is understood that wastewater from toilets drains to cess pits (sealed containers with no treatment) and that other wastewater is discharged to the ground.

Sewage

An adequate number of toilets has been provided at the CCPP construction site, and no issues were noted in those that were inspected.

Section 3.1.2 of the Surface Water Management Plan states that "liquid effluents arising from construction activities will be treated to the standards shown in Table 1.3.1 of the IFC EHS Guidelines, General Guidelines, Water and Ambient Water Quality (2007)". Section 2.6.1 of the Project's ESIA report states that sewage will be treated on site or transferred to an offsite septic tank. The report also states that "no untreated sewage will be disposed of on land for the duration of the project lifecycle". However, no wastewater treatment is carried out either on-site or off-site, and no monitoring has been conducted of the quality of the wastewater removed from the cess pits.

Sanitary wastewater from cess pits at the construction site and worker accommodation camps is periodically removed by the Myingyan Municipality, using vacuum tankers (Photo 015). The contents of cess pits are taken to a municipal wastewater disposal site adjacent to the Myingyan cemetery and graveyard, approximately 7 km South of the centre of Myingyan (Figure 5). It was reported that sanitary wastewater is pumped into an unlined soil pit, measuring around 5 m x 4 m (Photo 016 and Figure 6), which appeared in the July 2017 IESC visit to contain rainwater rather than sewage. An area of stained ground was noted adjacent to the pit, where residues suggest that wastewater may be discharged onto the ground, where it flows downslope (Photo 017). The quality of wastewater disposed of at this location is not monitored, which breaches the requirements of the Surface Water Management Plan.

Figure 5: Location of Sanitary Wastewater Disposal Site and Landfill Site

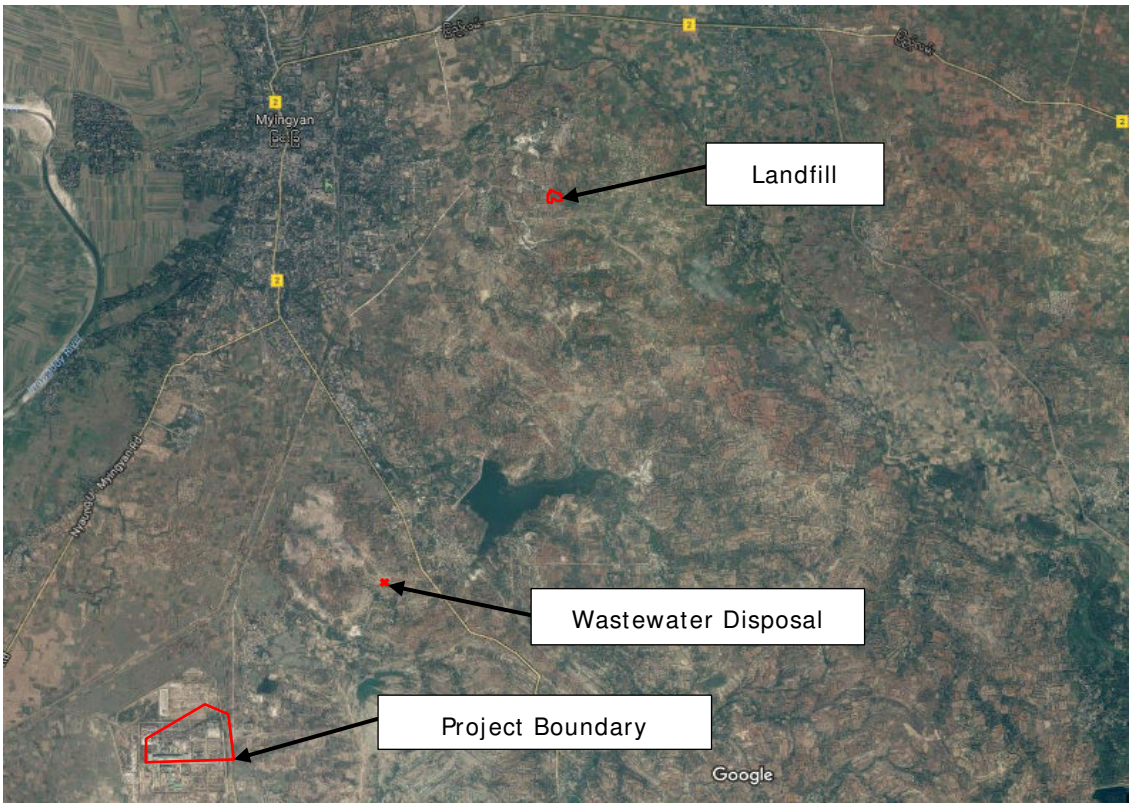


Figure 6: Sanitary Wastewater Disposal Site

No sensitive receptors were identified around the wastewater disposal site. The nearest building is the town's crematorium, 110 m to the South of the pit, and the nearest residential dwelling appears to be around 600 m to the North-East. The site is otherwise surrounded by agricultural land, and a wooded area immediately to the West, between the pit and the graveyard.

According to IFC PS3 and ADB's SPS SR1, the Project Company should avoid pollution through the application of GIIP. Neither the unlined pit nor the discharge onto soil are considered to represent GIIP for the disposal of untreated sanitary wastewater. Discussions with Project representatives indicated that this is the only wastewater disposal site in the Myingyan region. The IESC understands that a wastewater treatment plant is currently under construction that would be used to treat sanitary wastewaters from the site. The treatment plant will commence operations in tandem with the commencement of the power plant operations. .

The IESC recommends that the Project Company monitors the quality of wastewater disposed of at the municipal site to determine whether it meets the guidelines stated in the WBG General EHS Guidelines.

Other Sources of Sanitary Wastewater

The plan requires wastewater collected from kitchens to pass through a grease trap before discharge to sanitary sewer. No grease traps are installed at the kitchen visited in the JEM accommodation camp and the wastewater flows through a course screen (approximately 5 mm mesh) before discharge to a nearby open ditch (Photo 018).

5.7.3 Hydrotesting Wastewater

River water was used in the second half of 2017 for hydro-testing of the gas, water and wastewater pipelines prior to commissioning. After the leak tests were completed the water was discharged to the river water pond in the power plant site or to the Ayeyerwady River. No chemicals (e.g. biocide or corrosion inhibitor) were added to the hydrotest water and no treatment was carried out prior to discharge. Laboratory analysis of a sample taken on 3rd October 2017 shows that the discharged water was chemically potable as it met the chemical limits prescribed by the World Health Organisation for drinking water.

In addition, demineralised water was used to pressure test the boiler. Following that procedure, the water drained to the river water reservoir.

5.7.4 Surface Water Runoff

Surface water disposal is not a significant issue at the CCPP construction site. It was reported that surface water is channelled into several pits within the site, from where it percolates into the ground or evaporates.

It is understood that perimeter ditches around the site are designed to stop surface runoff from flowing onto, rather than from the construction site.

The IESC site visit was conducted during a period of dry weather, and no issues were observed with surface water runoff.

Two non-conformances against the requirements of the Surface Water Management Plan remain from the Second Environmental and Social Monitoring Report:

- The plan requires open stockpiles or construction materials and construction wastes to be covered with tarpaulin or similar fabric during rainstorms. No covers were seen during the monitoring visit and it was reported that covers are not used.
- Surface runoff is not directed to silt removal facilities. However, this is not an issue as surface runoff is contained on site.

5.7.5 Wastewater Treatment in the Operations Phase

The main wastewater streams during the operations phase will be:

- 80 m^3/hour from cooling tower blowdown.
- 35 m^3/hour from the oil water interceptor (intermittent source i.e. only when raining).
- 1.0 m^3/hour from the neutralising pit (part of the water treatment process), after treatment.
- 0.1 m^3/hour from the sewage treatment plant (Photo 019). Sewage will be treated using methanol (for denitrification), sodium hydroxide (for pH control), ferric sulphate (a coagulant) and chlorine (for disinfection).

Each of these wastewater streams will be collected in the 500 m^3 capacity central monitoring basin (Photo 020). It is anticipated that 80 to 116 m^3/hour of treated wastewater will be discharged from the central monitoring basin to the Ayeyerwady River, via a pipe 1 m above the river bed, and 80 m downstream of the RWI pump barge. The Project has committed to meeting the following discharge limits, which are based on the WBG EHS Guidelines for Thermal Power Plants:

pH	6-9
Total Suspended Solids (TSS)	50 mg/l
Oil and Grease	10 mg/l
Total Residual Chlorine	0.2 mg/l
Chromium – Total (Cr)	0.5 mg/l
Copper (Cu)	0.5 mg/l
Iron (Fe)	1.0 mg/l
Zinc (Zn)	1.0 mg/l
Lead (Pb)	0.5 mg/l
Cadmium (Cd)	0.1 mg/l
Mercury (Hg)	0.005 mg/l
Arsenic (As)	0.5 mg/l
Temperature	Not to exceed 3°C of the RWI ambient temperature

The quality of wastewater will be monitored during the operations phase by a contractor called E-Guard Environmental Services.

The wastewater treatment systems inspected during the January 2018 site visit appeared to be well constructed. Adequate secondary containment was seen around all storage tanks that will be used for treatment chemicals.

A concrete hardstanding area has recently been constructed outside the Administration Building, which will be the car park during the operations phase (Photo 021). Runoff, which could potentially be contaminated with oil or fuel from vehicles could contaminate surface water drainage. It is recommended that Sembcorp considers installing an oil interceptor on the drainage system serving this area.

5.7.6 Ambient Water Quality Monitoring

As detailed in the Second Environmental and Social Monitoring Report, Section 5 of the Surface Water Management Plan requires six-monthly monitoring of surface water quality at two locations on the Ayeyerwady River (upstream and downstream of the jetty) and monthly monitoring of water quality at the jetty for the duration of its use by the Project. Analysis reports prepared by

Iso Tech Laboratory and SGS in February 2017 were inspected by the IESC. The reports do not make it clear whether the sample was taken upstream or downstream of the jetty, but only one sample was taken. Analysis of pH, turbidity, suspended solids, dissolved solids, fluoride, lead, arsenic, cyanide, zinc, copper, silica, dissolved oxygen, and oil & grease did not highlight any concerns. The list of parameters monitored does not match those specified in section 5 of the management plan. Key parameters not analysed include Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), total nitrogen, total phosphorus, total coliform bacteria, and heavy metals (aside from lead, zinc and copper although types of metals were not defined in list). No action is required as the jetty is no longer used by the Project.

The IESC inspected the jetty area in July 2017. No visible evidence of soil or water contamination was found.

5.7.7 Other Observations

Section 3.1.2 of the Surface Water Management Plan requires the Project to carry out contaminated land assessments to identify legacy contaminated areas. No such assessments have been carried out but Project HSE management representatives reported that no evidence of contamination was detected during site excavations. Based on the limited industrial development in the area, contamination at the site from industrial activities is considered low. Other potential site contamination sources could be from illegal dumping of wastes and from application of chemicals for agriculture. As noted, no visual evidence of wastes was detected during site excavations, and the area where the power plant is located was not heavily used for agricultural purposes. No further action is recommended by the IESC.

Table 7: Summary of Findings – Surface Water

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Content of management plan	The plan includes a number of statements that are not relevant to this Project, such as references to silt traps on the surface runoff drainage system (there is no surface runoff system).	Construction	• Management Plan	The IESC recommends that the plan is reviewed and comprehensively updated to remove irrelevant information and accurately describe measures taken to manage water and wastewater during the Project's construction phase.	Some revisions have been made to the Surface Water Management Plan since the second IESC monitoring visit. The reference to silt traps has been removed but the plan still refers to the use of septic tanks (the project actually uses cess pits rather than septic tanks).	**Minor**
002	Sanitary wastewater treatment	Sanitary wastewater is not properly treated before off-site disposal. Sewage is collected in cess pits (sealed tanks with no treatment) and other wastewater is discharged to the environment untreated. Wastewater from the kitchen at the JEM accommodation camp is discharged directly to the ground, without passing through a grease trap or any other form of treatment.	Construction	• ESIA report • Surface Water and Soil & Groundwater Management Plans • IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	All sanitary wastewater should be treated to meet Applicable Standards, either on site or off-site, before its disposal.	Sanitary wastewaters will be routed to the onsite wastewater treatment plant under construction by mid-year. The issue however remains unchanged since the 2017 IESC monitoring visit. With the offsite disposal of sewage to the Myingyan municipal landfill, the issue of sanitary wastewater disposal at the site is revised from high to moderate significance.	**Moderate**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
003	Sanitary wastewater monitoring	The quality of sanitary wastewater is not monitored before disposal.	Construction	• IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Sanitary wastewater should be monitored before disposal to ensure it meets Applicable Standards.	There has been no change in this issue since the July 2017 IESC monitoring visit. As sewage is collected for offsite disposal to a municipal landfill, there is marginal benefit in monitoring the quality of this waste stream although it is not in accordance with international good practices. Wastewater from kitchens and washing facilities continue to be discharged to ground. The impact of intermittent kitchen and washwater discharges to the immediate environment at the site is considered low. These wastewaters will be routed to the onsite sewage treatment plant under construction by mid-year where treated effluent will be monitored before discharge.	**Moderate**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
004	Sanitary wastewater disposal	The off-site wastewater disposal site does not meet lender standards and represents an environmental risk.	Construction	• IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Evaluate options for on-site or off-site treatment of sanitary wastewater before it is disposed of.	Sembcorp reviewed disposal options and the disposal site (landfill) operated by the Myingyan Municipality was the only available facility in the area. While not an ideal option, an assessment of potential impacts revealed that there are no sensitive receptors in close proximity and the disposal site is a municipal landfill where all types of wastes are disposed to.	**Moderate**
005	Hydrotest wastewater	Wastewater will be generated by hydrotesting of pipelines during pre-commissioning, but plans have not yet been developed for its disposal.	Construction	• IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Develop plans for sourcing water for hydrotesting and disposal of the water after the hydrotesting. Consideration may need to be given to treatment if chemical additives (e.g. corrosion inhibitor or biocide) are used in the process.	Hydrotesting was completed in the second half of 2017 using river water. No chemicals were added, and analysis of water before discharge to the Ayeyerwady River demonstrated that it was chemically potable.	**Issue Closed**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
006	Bund water	Water from bunded areas does not pass through an oil interceptor nor a silt trap.	Construction	• Management Plan • IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Water drained from bunded areas should be tested before disposal, and storage tanks should be covered to avoid rainwater collecting in bunds.	The requirement for water from bunded areas to pass through an oil interceptor or a silt trap has been removed from the January 2018 version of the Surface Water Management Plan. There have also been improvements to bunding around storage tanks (i.e. addition of a roof to avoid rainwater collecting in bunded areas).	**Issue Closed**
007	Stockpile covers	Stockpiles of construction materials and wastes are not covered during rainstorms.	Construction	• Management Plan • IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	The IESC does not consider this to be a practical mitigation measure so recommends its removal from the management plan.	The Surface Water Management Plan has not been revised to remove this requirement, and it was reported that stockpiles are not covered during rainstorms.	**Minor**
008	Wheel cleaning	Wheel washing facilities are not used.	Construction	• Management Plan	The IESC does not consider this to be a practical mitigation measure so recommends its removal from the management plan.	The requirement for wheel wash facilities has been removed from the January 2018 version of the Surface Water Management Plan.	**Issue Closed**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
009	Silt traps	Surface runoff is not directed to silt removal facilities.	Construction	• Management Plan	The IESC does not consider this to be a practical mitigation measure so recommends its removal from the management plan.	The Surface Water Management Plan has not been revised to remove this requirement.	**Minor**
010	Car park runoff	A concrete hardstanding area has recently been constructed outside the Administration Building, which will be the car park during the operations phase. Runoff, which could potentially be contaminated with oil or fuel from vehicles could contaminate surface water drainage.	Operations	• IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	-	It is recommended that Sembcorp consider installing an oil interceptor on the drainage system serving this area.	**Minor**

5.8 Soil and Groundwater

The Soil and Groundwater Management Plan (SDC-HSSEC-SMP-006, Rev E, 24th January 2018) details a range of measures to prevent contamination of soil and groundwater. The management plan was recently updated to address some issues raised in the July 2017 IESC monitoring visit.

The Second Environmental and Social Monitoring Report identified several deficiencies in the storage of materials that could lead to soil and groundwater contamination, including inadequate bund size, cracked bund walls, drainage hole which compromised bund integrity, and lack of rain covers. These have largely been addressed, and the IESC observed a dramatic improvement in the January 2018 site inspections.

The following two issues raised in the Second Environmental and Social Monitoring Report have not yet been addressed:

- No spill kits were seen during the site visit other than a bucket of sand in a chemical storage area. The management plan requires spill kits on site and in vehicles. It is recommended that the requirement for all vehicles to have a spill kit is removed from the management plan as it is impractical. However, two oil spill kits have been ordered for the operations phase (they will be stored adjacent to the emergency generator).
- Soil stockpiles are not covered with polyethylene sheets at the end of each day to prevent loss of soil via wind or runoff. It is recommended that this requirement is removed from the management plan as it is impractical.

In addition, as noted in Section 5.7.1, the volume of groundwater abstracted is monitored for chemical but not microbiological parameters, and there has been no monitoring of associated draw down (a requirement of the Soil and Groundwater Management Plan).

The January 2018 IESC monitoring inspection identified the following opportunities for improvement in the storage of chemicals and oils in drums:

- Ten 205 litre drums of sodium hypochlorite (scale inhibitor) were observed near the water treatment plant with no secondary containment (Photo 022). It was reported that they were temporarily stored at that location, before their contents were transferred to two above ground storage tanks.
- In the JEM construction yard two 205 litre drums of oil were seen on a wooden pallet with no drip trays (Photo 023). One was unlabelled. However, both had covers to prevent rainwater accumulation, which could rust the drums (this is an example of good practice).
- Around 40 to 50 drums of sodium hypochlorite, lube oil, methanol, detergent and ammonium hydroxide were noted in the JEM construction yard without secondary containment (Photo 024). They were stored on soil or on wooden surfaces that were in a poor condition. Some were covered with tarpaulin, but most were unprotected from the weather. Several drums were disformed, which is likely to be a result of exposure to the sun (Photo 025). Some of the drums were unlabelled.

A roof over a diesel generator was observed to be non-watertight during the January 2018 site inspection (Photo 026). However, the roof was swiftly replaced after the monitoring visit (Photo 027).

Table 8: Summary of Findings – Soil and Groundwater

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Surface Water Management Plan	The Soil and Groundwater Management Plan contains a number of inaccuracies and does not reflect the actual situation at the construction site.	Construction	• Management Plan	The Soil and Groundwater Management Plan should be revised to accurately describe measures taken to protect soil and groundwater. Project commitments should be retained but descriptions of non-existent processes and infrastructure should be removed.	The management plan was updated in January 2018 but still contains references to procedures that are not followed. It is recommended that descriptions of non-existent processes and infrastructure be removed from the plan.	**Minor**
002	Bund deficiencies	Several bunds around diesel storage tanks have deficiencies, including inadequate capacity, structural damage or open drains.	Construction	• Management Plan • IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Repair all bunds to ensure that they provide effective secondary containment. If valves are fitted to drainage pipes they should be kept closed until needed. Future site inspections should check on these issues.	Repairs to bunds were completed soon after the second IESC monitoring visit, including repairing cracked walls, installing covers to prevent rainwater accumulation, sealing valves and general housekeeping improvements.	**Issue Closed**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
003	Drip tray	A portable generator was seen without a drip tray.	Construction	• Management Plan • IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Remind EPC contractors and their sub-contractors that all mobile equipment that contains fuel should have a drip tray.	Contractors have been reminded of the need for drip trays, and a tray was installed immediately after this issue was raised in the July 2017 IESC monitoring visit.	**Issue Closed**
004	Spill kits	No spill kits are available at the construction site nor on vehicles.	Construction	• Management Plan • IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Provide spill kits at all locations where fuel and chemicals are stored and in vehicles used to carry hazardous liquids.	No spill kits were procured for the construction phase, but two have recently been ordered for the operations phase.	**Issue Closed**
005	Groundwater monitoring	Groundwater is only monitored for chemical parameters and volume, but draw down is not monitored.	Construction and operation	• Management Plan • IFC PS1 • WBG EHS Guidelines • ADB-ES Principle 7	Groundwater abstracted at the CCPP site should be tested for pathogens. Should elevated levels be detected the Project should implement measures to reduce exposure pathways. In addition, monitoring of draw down should be undertaken to assess the impact of abstraction on the water table.	No action has been taken to address these issues since the second IESC monitoring visit.	**Moderate**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
006	Drum storage	During the January 2018 visit a number of drums of chemicals and oils were noted with no secondary containment, no labels or in a poor condition, in particular in the JEM construction yard.	Construction	• Management Plan • IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	N/A	The project proponent should ensure that all drums of chemicals and oils are in good condition, clearly labelled and have secondary containment (e.g. drip trays).	**Minor**

5.9 Biodiversity

No non-conformities were found against the requirements of the Biodiversity Management Plan (SDC-HSSEC-SMP-007, Rev D, 20th July 2016).

Table 9: Summary of Findings – Biodiversity

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Biological reinstatement	The Project only carries out physical reinstatement of excavated areas.	Construction	• IFC PS6 • ADB-ES Principle 4	It is recommended that biological reinstatement is also carried out unless the landowner objects.	Only physical reinstatement has been completed in most areas, but trees and shrubs have reportedly been planted in some locations. Landowners have not raised any concerns.	**Issue Closed**

5.10 Waste Management

The Waste (Hazardous and Non-Hazardous) Management Plan (SDC-HSSEC-SMP-008, Rev E, 24th January 2018) describes processes and procedures for on-site waste management, and has recently been revised to describe requirements for off-site disposal.

5.10.1 On-site Waste Management

Clearly labelled and colour-coded bins were observed on site, facilitating collection of recyclable materials. Waste storage areas are generally of an adequate standard, and the two waste storage opportunities for improvement identified in the Second Environmental and Social Monitoring Report have been rectified.

Section 6 of the waste management plan (monitoring) has not been fully implemented. The main deficiencies are:

- monthly waste records on waste generation and recycling rates are not kept; and
- waste minimisation targets have not been established.

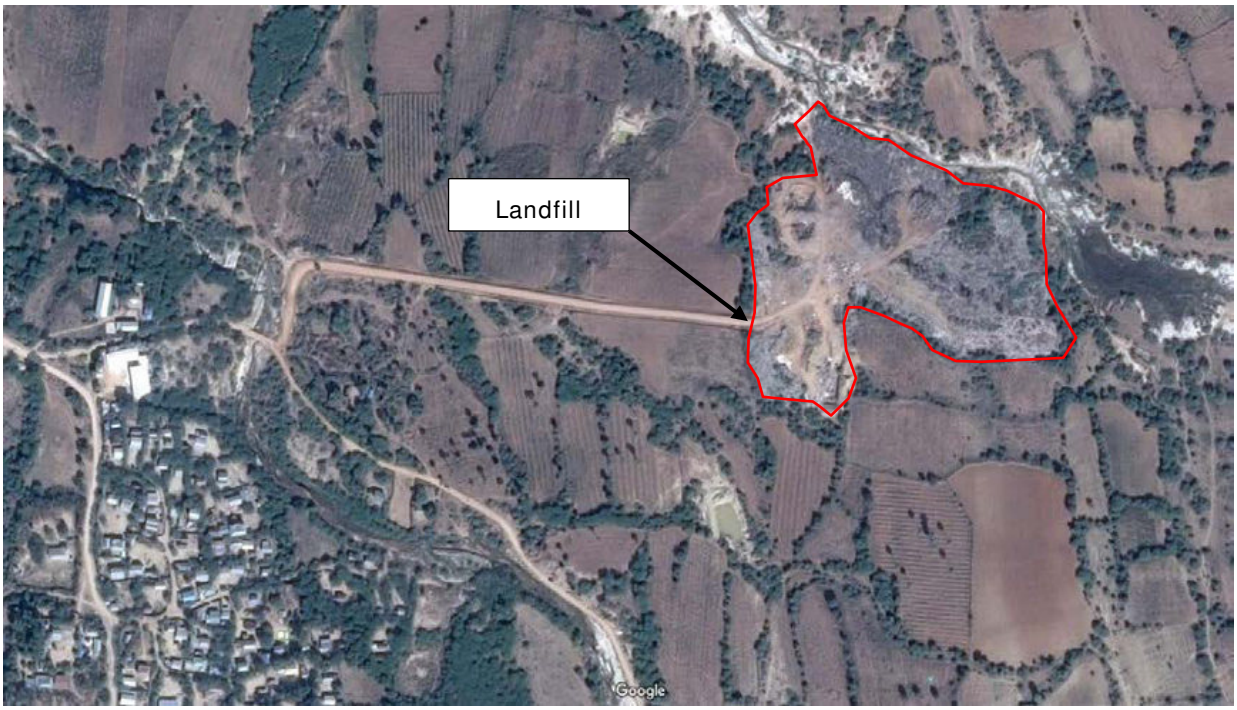
5.10.2 Off-site Waste Disposal

All waste produced during the Project's construction phase, with the exception of materials sent for off-site recycling, is disposed of by a company called OK Service. It is the only waste management company in the Myingyan region that has been approved by the regulatory agencies, and it also disposes of all municipal waste collected in Myingyan.

Solid general waste is collected from the CCPP construction site twice per week by OK Service, then transported to a landfill site operated by the Myingyan Municipality, around 4 km East of the centre of Myingyan (Figure 7). This facility, which was opened around three years ago, is not an engineered landfill but a poorly controlled and unlined waste dump. In addition to material generated by the CCPP construction project this site disposes of around 44 tonnes per day of municipal solid waste. Most waste appears to be deposited on the surface, where it is neither compacted nor buried. Waste across much of the site is smouldering and it was reported that waste is routinely burned. It is understood that smoke sometimes blows towards Myingyan, where it causes a nuisance.

The Project keeps records of the type and volume of waste deposited at the municipal landfill site.

Figure 7: Municipal Waste Disposal Site



During the July 2017 monitoring visit, at least ten scavengers were seen collecting waste materials for recycling. They appeared to live in simple shacks made of waste materials, within the site, close to the entrance. The landfill site was not visited during the January 2018 monitoring visit.

Site representatives reported that medical waste from the Project is comingled with waste from the local hospital before being deposited in an unlined soil pit (approximately 5 m by 5 m in area and 2 m deep) around 100 metres North of the site entrance (Photo 028). It is doused with petrol then burned. Sembcorp recently constructed a medical waste incinerator at the Myingyan Hospital, which has been used to dispose of medical waste produced at the hospital and from the Project site since September 2017 (Photo 029).

Waste is not properly contained in the disposal site as much of it is left on the surface and not covered with soil. Reportedly only hazardous waste is buried in unlined pits within the site. As a result, waste was observed falling from the edge of the site into the bed of an ephemeral river (dry when visited) to the North-East of the site, which appears to flow towards the North West (Photo 030). An accumulation of debris further downstream indicates that when the river flows it transports waste from the designated disposal site. In addition, a considerable amount of wind-blown litter was observed in trees and on the ground surrounding the site.

During the January 2018 monitoring visit, it was reported that the Project now uses a demarcated part of the municipal waste facility, in which waste is deposited in an excavated area, and which is fenced to restrict access (Photo 031). The waste contractor has appointed someone to supervise all disposal of Project waste at the site. The supervisor also discourages scavenging.

It is understood that no waste disposal facilities that meet international good practice are available in the Myingyan region. It is therefore recommended that the Project works with the municipality to improve waste management practices at the landfill site, though, for example:

- providing proper containment around the site such as an earth bund between the site and the river, and a boundary fence to reduce wind-blown litter and control access to the site;

- excavating landfill cells to allow waste to be buried;
- applying daily cover to reduce odour and litter and deter scavenging animals; and
- providing proper personal protective equipment (PPE) to site employees and drivers who carry waste to the site.

Lender environmental and social standards (e.g. IFC PS 3, ADB's SPS SR1 and WBG EHS Guidelines) require waste to be disposed of in an environmentally sound manner.

5.10.3 Waste Hierarchy

Some waste streams are segregated on site for off-site recycling, most notably wood, scrap metal, waste oil and plastics. No data were available on the amount of waste recycled not the contractors engaged for recycling each type of material.

Table 10: Summary of Findings – Waste Management

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Waste management plan	The waste management plan does not describe off-site disposal routes for each waste stream, nor provide information on expected quantities and on-site storage arrangements for each type of waste.	Construction	• IFC PS1 • WBG EHS Guidelines • ADB-ES Principle 4	Revise the waste management plan to include a description of each type of waste generated during construction, along with details of how much is produced per year, where it is stored, and how it is disposed of.	The latest version of the waste management plan included information on waste types, expected quantity and disposal routes.	**Issue Closed**
002	On-site waste containment	A food waste bin was observed that did not securely hold its contents. Also, the main waste storage area on the CCPP site is not protected from wind and rain.	Construction	• Management plan • IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Ensure that food waste is stored in closed containers to discourage rodents and other vermin. Store waste in a secure, covered area before its off-site disposal to prevent wind-blown litter.	The specific issues raised on the July 2017 report have been addressed. During the January 2018 site inspection, a food waste bin next to a rest area in the JEM laydown area had no lid. However, prompt action was taken to rectify the issue before the end of the site visit.	**Issue Closed**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
003	Waste management monitoring and targeting	Waste minimisation targets have not been established and waste records do not meet the requirements of the management plan.	Construction	• Management plan • IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Evaluate opportunities to avoid or minimise waste, set reduction targets and maintain records as prescribed in the management plan, which as a minimum include the amount of each waste stream sent to off-site disposal and recycling each month. This should include hazardous and non-hazardous wastes.	No action has been taken since the July 2017monitoring visit, but it is recognised that opportunities for waste minimisation are quite limited in a construction project.	**Minor**
004	Off-site waste disposal	The municipal waste disposal site operates at a level well below what is considered Good International Industry Practice (GIIP).	Construction	• IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	Work with OK Service and the municipality to improve conditions at the waste disposal site. In particular, effort should focus on improving containment of waste.	Some improvements have been made to the municipal waste disposal site, but they were not verified via a site inspection. Further assessment will be made in the next monitoring site visit.	**Moderate**
005	Waste Segregation	It is unclear whether the waste disposal contractor (OK Service) mixes hazardous and non-hazardous wastes generated by the Project.	Construction	• IFC PS3 • WBG EHS Guidelines • ADB-ES Principle 9	The Project Company should check whether hazardous and non-hazardous wastes are mixed and co-disposed. Steps may need to be taken to ensure the secure disposal of hazardous wastes.	No evidence of co-disposal of hazardous and non-hazardous waste was found in the January 2018 monitoring visit.	**Issue Closed**

5.11 Oil and Chemical Spill Contingency

The Oil and Chemical Spill Contingency Management Plan (SDC0HSSEC-SMP-010, Rev E, 24th January 2018) details the approach taken by the two EPC Contractors to the management of oil and chemical spills. Measures have been taken to prevent spills and leaks (e.g. use of secondary containment around bulk storage containers and the main drum storage areas) but a number of issues were identified during the environmental and social monitoring visit, as detailed in section 5.8 of this report (Soil and Groundwater).

The main chemicals and liquid hydrocarbons observed during the site visit are:

- Diesel, which is stored in bulk storage tanks and in day tanks associated with generators.
- Oil, which is stored in 205 litre drums.
- Drums of other chemicals (mostly water treatment chemicals, ready for the operations phase) stored at different locations around the site.

No spill kits are available at any project site other than buckets of sand in a few locations. It is recommended that spill kits (typically including absorbent materials and booms) are placed in strategic locations based on a risk assessment. The IESC would expect to see spill kits near all facilities for bulk storage of hazardous liquids, and in maintenance areas where oil and waste oil is stored in drums. Two oil spill kits have recently been ordered for the operations phase.

The Second Environmental and Social Monitoring Report highlighted three opportunities for improvement in the Oil and Chemical Spill Contingency Management Plan. One, which related to detailing chemicals stored at the construction site, has been closed following a revision of the management plan, but the following two issues remain:

- Section 3.1.B of the plan states that the Project Management team will prepare unloading and loading protocols. No such procedures have been written, but it is understood that all deliveries of hazardous substances are supervised.
- The procedures for responding to a spill are unclear. The plan describes measures for managing a spill into the river (relevant for deliveries to the jetty by barge, and for work at the water intake pumping station) but does not detail the procedures to follow in the event of an incident at the main construction site. Annex B of the plan (Emergency response flowchart – oil & chemical spillage) provides a basis for spill response but it lacks detail. For example, it is not clear who should take the actions listed in the flowchart, nor how recommendations from an incident investigation will be implemented.

Table 11: Summary of Findings – Oil and Chemical Spill Contingency

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Unlabelled drums	Unlabelled drums were seen in several locations at the construction site.	Construction	• Management Plan • IFC PS 1&3 • WBG EHS Guidelines • ADB-ES Principle 9	Ensure that all chemical and oil drums have clear labels.	This issue can be closed as it is repeated in Table 8 (item 4).	**Issue Closed**
002	Spill kits	There are no spill kits (other than buckets of sand) in Project construction sites.	Construction	• IFC PS 1&3 • WBG EHS Guidelines • ADB-ES Principle 9	Place spill kits near all facilities for bulk storage of hazardous liquids), and in maintenance areas where oil and waste oil is stored in drums.	This issue can be closed as it is now covered by a broader issue detailed in Table 8 (item 6).	**Issue Closed**
003	Revisions to management plan	The Oil and Chemical Spill Contingency Management Plan does not include a full list of hazardous materials stored, does not include detailed loading and unloading protocols and has insufficient clarity on actions to take in the event of a spill.	Construction	• IFC PS 1&3 • WBG EHS Guidelines • ADB-ES Principle 9	Review and revise the Oil and Chemical Spill Contingency Management Plan to ensure it has a comprehensive list of materials stored, develop written procedures for deliveries and dispatch of hazardous liquids, and add written instructions for responding to spills at all Project locations.	The Oil and Chemical Spill Contingency Management Plan has been revised to include a list of materials stored. However, the other issues raised in the July 2017 report have not yet been addressed.	**Minor**

5.12 Emergency Preparedness and Response

The Emergency Preparedness and Response Plan (SDC-HSSEC-SMP-011, Rev C, 19th July 2016) provides a comprehensive description of the likely emergency situations, actions to be followed in the event of an emergency, and emergency response drills. It includes a wide range of potential incidents, including fire, collapse of equipment / structures, chemical spillage, worker injuries, water or gas pipeline leakage, electrical power supply cable damage, civil disturbance & bomb threat, and natural disaster.

It was reported that to date the Project has not had any environmental incidents. The only recorded incidents relate to minor injuries (cuts and bruises) and equipment-related issues (e.g. a vehicle being stuck in mud and a vehicle hitting a lamppost).

Three emergency drills have been completed at the CCPP construction site (a firefighting and evacuation drill in 2016, fire response and rescue of an injured worker at height in 2017, and another drill in August 2017 which involved notification of nearby communities). Reports from the emergency drills were reviewed by the IESC and no issues were identified.

No noteworthy deficiencies have been identified in the Project's Emergency Preparedness and Response Plan.

5.13 Occupational Health and Safety

The Occupational Health and Safety Management Plan (SDC-HSSEC-SMP-012, Rev C, 20th July 2016) describes the Project's HSE-MS, and is based on Sembcorp's corporate HSE-MS. No significant issues were identified in the Project's occupational health and safety (OHS) performance during the IESC third monitoring period.

During the January 2018 monitoring visit, the IESC noted that standards for OHS are very high. Examples of good practice include:

- clear safety hazard signs and clear signage for use of Personal Protective Equipment (PPE);
- effective use of PPE (no examples of people working without the appropriate PPE were noted);
- OHS training for Project personnel and visitors is very comprehensive and toolbox talks appear to be an effective mechanism for reinforcing OHS messages;
- use of clear Lifesaving Rules, which focus on the key OHS risks (the rules are prominently displayed around the site and all personnel are trained in them); and
- effective pest control, for example, treatment of stagnant water in drainage ditches to control mosquitoes.

At the end of 2017 the Project had achieved a total of 7,079,798 man-hours without a lost lime injury (LTI).

In 2017, the Project recently won a safety award from the Royal Society for the Prevention of Accidents (ROSPA) for achieving 4 million man-hours without a lost time incident.

The following occupational health and safety issues were noted during the January 2018 IESC monitoring visit, several of which were addressed shortly after the site visit:

- One incidence of a Project driver not wearing a seatbelt (See Table 6, Item 5 in this report).
- Workers were seen in an excavated area (a trench approximately 2 m deep) without a safe means of access / egress (Photo 032). This was pointed out to Sembcorp representatives, who immediately stopped work and added wooden stairs to the trench (Photo 033).
- Impalement hazards (e.g. sharp metal bars) were seen at several locations.
- Hot exhaust gases from a generator are emitted horizontally at a height of around 2 m, which is a safety issue for anyone working in close proximity. Photographic evidence was received shortly after the site inspection to show that the exhaust had been raised up to around 3 m.

It was noted that the Project uses Sembcorp's corporate Management of Change (MOC) procedure rather than a Project specific document. It was reported that to date there have been no significant HSSE issues related to MOC. Also, the EPC contractors' pre-construction HSSE readiness reviews of their sub-contractors included a review of their MOC procedures.

5.14 Stakeholder Engagement

5.14.1 Stakeholder Engagement

Sembcorp has a Stakeholder and Community Engagement Policy and a Stakeholder Engagement Plan (SEP) for the Project (SCI- HSSEC-SMP-001, undated, file date 20 July 2016). The SEP is well written with objectives, key standards and legislation, stakeholder identification and mapping, planned stakeholder activities, a Project Management Team organisation chart, roles and responsibilities, monitoring, KPIs and reporting. It also includes the community grievance mechanism (described in section 5.14.4).

The SEP has been updated to include a revised organization chart that includes the Community Relations/Development Department and its reporting lines.

The SEP will be in place for the life of the concession (22 years), and PCo has committed to ongoing stakeholder engagement with the local communities and PAPs.

As noted in the ESIA, PCo has engaged with multiple stakeholders including national and local governmental agencies and the local communities since 2015. As ENVIRON was informed, no records of any community consultation meetings and/or focus group discussions held by GOM with the 13 affected villages since the issuance of the ESIA were made available to Sembcorp by GOM. As a result, no minutes of these meetings were made available to ENVIRON.

In regards to PCo's own meetings with stakeholders, we did receive a copy of the Project's Stakeholder Engagement Database during the 1st monitoring period, as well as an Updated Stakeholder Engagement Database (as of 30th June 2017), but no meeting minutes were provided. However, we did receive a copy of the Stakeholder Engagement November 2017 Report, which serves as meeting minutes, described below.

The Community Relations/Development Manager meets at least once per month with MOE, MONREC and EPGE, and he shares information with them on the local villages.

The SEP requires monthly dissemination of Project information to the 13 village leaders and quarterly face-to-face meetings. As was confirmed by PCo during the July 2017 site visit, and again during the January 2018 site visit, PCo has ongoing open communication with the village leaders through which project information is channelled to the village residents. In addition, PCo has been meeting frequently with villagers, and these meetings are recorded in the Updated Stakeholder Engagement Database, although we have received no further details of these meetings.

In addition, the following Public Stakeholder Engagement Meetings have taken place:

- The First Public Stakeholder Engagement Meeting took place in September 2015.
- The Second Public Stakeholder Engagement Meeting took place in June 2016.
- The Third Public Stakeholder Engagement Meeting was held in November 2017, before COD (i.e., before 20 December 2017), and information was presented in the local language at meetings held in eleven villages. Residents of all 13 local villages were invited and attended, and prior to the meetings Sembcorp and the EPGE engineers engaged with the local authorities. Representatives of IFC, ADB and AIIB also attended the meetings. ENVIRON received copies of the meeting presentation (see Appendix 5) and the Stakeholder Engagement November 2017 Report prepared by Sembcorp/PCo after the meetings took place. The Stakeholder Engagement November 2017 Report provided the meeting schedules, locations, number of people who attended, summary of villager feedback/expectations and photos of each meeting.
- The Fourth Public Stakeholder Engagement Meeting is scheduled for November 2018.

At each of the Public Stakeholder Engagement Meetings, Sembcorp representatives disseminate the agenda and meeting details to key stakeholders in the villages before the Public Stakeholder Engagement Meetings take place. Villagers then have adequate time to consider the agenda of the meeting and come up with meaningful questions for the Sembcorp representatives to address during the two-way dialogue meeting.

Topics that are of interest to the stakeholders are addressed during the meetings and can include:

- Employment opportunities, impact and mitigation;
- Procuring and recruiting from the local community;
- Workers' Accommodation Management;
- Air Quality: Impact & Mitigation;
- Wastewater Discharge: Impact & mitigation;
- Soil and groundwater quality;
- Community health and safety;
- Noise and vibration management & dust control;
- Activities and traffic safety management;
- Biodiversity Management Plan;
- CSR initiatives for the local community; and
- Engagement and Grievance Management.

5.14.2 Public Disclosure

As described above, Sembcorp organizes Public Stakeholder Engagement Meetings on an annual basis in the local language and all stakeholders including PAPs and other members of the 13 local villages are invited to attend. During these meetings, Sembcorp and PCo publicly disclose updated project information including the topics listed above in section 5.14.1.

In addition, ADB requires public disclosure of all findings including the monitoring results at all phases of the project. Going forward, Sembcorp should include monitoring results in their presentations to be provided at the annual Public Stakeholder Engagement Meetings.

Recommendations

For future Public Stakeholder Engagement Meetings, project monitoring results need to be included as part of the presentation and information disclosure materials.

5.14.3 Community Relations

ENVIRON met with the Community Relations and Development team during the January 2018 site visit. The Community Relations and Development team accompanied ENVIRON on the visits to the squatters, other PAPs, two communities along the river water supply pipeline (i.e., Hta Naung Tai and Aye Villages), as well as to the Nyaung Kan and Sa Khar Villages. Hein Min Oo (Koyin), hired in May 2017, continues to exhibit a keen interest in community relations, is well organised, keeps detailed records and is committed to his role as CRO. Koyin continues to make weekly visits to all 13 affected villages. In advance of these visits, he informs the village leaders and they together open the suggestion boxes and review any grievances/suggestions submitted. If the village leader isn't available, they discuss by phone the contents, if any, of the suggestion boxes. The CRO also supports the Community Relations/ Development Manager in the planning and implementation of community investment projects under the Community Development Plan (CDP).

In ENVIRON's opinion, the Community Relations/Development team is adequately staffed for the work required and its community relations activities, including weekly visits to all 13 villages, are adequate.

5.14.4 Community Grievance Mechanism

Sembcorp's Community Grievance Mechanism (CGM) is incorporated into the Project's SEP and includes detailed procedures. Sembcorp has a Community Grievance Management Policy, which provides guidance for the implementation of the Project's CGM procedures. In addition, a framework for a grievance mechanism for PAPs is included in the Resettlement Framework (see section on Land Acquisition & Resettlement) The Project's CGM is managed by PCo, and is supported by Sembcorp's Group Community Relations Department and now includes an external grievance committee component, as per ADB's requirements. PCo's external grievance committees, established in November 2017, involve the leaders of all 13 villages. There are, in essence, thirteen separate community grievance committees, one for each village, and the village heads are members for their respective villages, along with a representative of EPGE and PCo's CRO, Community Development, HR and HSSE Managers. However, the detailed Grievance Committee procedures do not include roles and responsibilities for the 13 external grievance committees and explain how they will interact with Sembcorp/PCo's grievance committee to resolve grievances.

Suggestion boxes to enable anonymous submission of grievances are located at the Project site and, as we were informed, in 11 of the 13 villages. A suggestion box was observed outside of the Sa Khar Village GAD during the January 2018 site visit (Photo 034), in addition to the suggestion boxes that was observed in Aye Village and at the JEM workers' camp (Photos 035 and 036).

Sembcorp/PCo provided ENVIRON with a copy of its Community Grievance Mechanism database for 2017, which includes separate worksheets for recording grievances submitted by the PAPs and grievances submitted by other Community Persons (CP). Eleven grievances were submitted by PAP and six were submitted by CP, each recorded in their respective worksheets (see Appendix 6).

In ENVIRON's Second Environmental and Social Monitoring Report, we stated that while the CGM is well structured and detailed, timeframes for some actions are too long (i.e., acknowledgement of receipt of the grievance and responses on Level 1 and 2 grievances to the claimant) and should be shortened from 10-14 days to one week. During the January 2018 site visit, PCo agreed to shorten the time for acknowledgement of receipt of grievances from 10-14 days to one week.

Table 12: Summary of Findings – Stakeholder Engagement

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Management Plan	SEP to be updated.	Construction/ Operations	• Management Plan • IFC PS1 • ADB ES Principle 4	The SEP should be updated to include (i) a revised organization chart that includes the Community Relations/Development Department and its reporting lines; and (ii) revised roles and responsibilities, to reflect the division of responsibilities between the Community Relations/Development Manager and the recently hired CRO.	The SEP has been updated to include a revised organization chart that includes the Community Relations/Development Department and its reporting lines. As per the updated SEP, all responsibilities fall under the Community Relations/Development Manager.	**Issue Closed**
002	Stakeholder engagement	Stakeholder engagement with the 13 village leaders and PAPs.	Construction/ Operations	• Management Plan • IFC PS1 • ADB-SPS Paragraph No.54	PCo should continue to engage in frequent and open communication with the village leaders and in face-to-face communication	The Stakeholder Engagement November 2017 Report evidences the amount of detail that is now documented for the Public	**Issue Closed**

					with the individual PAPs; and the PCo should keep detailed records of these meetings, including meeting minutes.	Stakeholder Engagement meetings. While ENVIRON did not receive a copy of a further updated Stakeholder Engagement Database, providing details beyond November 2017, it is our expectation that it includes an appropriate amount of detail. ENVIRON will review the further updated Stakeholder Engagement Database during our Fourth Monitoring Assignment.	
003	Public Disclosure	During the ESIA process in Myanmar, the project owner's obligation to produce copies of the findings, as well as recommendations in the local language, and distribute them before	Pre-Construction	• ADB-ES Principle 6 • IFC PS1	Sembcorp to advise ENVIRON and the Lenders if copies of its Project presentation were distributed in the 13 local villages	Copies of the Project presentation were distributed during the public meetings that took place to develop the ESIA.	**Issue Closed**

		public consultations take place.			before the public meetings that took place in 2015 and 2016 to develop the ESIA.		
004	Public Disclosure	ADB requires public disclosure of all findings, including the monitoring results at all phases of the project.	Construction/ Operations	• ADB-ES Principle 7 • IFC PS1	Sembcorp to provide details on how they share Project monitoring results with stakeholders.	Sembcorp/PCo will share Project monitoring results with stakeholders at the annual Public Stakeholder Engagement Meetings. The Project monitoring results will be included as part of the presentation and information disclosure materials.	**Moderate**
005	Community Grievance Mechanism	While the community grievance mechanism is well structured and detailed, most timeframes for actions are too long.	Construction/ Operations	• Management Plan • IFC PS1 • ADB-SPS Paragraph 59	The time frames for all actions should be reviewed. The acknowledgement of receipt of a grievance and also responses on Level 1 and 2 grievances to the claimant should be shortened from 10-14 days to one week.	PCo has reduced its time for acknowledgement of receipt of a grievance from 10-14 days to one week.	**Issue Closed**

006	Community Grievance Mechanism	The Project's community grievance mechanism is part of the SEP. Since the PCo personnel process the grievances, this does not fully meet the criteria set in the ADB 2009 SPS Paragraph 59.	Construction	• Management Plan • ADB-SPS Paragraph 59	PCo to ensure that its new external grievance committee, to be established within two months, involves all 13 village leaders, is managed by an individual from outside of PCo/Sembcorp and that its procedures are in compliance with the ADB 2009 SPS Paragraph 59 requirement for managing complaints from the local communities.	PCo's external grievance committees, established in November 2017, involve the leaders of all 13 villages. However, the detailed Grievance Committee procedures do not include roles and responsibilities for the 13 external grievance committees and explain how they will interact with Sembcorp/PCo's grievance committee to resolve grievances. ENVIRON will arrange with PCo to review this activity through interviews in the next monitoring visit.	**Moderate**

5.15 Community Development

The Community Development Plan (CDP, SCI- HSSEC-SMP-002, revision 0.1, undated, file date 20 April 2017), is based on the results of a needs assessment of the 13 villages, and aims to develop projects in the 13 villages within the Project's area of influence with the goal of improving the quality of life in the villages. The initial CDP included a plan scope and objectives; applicable standards including the ADB Safeguard Policy Statements (2009), the IFC Performance Standards (PS1, 2012), and Sembcorp's corporate policies, including its Corporate Social Responsibility Policy and Framework; community baseline assessments; an initial CDP Plan draft Table 2.4 (i.e., Table of Projects); implementation of the CDP; and roles and responsibilities. The CDP, which is included in the Project's ESMP, is intended to be a living document, to be updated periodically when CDP projects are selected and approved throughout the construction phase. The CDP demonstrates PCo's sincere intentions to respond to the project requests made by the local communities, and focuses on community infrastructure improvements (education and health) and not routine CSR activities.

ENVIRON in its First Environmental and Social Monitoring Report recommended that PCo complete its CDP and add the following to the Plan:

- an organisation chart with assigned responsibilities;
- identification of projects to be implemented in the short, medium and long term;
- budgets to be allocated to the identified projects;
- schedule to be established for project implementation; and
- final Key Performance Indicators (KPIs).

During our July 2017 site visit, the Project's CRO provided ENVIRON with a more developed CDP Plan Table 2.4 (Table of Projects) which described four categories of community investment projects:

- educational support;
- improvements in community structures;
- enhance access to groundwater; and
- flood relief.

The CDP Table of Projects received in July 2017 also included for each community investment category objectives, existing initiatives, timing/schedule, assigned responsibilities, budget, intended outcome, and KPIs. PCo conducted a needs assessment of each village, with the focus on education and health, and had narrowed its scope to providing positive benefits to five villages near the Project site including:

- Sa Khar;
- Hnan;
- Nyuang Kan;
- Aye; and
- Tha Pyay Thar.

ENVIRON in its Second Environmental and Social Monitoring Report recommended that PCo update its CDP, add an organisation chart and include the more developed Table 2.4.

As of February 2018, ENVIRON has received the updated CDP and it includes an organisation chart with assigned roles and responsibilities. Upon review of the most recent Table of Projects received in January 2018 (i.e., the 2017-2018 Construction Period CSR Implementation Plan) ENVIRON noted that community investments are again being considered for all thirteen villages.

Recommendation

Prior to commencement of the Fourth Monitoring Period, Sembcorp should provide an updated CDP and its Table 2.4 (Table of Projects) should include updated information on the Existing Initiatives (projects completed in 2017 and those identified for 2018, with the types of projects and villages identified). For confidentiality reasons, it is not necessary for the budgets allocated for each project to be included in Table 2.4.

Table 13: Summary of Findings – Community Development

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Community Development	CDP needs to be updated	Construction/ Operations	• IFC PS1	PCo should update its CDP and add an organisation chart and the more developed Table 2.4.	As of February 2018, ENVIRON has received the updated CDP (file date 20 April 2017) and it includes an organisation chart with assigned roles and responsibilities, and a more developed Table 2.4. ENVIRON noted that community investments are again being considered for all thirteen villages. Prior to commencement of the Fourth Monitoring Period, Sembcorp to provide an updated CDP and its Table 2.4 (Table of Projects) should include updated information on the Existing Initiatives (projects completed in 2017 and those identified for 2018, with the types of projects and villages identified).	**Minor**

5.16 Community Health

The purpose of the Community Health Management Plan (CHMP) (SDC-HSSEC-SMP-015, Rev C, 20 July, 2016) is to manage and mitigate the residual impacts to community health, as identified in the Project's ESIA and the SDCI Health, Safety, Security and Environment Plan (HSSE Plan) (ref: SDCIM/JEM-HSSE-Myanmar-A001). The CHMP includes objectives; Myanmar laws and regulations for Community Health and the IFC Performance Standards; a Community Health baseline study on the seven villages included in the initial ESIA (September 2015); health care facilities in relation to these seven villages; community health risks and receptors and stakeholders; mitigation and management measures; and monitoring and semi-annual reporting.

The CHMP has been updated to include a Community Health baseline study on the six additional villages that were included in the second revision to the ESIA (August 2016); however, it does not include an organisation chart, defined roles and responsibilities and an initial budget.

During the First Monitoring Period, ENVIRON used the Project's CHMP as a reference when monitoring the Project for compliance with IFC PS4. The findings and positive observations made by ENVIRON in the First Monitoring Report concerning compliance with the CHMP remain the same for the Second and Third Monitoring Periods. There are no new issues to report, and a significant gap has been closed, as described below.

During ENVIRON's November 2016 site visit, we recommended that standing water at the Bedok and Min Dharma workers' accommodation camps be removed. As indicated in the Final First Monitoring Report, the standing water at the Bedok camp was already addressed. During the July 2017 site visit, ENVIRON noted that the standing water observed at the Min Dhama workers' camp during the November 2016 site visit had been addressed as well. Drainage troughs were installed throughout the camp, and, in addition, a storage tank was installed; and both are well maintained, as observed during the January 2018 site visit and documented in the site visit photos (Photos 037 and 038).

As ENVIRON learned during the July 2017 site visit, PCo had recently engaged an NGO to provide some training on AIDs/HIV/TB prevention.

<u>Recommendation</u>

- The CHMP should be updated to include an organisation chart, defined roles and responsibilities and an initial budget.

Table 14: Summary of Findings – Community Health

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Human Health	Community Health baseline study included in the CHMP	Construction	• Management Plan • IFC PS4 • ADB-ES Principle 2	A Community Health baseline study should be performed on the six additional villages included in the second revision to the ESIA (August 2016). If this study was performed after the preparation of the CHMP in July 2016, the Plan should be updated to include the baseline study.	The CHMP has been updated to include a Community Health baseline study on the six additional villages that were included in the second revision to the ESIA (August 2016).	**Issue Closed**
002	Management Plan	CHMP is lacking an organization chart, defined roles and responsibilities and an initial budget	Construction/ Operations	• Management Plan • IFC PS4 • ADB-ES Principle 10	The CHMP should also be updated to include an organisation chart, defined roles and responsibilities and an initial budget.	The CHMP still needs to be updated to include an organisation chart, defined roles and responsibilities and an initial budget. Efforts should now be made to include this information in the Operational phase CHMP.	**Moderate**
003	Community Exposure to Disease	Standing water at two workers' accommodation camps	Construction	• Management Plan • IFC PS4 • ADB-ES Principle 10	Bedok and Min Dhama should continue to strive to minimize standing water at the camps and perform frequent inspections and maintenance of the new drainage systems to	The Bedok camp is closed. At the Min Dhama camp, ENVIRON observed during the January 2018 that the new drainage system is well maintained.	**Issue Closed**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
					ensure they are well maintained.		

5.17 Workers' Accommodation

The Project's Workers Accommodation Management Plan (WAMP, SDC-HSSEC-SMP-016, REV C, 20 July 2016), is based on local regulations and IFC Guidelines, and was approved prior to financial close; although we were unable to find any reference to workers accommodation camps in the ILO Guide to Myanmar Labour Laws. The WAMP was prepared by SDCI's and JEM's HR and HSSE Managers, but still refers to only SDCI's commitments to comply with the plan; and it doesn't state that it is applicable to JEM's workers' accommodation camp or the subcontractors' camps (i.e., Bedok and Min Dhama). As stated in the WAMP, the purpose of the plan is to set out SDCI (Myanmar) Co., Ltd.'s approach to ensure that the construction workers of the Project have suitable accommodation in terms of health and safety throughout the Project's construction period and to ensure that the workers' accommodation has minimal impacts on the local communities and the neighbouring environment.

In Section 4.9 of the EPC Contract with SDCI Myanmar Co. Ltd and Jurong Engineering (JEM) the environmental, social and labour requirements are described, and they include the ESIA and IFC Performance Standards (2012) but we were unable to find a section in the contract that describes the requirements for the workers' accommodation camps.

Based on ENVIRON's observations, none of workers' accommodation camps were in full compliance with PS2 and/or with Sembcorp's Workers' Accommodation Management Plan. While the three camps ENVIRON visited during the November 2016 and July 2017 site visits had dining halls, shops and recreational areas, the sleeping accommodations, for unskilled labourers, in particular, were substandard. Workers are bused to and from the project sites and encouraged to stay at the camps during their off hours, but they are free to leave the camps, if they wish.

During the January 2018 site visit, ENVIRON received the following updates on the Project's use of workers' accommodation camps:

- PCo confirmed that Bedok, JEM and Min Dhama were made aware of the requirements included in the Workers Accommodation Management Plan, and their need to comply with this plan.
- Bedok's work at the Project is finished and their workers' camp was closed on October 30, 2017, without any upgrades being made to the workers' sleeping accommodations.
- Two temporary camps, used by JEM and one sub-contractor (i.e., Min Dhama), are still in use. Since the number of workers living at the JEM and Min Dhama camps has been substantially reduced, due to the construction progress, overcrowded conditions at these camps no longer exist.
- Two houses being rented by MDKK and CPP, which ENVIRON has not had the opportunity to inspect, are still in use.

During the January 2018 site visit, ENVIRON re-visited the two workers' camps that are still in use to assess any improvements in their conditions, and noted the following:

- JEM: The current camp population is 107 Thai skilled workers, down from a peak of more than 150. The camp wind down started at the end of November 2017, and closure is anticipated by the end of June 2018. Main observations at the camp are described below:
    1) worker density in the sleeping accommodations has been reduced, due to the construction progress (Photo 039);
    2) shelving has been installed outside the sleeping rooms so workers can do light cooking for themselves;

3) additional laundry facilities have been installed and JEM provides laundry services for workers (Photo 040); and

4) a zinc roof installed on all camp buildings, with a sprinkler system to cool the buildings, is well maintained.

- Min Dhama: The current camp population is approximately 190, down from a peak of about 300. Camp closure is anticipated by the end of June 2018. Camp improvements over the past year include a proper drainage system (as described in section 5.16, Community Health); and a zinc roof and sprinkler system to cool the buildings. Camp inspections included select sleeping accommodations and a rural bathing area:

  1) Buildings with rooms for unskilled workers (24' x 8'), with wooden floors and windows; there are now on average two occupants per room. There are no beds, workers sleep on the floor.

  2) Women's rural bath had shallow water that was not very clean (Photo 041).

Recommendation:

- At the Min Dhama camp, rural baths should be kept clean and free of standing water; and the bath water should be changed three times per week.

Table 15: Summary of Findings – Workers' Accommodation

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Workers' Camps	The sleeping accommodation facilities at all three workers' camps are still overcrowded.	Construction	• Management Plan • IFC PS2	PCo should work with JEM, Bedok and Min Dhama to immediately upgrade the workers' sleeping accommodations, where gaps were noted and eliminate the overcrowded conditions.	The Bedok camp was closed on October 30, 2017, without any upgrades being made to the workers' sleeping accommodations. Since the number of workers living at these camps has been substantially reduced, due to the construction progress, overcrowded conditions at these camps no longer exist.	**Issue Closed**
002	Workers' Camps	Maintenance of the bathing areas.	Construction	• Management Plan • IFC PS2	Rural baths should be kept clean and free of standing water.	At the Min Dhama camp, rural baths should be kept clean and free of standing water; and the bath water should be changed three times per week.	**Minor**
003	Management Plan	Contractors/subcontractors are not operating their workers' camps in compliance with IFC PS2 or the Project's	Construction	• Management Plan • IFC PS2	PCo should confirm with JEM, Bedok and Min Dhama that they are fully aware of the requirements included	PCo confirmed that JEM, Bedok and Min Dhama were made aware of the requirements included in	**Issue Closed**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
		Workers' Accommodation Management Plan.			in the Workers Accommodation Management Plan, and their need to comply with this plan.	the Workers Accommodation Management Plan, and their need to comply with this plan.	

5.18 Local Recruitment and Procurement

The Project's Local Recruitment and Procurement Management Plan (LRPMP, SDC-HSSEC-SMP-017, REV C, 20 July 2016) addresses the hiring of labour and capacity building for the local workforce. The LRPMP includes objectives; legal and regulatory requirements, Sembcorp's policies and procedures, and the applicable IFC Performance Standards (PS1 and PS2); provisions for recruitment and procurement; monitoring measures and reporting; and roles and responsibilities.

The LRPMP applies to the construction phase only and to all employment, procurement, contracting and acquisition activities associated with the Project regardless of the value. However, it is recognised that there are some products, goods or services that cannot be sourced locally (within local communities or even within Myanmar). In that case, this plan is not applicable.

As ENVIRON was informed by Sembcorp's HR Manager, within Myanmar, there are only four technical vocational centres, so Myanmar cannot produce a lot of the skilled labour required for the Project. Foreign skilled workers, employed by JEM, are all from Thailand (504) and make up 44.2% of the total workforce, as of January 2018.

5.18.1 Local Recruitment and Procurement

Local is defined under the LRPMP as including the six communities within the Project's DAI (i.e., Sa Khar, Hnan Ywa, Hpet Taw, Nyaung Kan, Gyoke Pin and Tha Pyay Thar), as mentioned in the Revised ESIA (August 2016). According to the LRPMP, inhabitants are considered local as long as they were present in the local area before the first quarter of 2016 when construction was scheduled to commence, and local businesses are those owned by local inhabitants.

As ENVIRON was informed by Sembcorp's HR Manager, Bedok, JEM, Min Dhama, SDCI and SMPC together, currently employ 167 local workers from villages within the Project's DAI.

Labour is recruited through construction contractors and subcontractors. Sembcorp's HR Manager confirmed that the six Sembcorp policies and procedures included in section 2.1 of the LRPMP were provided to the contractors, and they include:

- Procedure Manual for Material Procurement. Doc. No.: SDC-QP-207. on the procurement of material;
- Staff Requisition. Doc. No.: HR_S_SR. on the management of headcount;
- Use of Employment Agencies. Doc. No. HR_S_UEA. on the use of employment agencies;
- Probation and Confirmation. Doc. No.: HR_S_PC. on probation period;
- Offer of Employment. Doc No.: HR_S_OE. on priority to existing employees for job vacancy; and
- Employment of Temporary Employee. Doc. No: HR_S_ETE. on employment of temporary employee.

SCDI monitors compliance with the LRPMP and they provide Sembcorp's HR Manager with periodic reports.

The LRPMP now explicitly states that it covers unskilled and short-term workers.

The LRPMP now requires (i) signed contracts to be executed between the employer and employee, as per existing labour law and regulations for the hiring of Myanmar-citizen skilled workers, technicians and employees, and (ii) "mini-contracts" to be executed between the

employer and employee for the hiring of local unskilled and short-term workers (refer to section 4.1).

5.18.2 Workers' Training and Capacity Building

Safety training courses for workers, including those of the subcontractors, are held three times per week, and based on the nature of a workers' job responsibilities, there is specialised safety training as well. In addition, first aid training (five-days) is provided to workers by the Red Cross, and every Saturday during the workers' assembly they have an awareness program. Environmental management training sessions are held as part of the HSEE training program, and include: solid (hazardous and non- hazardous) waste management, chemical spill management training is also held.

Refer to section 5.24, Labour & Working Conditions for additional labour information, and for ENVIRON's observations and recommendations for closing additional gaps in the Project's compliance with PS2.

Table 16: Summary of Findings – Local Recruitment and Procurement

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Unskilled Workers	It is not clear if the LRPMP covers unskilled workers.	Construction	• Management Plan • IFC PS2	If the LRPMP is intended to cover unskilled workers, Sembcorp to amend the plan to make it more explicit.	The LRPMP has been amended to require "mini-contracts" to be executed between the employer and employee for the hiring of local unskilled and short-term workers (refer to section 4.1).	**Issue Closed**
002	Employment Contracts	Subcontractors' short-term workers do not have employment contracts	Construction	• Management Plan • IFC PS2	As recommended in section 5.24, Sembcorp should complete the mini-contract template to be used for short-term workers, and inform the subcontractors of the need to implement this new contract procedure when engaging short-term workers; and encourage subcontractors to have contracts executed with all affected workers ASAP and have workers sign acknowledging receipt.	Sembcorp completed the mini-employment contracts template and this new procedure was implemented by the subcontractors as of August 2017. The terms and conditions included in Sembcorp's template for the subcontractors' local short-term employment contracts are consistent with the main terms and conditions included in Sembcorp's own standard employment contracts.	**Issue Closed**

5.19 Project Influx

Project induced in-migration (PIIM) caused by an influx of in-migrants during construction was identified as a potential impact of the Project. The Influx Management Plan (SDC-HSSEC-SMP-018, REV C, 20 July, 2016) presents the different measures to mitigate the adverse impact from migration of construction workers and opportunistic migrants during the construction phase. The key objectives of this Plan are to identify management strategies and actions that aim to:

- discourage in-migration into the Project's Area of Influence (AoI) that would otherwise not occur if the Project did not exist;
- strengthen Project security to protect the Project against negative PIIM impacts;
- stage the in-flow of migrants and plan Project access routes, so as not to encourage the emergence of in-migrant hotspots in other parts of the Myingyan area;
- manage, to the extent possible, the footprint of in-migrants who settle within the Project's AoI;
- ensure delivery of Project benefits among existing residents and PAPs in a way that does not encourage in-migrants;
- plan and communicate Project and EPC contractor management policies that mitigate PIIM; and
- identify which strategies will be purely Project-led strategies, and those which will require collaboration with local authorities.

As ENVIRON was informed, the Project's workers are recruited through contractors and/or subcontractors and there is no influx of job seekers. No influx of camp followers was reported during ENVIRON's November 2016 site visit and none were observed as well during our July 2017 and January 2018 site visits.

The small informal settlement located outside the Project perimeter has been there since before construction for the Project commenced and does not appear to be increasing in size.

The IESC has not identified any issues relating to influx management.

5.20 HSSE Training

5.20.1 Construction Phase

The HSSE Training Plan (SDC-HSSEC-SMP-019, Rev D, 20th July 2016) specifies the HSSE training and competency requirements for personnel working for the two EPC contractors and their sub-contractors. Most of the document focuses on OHS issues.

All new personnel, including Project Company, EPC contractor and sub-contractor staff receive two to three hours of HSE induction training prior to starting work. Training records were reviewed by the IESC and no issues were noted. Visitors, including the IESC team, are given a shorter version of the HSSE induction course. In addition, personnel graded supervisor above, receive a more thorough training course on the Project's construction phase ESMP. The training slides were reviewed by the IESC, who concluded that they are comprehensive and fit-for-purpose.

All Project personnel are invited to mass toolbox talk every Saturday morning (Photo 042), which cover a range of HSE issues, and more targeted training is provided where necessary.

No concerns have been identified with HSSE training.

5.20.2 Operations Phase

The Operations and Maintenance (O&M) team is about to receive one-month of training by construction team staff on technical and HSE issues. In addition, O&M representatives will visit Sembcorp power plants in Jurong Island (Singapore) and Salalah (Oman), and training will be provided on technical issues including HV switching, PTW and fuel demand modelling.

5.21 Cultural Heritage

The Cultural Heritage Management Plan (SDC-HSSEC-SMP-020, Rev 0, 20th September 2016) describes procedures to be employed in the event of a chance find of a suspected item of cultural heritage value. The Project ESIA concluded that no cultural heritage sites are located within close proximity of the Project, and it was reported that no cultural heritage materials have been found during site clearance and excavation work.

The IESC has not identified any cultural heritage related issues.

5.22 Security

The Security Management Plan (SDC-HSSEC-SMP-021, Rev C, 20th July 2016) describes the procedures to ensure that Project worksites are protected against unauthorised entry, theft and damage.

Security at the CCPP construction site is provided by a private security company, who supplies 24-hour site security using unarmed personnel. Security personnel at the gate check gate passes issued to guests prior to visits, material delivery, and all other vehicles entering and exiting. Identification cards are issued to visitors and surrendered when exiting the Project site.

The Project maintains good communications with the Myingyan District Police. During ENVIRON's July 2017 site visit, ENVIRON and PCo met with the police chief and he confirmed that there is a procedure in place with the police to provide additional support, if needed, but this arrangement is not covered under a written agreement.

As of the date of ENVIRON's second visit to the Myingyan District Police Station during its January 2018 site visit, the police chief again confirmed that he had no record of any incident involving project workers or of its contractors.

The IESC has not identified any issues relating to security management.

5.23 Land Acquisition & Resettlement

5.23.1 Resettlement Framework

PCo developed a Resettlement Framework for the Project (November 2015). The Resettlement Framework was submitted on 27th October 2016 to the Ministry of Natural Resources and Environmental Conservation of Myanmar. ENVIRON's Land Acquisition and Resettlement Plan Observer Report (the Observer Report), serves the purposes of a Resettlement Action Plan.

5.23.2 ENVIRON's Land Acquisition and Resettlement Plan Observer Report

ENVIRON prepared its Final Observer Report (August 2017), based on information provided by the party/ies responsible for the land acquisition and observations made during its attendance at the following meetings to observe the land acquisition process:

Negotiation Meetings with PAPs

- 18 October 2016 Taung Thar Township;
- 19 October 2016 Hta Naung Taing Village; and
- 1 December 2016 Hta Naung Taing Village.

Compensation Ceremonies

- 23 November 2016 Hnann and Sa Khar Villages;
- 1 & 4 February 2017 Taung Thar Township;
- 2 February 2017 Myingyan Township; and
- 3 February 2017 Hta Naung Taing Village.

In addition, during meetings with stakeholders during ENVIRON's November 2016 monitoring site visit, to inform the Lenders on the land acquisition process followed at the Project, to identify gaps in compliance with Applicable Standards, and determine the actions required to bridge the gaps. ENVIRON's findings are documented in its Final Observer Report.

5.23.3 Land and Crop Compensation

At the time of resettlement framework preparation, GoM was to acquire the lands required for the transmission line towers' footprints, and to compensate farmers for the temporary disruption to their livelihood where they farm on government-owned land along the river water pipeline route, adopting national requirements. The resettlement framework required Sembcorp to bridge the gaps in compensation between the national requirements and SPS/IFC PS requirements.

The river water pipeline was buried under government-owned lands and the land uses (mostly agriculture and two thirds squatters) will continue undisrupted post laying of the pipelines. Similarly, for the transmission lines and towers, there was no permanent land acquisition, except for lands under footprints of the transmission line towers and electric poles.

With this approach, the permanent impacts occurred only to the footprints of the transmission towers and the footprints of the electric poles, all of which were on agricultural land. For all other sections of the river water pipeline and the route of the transmission line (stringing), the impacts were limited to the construction phase.

The compensation paid by the GoM for these temporary impacts on land have been assessed by ENVIRON and confirmed as at least equivalent to about 3 crop cycles of productivity loss, which is much higher than the actual impact of not more than 1 crop cycle of construction along any stretch of the pipeline/transmission line.

The impacts on structures of the squatters and other private land owners have been compensated at least the full replacement cost. The compensation was paid prior to the occurring of impact. In addition to consultations by the borrower with the affected squatters/structure owners, ENVIRON has carried out consultations during the monitoring visits and confirms the payment of compensation at full replacement costs and also that there has been no permanent disruption due to the project and livelihood losses.

For the electric poles and transmission towers, based on the actual area of impacts (lands permanently lost due to the setting of towers and the erection of poles), there was an assessment of the potential productivity loss for the entire project period (22 years). The gap between the potential agricultural loss and the compensation paid by GoM was assessed, and the differential was not paid in cash, but in kind as fertilizer bags to the individual land owners. The documentation of the distribution of fertilizer bags has been done by Sembcorp. Therefore, the compensation for the footprints of the electric poles and towers have been done satisfactorily to lender requirements.

The construction of the pipelines/transmission lines have been taken up in stretches and the construction period along any particular section of the alignment has been not more than a crop cycle. Replanting of the fields along the transmission line and the river water pipeline alignments has been confirmed by Sembcorp, site visits by ENVIRON and the consultations with the land owners.

In summary, there are no permanent livelihood impacts due to the project. The temporary impacts have been addressed at full replacement costs, and the permanent impacts associated with the footprints of the transmission towers and electric poles as well have been compensated at full replacement cost. The gap in compensation standards for the electric poles have been met through additional non-cash compensation (in the form of fertilizer bags, one each per power pole).

Further, a functional grievance mechanism exists on ground, in the event of any grievances from the affected persons.

Sembcorp provided the following confirmation of the land procurement process for the elevated section of the pipeline towards the river:

The compensation process for individuals affected by the elevated section of the pipeline is the responsibility of EPGE, in collaboration with the relevant Government Administrative Divisions (GAD), acting on behalf of the Government of Myanmar. EPGE has already identified 7 PAPs in the area and has drawn up a methodology whereby each individual is compensated MMK 10,000 per year for each piece of bridge pipe on their land for the next 3 years, the same as individuals affected by the electric T-poles (10,000 MMK per square metre affected per year). The PCo will then top-up the payments for the subsequent 20 years. This is to be completed before COD 2 and PCo is waiting to receive a formal letter from EPGE to begin the process of compensation.

As of 12th April 2017, all PAPs were compensated (at full replacement cost) for land and crop loss, with the exception of the PAPs impacted by the elevated section of the pipeline towards the river, described above. The compensation process for these PAPs will soon begin.

5.23.4 Update on the Squatters and other PAPs

As ENVIRON was informed at the time of its July 2017 site visit, the river water supply pipeline had been buried and the four T-line towers constructed, and T-line wires installed. PAPs had begun re-planting crops above the buried pipeline (as of the end of July 2017) and re-planting had already begun under the T-line wires as well.

During ENVIRON's January 2018 site visit, we were again able to visit with the owners of the tea house that had to be temporarily dismantled, as well as the family of a farmer who grows corn and onions on land located near the river water supply pipeline.

- Farmer in Hta Naung Tai Village

  Mr. Paw Shwin, a corn and onion farmer, was compensated for temporary economic displacement due to the installation of the river water supply pipeline and three power poles. Mr. Paw Shwin, and his daughter, who we visited with during the November 2016 and July 2017 site visits, mentioned in July 2017 that they were satisfied with their compensation, which they used to purchase materials to construct the foundation for a new house and shop (Photo 043). They also mentioned that they have a good relationship with the Project's CRO. We met briefly with his wife and daughters during our January 2018 site visit and they appeared to continue to have a good relationship with the Project's CRO.

- Small Shop in Aye Village

  A household with a shop, owned by Mrs. Daw Than Aye, where the front of the shop was moved to the rear, in order to accommodate installation of the river water supply pipeline, which occurred about 45 days before our July 2017 visit. Compensation was used to build a new and bigger house and shop next to the existing structures (Photo 044). She mentioned in July 2017 that she has a good relationship with the Project's CRO. Time constraints did not permit us to re-visit her in January 2018.

- Tea House in Aye Village

  Ye Myint, is the co-owner of the tea house, along with his wife, U Zaw Lin, who was not present at the time of our January 2018 visit. The front of the tea house was demolished and re-built after the river water supply pipeline was installed. Compensation was used to purchase materials to re-build the tea house and add a new roof and poles (support structure inside the tea house. He mentioned that he has a good relationship with the Project's CRO.

- New House with Fence in Aye Village

  Mr. U San Min Khaing, the owner of the house where the fence was taken down and re-built after installation of the river water supply pipeline, is from Mandalay and has not been at home during any of ENVIRON's site visits.

5.23.5 Previous Gaps as per the Observer Report

Gaps in compliance with the Applicable Standards, as noted in ENVIRON's Final Observer Report, were carried forward into the Second Environmental and Social Monitoring Report, and are being updated in this Third Environmental and Social Monitoring Report, and updates include the following:

- ADB disclosed the Resettlement Framework on its website, and as noted in the ESIA, consultation meetings took place in all the villages where people lived who were going to be affected by land impacts (both temporary and permanent).
- The framework for a grievance mechanism for the PAPs is included in the Resettlement Framework, and PCo created a separate category for PAPs' grievances in the CGM database for 2017.
- Information has been provided to ENVIRON on the number of power poles for which each PAP was compensated due to being temporarily economically displaced during construction of the river water supply pipeline. As indicated in **Table 17** below, a total of

353 power poles were installed along the river water supply pipeline, and 117 PAPs received, in addition to its cash compensation, one bag of fertilizer as a form of additional compensation for each power pole that was installed essentially to bridge the gap between the national standards and the Lender requirement of each PAP receiving full replacement costs (for details per PAP, see **Appendix 7**).

Table 17. Summary of Number of PAPs, Power Poles and Fertilizer Bags received

District	PAP	Power Poles & Fertilizer Bags
Myingyan Taungtha	79 38	225 128
Total	117	353

Recommendations

Livelihood impacts are limited. The impacts on livelihood due to the laying of the pipelines have been temporary and livelihoods were restored after the completion of the construction activities. ENVIRON conducted consultations along the pipeline route and in several local villages during our three monitoring site visits to date, and confirms that the land uses are restored to their original use and livelihood disruption is not occurring.

Now that construction has been completed for the buried sections of the river water supply pipeline, T-line towers and T-line wires have been installed, and PAPs have been re-planting crops; PCo has been conducting face-to-face meetings with each of the PAPs to assess resettlement outcomes PCo has already met with 20 PAPs and should continue their meetings until all 147 have been interviewed. A resettlement closure report should be prepared through an external agency, upon completion of the resettlement activities by Sembcorp/PCo. The approach for preparing the resettlement closure report can be subsequently agreed between the lenders and Sembcorp/PCo.

Table 18: Summary of Findings – Land Acquisition & Resettlement

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Public Disclosure	Public disclosure of the Resettlement Framework in Myingyan Township and in the 13 affected villages.	Construction	• ADB-IRS Principle 9 • IFC PS5	In consultation with the Lenders, Sembcorp should determine the path forward to meet this requirement given the sensitivity of the information to be provided.	ADB disclosed the Resettlement Framework on its website, and consultation meetings took place in all the villages where people lived who were going to be affected by land impacts (both temporary and permanent).	**Issue Closed**
002	Resettlement Grievance Mechanism	The framework for a grievance mechanism for the PAPs is included in the Resettlement Framework.	Construction	• Resettlement Framework • IFC PS5	The grievance mechanism's records, focused solely on the PAPs, should be recorded in a separate category in the Project's CGM database.	PCo created a separate category for PAPs' grievances in the CGM database for 2017	**Issue Closed**
003	Land Acquisition	A census on all PAPs who will be physically (temporarily) and economically displaced (both land owners and land users) was not made available by the GOM	Construction	• ADB-IRS Principle 1&2 • IFC PS1	No action can be taken at this stage of the Project.		**N/A**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
		to Sembcorp, and in addition, no records of any community consultation meetings and/or focus group discussions held by the GOM with the 13 villages after issuance of the Revised ESIAs (November 2015 and August 2016), were made available to Sembcorp by GOM.					
004	Land compensation	Identification of PAPs who will give up land for the power poles and the number of power poles for which each PAP will be compensated.	Construction	• ADB-IRS Principle 1&3 • IFC PS5	PCo to provide the number of power poles installed on each PAP's property (total number of power poles along the river water supply pipeline has not yet been determined, but is approximately 340-350).	A total of 353 power poles were installed along the river water supply pipeline, and 117 PAPs received, in addition to its cash compensation, one bag of fertilizer as a form of additional compensation for each power pole that was installed.	**Issue Closed**
005	Livelihood Restoration	Resettlement outcomes and impacts on the standards of living of displaced	Construction	• ADB-IRS Principles 3 & 12 • IFC PS5	Now that construction has been completed for the river water supply pipeline, T-line towers and T-line wires	Livelihood impacts are limited. The impacts	**Minor: Activity is Ongoing**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
		persons, and whether the objectives of the resettlement plan have been achieved.			installed, and PAPs have been notified that they can begin re-planting crops; PCo should have a face-to-face meeting with each PAP to assess resettlement outcomes, their impacts on the standards of living of the PAPs, and whether the objectives of the resettlement plan have been achieved, and detailed written records of these meetings should be prepared.	on livelihood due to the laying of the pipelines have been temporary and livelihoods were restored after the completion of the construction activities. ENVIRON conducted consultations along the pipeline route and in several local villages during our three monitoring site visits to date, and confirms that the land uses are restored to their original use and livelihood disruption is not occurring. A resettlement closure report should be prepared through an external agency, upon completion of the resettlement activities by PCo (the borrower). The approach for	

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
						preparing the resettlement closure report to be subsequently agreed between the lenders and borrower.	
006	Livelihood Restoration	Provision of transitional support and development assistance.	Construction	• ADB-IRS Principle 4 • IFC PS5	ENVIRON recommends that PCo, in collaboration with local banks, should establish some basic money management courses for the PAPs.	No action needs to be taken at this stage of the Project.	N/A
007	Land Acquisition	Final details on the land acquisition process followed by GOM are still pending.	Construction	• ADB-IRS Principle 6 • IFC PS5	PCo to provide (i) details on the final land acquisition process carried out for the affected land owners (only applies to the T-line tower foundation areas), and (ii) details on the final process carried out for non-titleholders impacted (land users and squatters).	No action needs to be taken at this time due to the following: 1. There was limited land acquisition (T-line tower and power pole footprints only) 2. The compensation for loss of assets and crops was witnessed by ENVIRON. 3. Individual signed agreements with all landowners have been provided to	**Issue Closed**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
						ENVIRON for review. This issue is closed, with the exception of the elevated portion of the water pipeline, which is addressed under item 008 below.	
008	Land Compensation	Identification of all PAPs who will give up land for the elevated section of the pipeline near the river, and determine compensation for each PAP. Compensation is to be completed before COD 2 and PCo is waiting to receive a formal letter from EPGE to begin the process of compensation.	Construction	• ADB-IRS Principle 1, 2 &3 • IFC PS1 & PS5		PCo to record details on all PAPs affected by the elevated section of the pipeline near the river, ensure consultation meetings take place with each PAP, and address any grievances submitted by these PAPs, as noted in the community grievance database, prior to compensation being paid. PCo to provide an update on land compensation to ENVIRON during the next monitoring site visit.	**Moderate**

5.24 Labour & Working Conditions

Human Resources documentation reviewed by ENVIRON includes:

- Sembcorp's Code of Business Conduct;
- Global Human Rights Policy;
- Human Resources procedures;
- A sample employment contract;
- Workforce statistics;
- Local Recruitment and Procurement Management Plan; and
- Workers' Grievance Mechanism

5.24.1 Sembcorp's Code of Business Conduct and Global Human Rights Policy

Sembcorp's Code of Business Conduct and Global Human Rights policy prohibit any form of discrimination and emphasise equal opportunity for all. They also prohibit both child and forced labour, but the EPC Contract does not explicitly prohibit child or forced labour. The Global Human Rights Policy also includes the right of freedom of association and collective bargaining. ENVIRON did not observe during any of its three monitoring site visits any child or forced labour or any other activities that would violate Sembcorp's Code of Business Conduct or Global Human Rights policy.

5.24.2 Human Resources Procedures

The Project has nine Human Resources (HR) operational procedures that address various HR topics: recruitment (with no discrimination); medical examination, if required for the position; performance appraisals; salary and overtime payments; and various types of paid leave (annual leave, medical leave, casual leave, maternity leave) and unpaid leave. All of the operational procedures are based on Myanmar labour laws and regulations. While the operational procedures are brief (about five pages each) they cover all the key points and are acceptable.

The Project's nine HR procedures apply to Sembcorp workers (full-time, part-time and temporary) and contract employees but subcontracted employees are not mentioned. Sembcorp's HR Manager confirmed that Sembcorp's HR procedures were provided to subcontractors, and that copies of their employee handbooks/policies were obtained to ensure compliance to Sembcorp's standards.

Sembcorp/PCo, to assess the Project's compliance with ADB's Social Protection Requirements and IFC's PS2, has taken a proactive approach to engaging the community, understanding their needs, rolling out CSR initiatives to address their health, sanitation, education as well as infrastructure needs.

5.24.3 ENVIRON, to assess the Project's compliance with ADB's Social Protection Requirements and IFC's PS2, reviews the Project's compliance with its labor-related management plans, which were prior to financial close, determined to be in compliance with national labor laws and the core labor standards.Employment Contracts

Employment contracts are now executed with both skilled and unskilled workers. The sample Sembcorp employment contract reviewed was in compliance with IFC PS2 requirements. Employment contracts for workers engaged by subcontractors are discussed in section 5.24.7 below.

5.24.4 Workforce

Table 18 below includes a breakdown of the Project workforce, as of January 2018, (i) male vs. female workers for SMPC, contractors and sub-contractors, and (ii) the origin of the workers (i.e., local (from the 13 villages within the Project's AoI), Mandalay Region, Myanmar beyond the Mandalay region, and foreigners).

Table 19: Project Workforce

Sr. No	Company Name	Male	Female	Total	Location				Total
					Local	Regional	Inside Myanmar	Foreigner	
1	CPP	5		5				5	5
2	Bedok	6	5	11	11				11
3	JEM	524	31	555	51			504	555
4	MDC	480	15	495	98	61	336		495
5	SDCI	17	10	27	2	10	13	2	27
6	SMPC	38	8	46	5	4	23	14	46
	Totals	1,070	69	1,139	167	75	372	525	1,139

5.24.5 Local Recruitment and Procurement Management Plan

For details on this plan, refer to Section 5.18.

5.24.6 Workers' Grievance Mechanism

While we were informed during the November 2016 site visit that a workers' grievance mechanism exists, we were not able to find any document in the ESMP that describes the workers' grievance mechanism or its procedures. After the November 2016 site visit, a one-page outline of the workers' grievance mechanism procedures was submitted to ENVIRON. Based on an explanation that was verbally provided by Sembcorp's HR Manager to ENVIRON, we confirmed that a satisfactory workers' grievance mechanism is in place, but its procedures were not properly documented. We have received the updated written workers' grievance mechanism policy/procedures, which includes the name of the new HR Manager; and the grievance mechanism database has been split into two databases, one for the community grievances and one for the workers' grievances.

A suggestion box to receive anonymous grievances, inquiries and/or suggestions is located near the main door to Sembcorp's project office, and are also located at the workers' camps (Photo 036). As we understand, suggestion boxes where both workers' and communities' grievances can be submitted are now checked weekly.

5.24.7 Workers Engaged by Third Parties

As ENVIRON was informed during the July 2017 site visit, Sembcorp and PCo had not been able to review the contractors' contracts with subcontractors and many of the subcontractors' employees (i.e., short-term including unskilled workers) did not have contracts.

As agreed with ENVIRON during the July 2017 site visit, Sembcorp's HR manager created a template for employment mini-contracts, and it includes all labour-related information that PCo's local workers receive in their contracts (e.g., salary, work hours, paid time off), to be used by subcontractors when engaging short-term local and unskilled workers. ENVIRON has been provided with the mini-contract template and confirms that it is in order.

During Environ's July 2017 site visit, we inquired with Sembcorp's HR Manager how Sembcorp and PCo ensure through their monthly monitoring of contractors/subcontractors that:

- Subcontractors' employees are treated fairly and paid in accordance with local labour laws. According to Sembcorp's HR Manager, compensation to each worker is documented and each worker has to sign a voucher each time he/she is paid.
- No minors are hired. We were informed that the minimum age for employment at the Project is 18, and that each month all subcontractors must submit a spreadsheet of workers that includes for each employee his/her employee identification number and date of birth.
- Workers are fully paid and they are free to leave.

During ENVIRON's January 2018 site visit, PCo confirmed that it had received copies of JEM's HR policies and/or procedures, but it had not received the same from Min Dhama. Since the January 2018 site visit, PCo has informed ENVIRON that it has done its due diligence in reviewing the HR policies of its respective EPC companies and provided a copy of the SDCI HR manual as an example, but did not confirm at the time that they had received and reviewed Min Dhama's HR policies and/or procedures. Sembcorp has since received Min Dhama's Employee Handbook and provided it to ENVIRON. We have reviewed Min Dhama's Employee Handbook and note that while it does include most HR procedures, it does not include workers' grievance procedures,

prohibition of child or forced labor, or mention of employee's rights to freedom of association & collective bargaining.

Recommendation

- PCo should confirm that Min Dhama has been complying with all commitments included in Sembcorp's Code of Business Conduct, Global Human Rights Policy and HR procedures.

5.24.8 Retrenchment

Retrenchment is not addressed in the ESMP. However, ENVIRON has been informed by Sembcorp that, as the Project prepares to enter into the operational phase, retrenchment plans are in place to provide placement for employees who were hired during the construction phase. PCo and EPC contractors have two procedures in place:

- Communicate to the retrenched workers that they will be prioritized if there are any new projects within the country and region; and
- Place existing staff from EPCs to join the working team in the operational phase.

Some examples to highlight include:

- JEM interviewed one of the local female staff for the next assignment under JEM. However, the offer was rejected due to family reasons (i.e., Wer Wer May Kyaw, Admin Assistant).

- SDCI made announcements to recruit personnel who might be interested to work for SDCI or other EPC contractors for future projects.

- PCo hired 3 permanent staff who were previously from SDCI and JEM.

    - Mya Thandar (SDCI);
    - Aye Nyein Tun (JEM); and
    - Pe Myint Tun (JEM).

Recommendation

- The ESMP should identify potential impacts of the retrenchment phase and identify policies and procedures to minimize its impacts; and ENVIRON should be provided copies of the retrenchment plans.

The following Labour & Working Conditions topics are addressed in other sections of this report:

- Occupational Health and Safety, Refer to Section 5.13;
- Workers' Accommodation Camp Management, Refer to Section 5.17;
- Local Recruitment and Procurement, Refer to Section 5.18; and
- Influx Management, Refer to Section 5.19.

Table 20: Summary of Findings – Labour & Working Conditions

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
001	Workers' Organizations	No reference to workers' rights to organise was found in the ESMP.	Construction/ Operations	• IFC PS2	Workers' rights to organise should be explicitly stated in the Code of Business Conduct.	Workers' right to organise is explicitly stated in Sembcorp's Global Human Rights Policy	**Issue Closed**
002	Workers' Grievance Mechanism	Only a one-page outline of the workers' grievance mechanism was provided to ENVIRON.	Construction/ Operations	• IFC PS2	Comprehensive written workers' grievance mechanism procedures should be developed.	Workers grievance mechanism policy/procedures have been prepared and received at ENVIRON, and have now been finalized and include the name of the new HR Manager, and the grievance mechanism database has been split into two databases, one for the community grievances and one for the workers' grievances.	**Issue Closed**
003	Policies and Procedures	Contractors'/subcontractors' HR policies/procedures.	Construction	• IFC PS2	PCo should obtain copies of the contractors' and subcontractors' HR policies/procedures in order to determine if they have incorporated commitments included	PCo has obtained copies of JEM's and SDCI's HR policies and/or procedures and Min Dhama's Employee Handbook. ENVIRON noted upon review of Min Dhama's	**Moderate**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
					in Sembcorp's Code of Business Conduct and PCo's HR procedures into their policies and procedures.	Employee Handbook that while it does include most HR procedures, it does not include workers' grievance procedures, prohibition of child or forced labor, or mention of employee's rights to freedom of association & collective bargaining. PCo should confirm that Min Dhama has been complying with all commitments included in Sembcorp's Code of Business Conduct, Global Human Rights Policy and HR procedures.	
004	Employment Contracts	Subcontractors' short-term workers do not have employment contracts.	Construction	• IFC PS2	Sembcorp should complete the mini-employment contracts template and work with subcontractors to have contracts executed with affected workers ASAP and have workers sign acknowledging receipt.	Sembcorp completed the "mini-contract" template and provided it to subcontractors to use when engaging local short-term workers. This new procedure went into effect in August 2017. The terms and conditions included in Sembcorp's	**Issue Closed**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
						template for the subcontractors' local short-term employment contracts are consistent with the main terms and conditions included in Sembcorp's own standard employment contracts.	
005	Retrenchment	Retrenchment is not addressed in the ESMP.	Transition from Construction to Operations	• IFC PS2	PCo should identify potential impacts of the retrenchment phase and identify policies and procedures to minimise its impacts.	ENVIRON has been informed by Sembcorp that, as the Project prepares to enter into the operational phase, retrenchment plans are in place to provide placement for employees who were hired during the construction phase. PCo and EPC contractors have two procedures in place: 1.) communicate to the retrenched workers that they will be prioritized if there are any new projects within the country and region; and 2) place existing staff from EPCs to join the working team in the operational phase.	**Moderate**

ID	Aspect	Issue Description	Phase	Standard	IESC Recommendations (July 2017)	January 2018 Update	Significance
						ENVIRON should be provided copies of these retrenchment plans.	

6. STATUS OF ESAP

The IESC's observations on the status of the Environmental and Social Action Plan (ESAP) are presented below. Following each commentary, we have provided a status summary (Closed, Work in Progress, or Open.

Table 21: Status of ESAP

No	Task Title / Description	Anticipated Completion Date	Status and Reference to Supporting Documentation and Section(s) of E&S Monitoring Report
1/PS1	Develop and implement construction phase E&S Management Program (ESMP) consistent with ESIA recommendation and IFC requirements and which includes: • Dust Management Plan; • Traffic Safety Management Plan; • Noise and Vibration Management Plan; • Surface Water Management Plan; • Soil and Groundwater Management Plan; • Waste Management Plan (Hazardous and non-Hazardous Waste); • Oil and Chemical Spill Contingency Management Plan; • Emergency Response Plan (including Community Emergency Response Plan); • Stakeholder Engagement Plan (including Grievance Management Plan); • Community Development Plan (CDP); • Community Health Management Plan; • Occupational Health and Safety Management Plan; • Workers' Accommodation Management Plan; • Local Recruitment and Procurement Plan; • Influx Management Plan; • Cultural Heritage Chance Find Procedure;	Documented ESMPs in from and substance acceptable to IFC: by 15/05/2016 or prior to construction, whichever is earlier. Evidence of inclusion of plans in EPC HSE requirements: by 15/05/2016 or prior to construction, whichever is earlier.	The construction phase ESMP consists of 20 individual management plans, covering the topics included in the ESIA. The list is slightly different to that proposed in the ESAP. The main changes are: • The Project has not developed a Contractor Management Plan. Instead, roles and responsibilities of contractors are defined in the project's Occupational Health and Safety Management Plan (SDC-HSSEC-SMP-012) and in the Project HSE Plan. • The Project has developed three plans that are not mentioned in the ESAP: o Plant and Vehicle Management and Maintenance Plan; o Biodiversity Management Plan; and o HSSE Training Plan. The construction phase ESMP was developed prior to construction. IESC observations on the implementation of each plan are detailed in section 5 of this report. The IESC has reviewed the EPC contracts (see section 5.2 of this report) and concluded that they are not directly referenced in the contract documentation. However, annexes to the contract refer to the ESMP. 15 of the 20 plans were written by the EPC Contractors, and the EPC Contractors are responsible for implementation of each of the plans except for Community Development and Stakeholder Engagement, which are the responsibility of the Project Company.

No	Task Title / Description	Anticipated Completion Date	Status and Reference to Supporting Documentation and Section(s) of E&S Monitoring Report
	• Security Plan; and • Contractor Management Plan. The sponsor will also complement the EPC HSE construction requirements to include the aforementioned aspects.		**Status Summary:** Closed
2/PS1	Develop and implement Operational Phase E&S Management Program (ESMP) consistent with the outcomes of the ESIA, local legal requirements, and IFC PS requirements. The ESMP will cover applicable environmental, occupational health and safety, community health and safety, and social management aspects.	Documented Operational Phase ESMP in form and substance acceptable to IFC: 15/09/2018 or prior to commencement of operations, whichever is earlier.	The Operational Phase ESMP has not yet been developed but it was reported that the Project HSE Manager is working with the Plant Manager on this task. This will be assessed in the fourth IESC monitoring visit (Q3, 2018). During the third IESC monitoring visit, it was reported that the OHS Management Plan will serve as a HSE manual, and that life-saving rules which are commonly used in oil and gas companies, will be enforced. **Status Summary:** Work in Progress
3/PS1	Assign a dedicated technically qualified construction phase ESHS management team comprised of a Head and supported by its own ESHS coordinators. Prior to the start of operations, define an ESHS organizational structure comprised of a Head of ESHS with supporting OHS and community affairs coordinators who will be fully responsible for implementation of the operational phase ESMP.	Assignment of construction ESHS team: 15/05/2016 or prior to construction, whichever is earlier.	A technically qualified ESHS management team has been appointed by the Project Sponsor and the EPC Contractors, as detailed in section 5.2 of this report. **Status Summary:** Closed
		Assignment of operation ESHS team: 15/09/2018 or prior to commencement of operations, whichever is earlier.	The construction phase HSSE Manager will continue to manage environmental and social issues in the operations phase of the Project, supported by Saoo Kyaw Win. **Status Summary:** Closed

No	Task Title / Description	Anticipated Completion Date	Status and Reference to Supporting Documentation and Section(s) of E&S Monitoring Report
4/PS1	Expand scope of construction phase Emergency Preparedness & Response (EPR) plans mentioned in the EPC contract to include all emergency scenarios including but not limited to emergencies arising from occupational accidents, accidents involving the public, health related emergencies, and from natural hazards.	Evidence of construction phase EPR scope expanded in EPC contract: 15/05/2016 or prior to construction, whichever is earlier.	The Project's Emergency Preparedness & Response (EPR) Management Plan includes all foreseeable emergency response situations, including those specified in the ESAP. **Status Summary: Closed**
	Develop and implement an operational phase EPR Plan prior to commencing of testing and operational activities based on the outcome of the detailed quantitative risk assessment and after finalization of project design. The EPR Plan will define protocols to be followed in the event of emergencies or disasters; address both on-site and off-site emergency situations; disclose potential disasters/risks from the plant to the local community as well as the plan of action on emergency protocol in the event of any such eventuality. It will also include awareness programs for the Plant personnel, local community and local administration.	Operational phase EPR in form and substance acceptable to IFC: 15/09/2018 or prior to commencing plant testing activities, whichever is earlier.	An operational phase EPR plan has not yet been developed. It will be assessed in the fourth IESC monitoring visit (Q3, 2018). The IESC recommends that this plan is prioritised. It is understood that a specialist contractor will be engaged to provide training on the EPR plan. **Status Summary: Work in Progress**
5/PS1	Develop and implement a detailed, project specific monitoring and reporting program with monitoring measures applicable to each of the relevant management plans. Monitoring and reporting activities will be reviewed by an independent E&S consultant on a semi-annual basis during construction and annually thereafter for the first year of operation. A summary monitoring report will be disclosed to local communities semi-annually during construction and annually during first year of operation.	Program developed in form and substance acceptable to IFC: by 15/05/2016 or prior to construction, whichever is earlier. Independent reviews (construction): Semi-annually during construction phase (15/09/2016).	Rather than develop a stand-alone environmental and social monitoring plan the Project has included a monitoring and reporting section into each management plan where appropriate. ENVIRON has been appointed as the IESC on a semi-annual basis during construction and annually thereafter for the first year of operation. No summary monitoring reports have yet been disclosed to local communities. **Status Summary: Work in Progress**

No	Task Title / Description	Anticipated Completion Date	Status and Reference to Supporting Documentation and Section(s) of E&S Monitoring Report
		Independent reviews operation): By start of operations and annually for first year of operations (15/09/2019).	
6/PS1	Develop and implement a community development and stakeholder engagement program - to include clearly defined objectives, stakeholder identification and analysis, performance indicators, activities, resource allocation, assigned implementation personnel, grievance mechanisms for local stakeholders, and mechanisms to appropriately disclose project related information to communities on an ongoing basis. The program will be communicated to project affected local communities on an ongoing basis, so that they are well aware of its existence and can also easily access the grievance mechanisms.	Documented program in form and substance acceptable to IFC: 15/05/2016 or prior to construction, whichever is earlier.	Community Development program As of February 2018, ENVIRON received an updated CDP and it includes an organisation chart with assigned roles and responsibilities, and Table 2.4. Prior to commencement of the Fourth Monitoring Period, Sembcorp should provide an updated CDP and its Table 2.4 (Table of Projects) should include updated information on the Existing Initiatives (projects completed in 2017 and those identified for 2018, with the types of projects and villages identified). **Status Summary: Work in Progress**

No	Task Title / Description	Anticipated Completion Date	Status and Reference to Supporting Documentation and Section(s) of E&S Monitoring Report
			Stakeholder Engagement program The SEP is well written with objectives, key standards and legislation, stakeholder identification and mapping, planned stakeholder activities, a Project Management Team organisation chart, roles and responsibilities, monitoring, KPIs and reporting. It also includes the community grievance mechanism. PCo has engaged with multiple stakeholders including national and local governmental agencies and the local communities since 2015. The SEP has been updated to include a revised organization chart that includes the Community Relations/Development Department and its reporting lines. **Status Summary: Closed**
7/PS2	Ensure relevant parts of project HR policies and procedures cover labour practices of contractors and sub-contractors.	Documented program in form and substance acceptable to IFC: 15/05/2016 or prior to construction, whichever is earlier.	PCo has obtained copies of Jurong's and SDCI's HR policies and/or procedures, and Min Dhama's Employee Handbook, which they recently provided to ENVIRON. ENVIRON noted upon review of the Employee Handbook that while it does include most HR procedures, it does not include workers' grievance procedures, prohibition of child or forced labor, or mention of employee's rights to freedom of association & collective bargaining. PCo should confirm that Min Dhama has been complying with all commitments included in Sembcorp's Code of Business Conduct, Global Human Rights Policy and HR procedures. **Status Summary: Work in Progress**

No	Task Title / Description	Anticipated Completion Date	Status and Reference to Supporting Documentation and Section(s) of E&S Monitoring Report
8/PS2	During construction, regularly monitor the labour practices of contractors and sub-contractors (e.g. non-use of child/forced labour) against a checklist to ensure compliance with national labour laws and regulations.	Monitoring reports in form and substance acceptable to IFC: Annually following the start of construction activities (15/03/2017).	PCo through the monthly monitoring procedure does monitor contractors and subcontractors to ensure compliance with national labour laws and regulations, but additional monitoring needs to be put in place for subcontractors' engagement of unskilled workers (see section 5.24 of this report). Sembcorp completed the "mini-contract" template and provided it to subcontractors to use when engaging local unskilled and/or short-term workers. This new procedure went into effect in August 2017. ENVIRON has not yet received any details on how PCo monitors the subcontractors use of the mini–contracts. **Status Summary: Work in Progress**
9/PS2	Ensure that the housing provided by contractors/subcontractors to their workers meets standards required by the company as specified in the project HSE Plan and in IFC PS2, and are also consistent with principles of non-discrimination and equal opportunity.	Working housing specifications included in EPC contract making reference to IFC standards: 15/05/2016 or prior to construction, whichever is earlier.	Workers accommodations provided by JEM and one remaining subcontractor (Min Dhama) are still not in full compliance with IFC PS2 and the Project's Workers Accommodation Management Plan (see section 5.17 of this report). However, the camps are anticipated to close by June 30, 2018, and it's likely that no more upgrades will be made to the camps. **Status Summary: Closed**
10/PS3	Ensure that wastewater discharge from construction and operational activities meets applicable World Bank Group (WBG) General EHS Guideline values including those applicable to sanitary wastewater, oily runoff, and cooling water blowdown.	Results submitted in AMRs (15/03/2017).	Wastewater discharges from construction activities do not meet applicable World Bank Group (WBG) General EHS Guideline values (see section 5.7 of this report). The main concern is that untreated sewage is disposed of to an unlined soil pit. Wastewater treatment facilities have been constructed for the operations phase, and have been designed to meet the standards specified in the WBG EHS Guidelines for Thermal Power Plants.

No	Task Title / Description	Anticipated Completion Date	Status and Reference to Supporting Documentation and Section(s) of E&S Monitoring Report
			Status Summary: Work in Progress
11/PS4	Mitigate traffic related accident risks during construction through measures such as: access control, barricading, reflectors, signage, community safety awareness programs, posting of traffic marshal, equipment back up alarms, proper securing of material while moving them from one place to another, planning material movement to cause minimum disruption, speed controls; alarms; posting traffic marshals at high risk locations; undertaking appropriate measures to reduce fugitive emissions from storage and transport of construction and waste material, implementing driver safety management and training requirements for the transport of people and materials. Require the EPC contractor to prepare a detailed traffic and transport management plan including such elements as: implementation of a personnel and materials movement plan which takes daily life and traffic patterns into account; periodical monitoring of noise levels at community sensitive receptor points.	Evidence of inclusion in EPC HSE requirements: 15/05/2016 or prior to construction, whichever is earlier.	Traffic related accident risks are well managed. The Project has a comprehensive Traffic Management Plan, which has been implemented effectively through a combination of physical controls (e.g. reversing alarms, vehicle maintenance), use of clear traffic signs on site, a strictly enforced speed limit, risk assessments for unusual loads, awareness training, and use of PPE such as reflective jackets. As a result, there have been no traffic related injuries. Only two traffic related accidents have been reported (one vehicle being stuck in mud and another colliding with a lamppost). Community impacts have been considered in the Traffic Management Plan. Designated traffic routes have been established to avoid populated areas, and the Project monitors noise at the six community sensitive receptor points identified in the ESIA report. **Status Summary:** Closed
12/PS4	Require EPC contractor to implement a management plan that will include: ensuring that appropriate medical facilities are available for all labour; a periodic health checkup program is in place; an awareness program on STI and HIV/AIDS; and measures to control disease vectors.	Evidence of inclusion in EPC HSE requirements: 15/05/2016 or prior to construction, whichever is earlier.	Immediate medical assistance is available at the Project site, and arrangements are in place with the medical centre is Myingyan for emergency services. A periodic (annual) health check-up program is in place, along with measures to control disease vectors. An NGO recently was engaged to provide training for an awareness program on STI and HIV/AIDS. **Status Summary:** Closed

No	Task Title / Description	Anticipated Completion Date	Status and Reference to Supporting Documentation and Section(s) of E&S Monitoring Report
13/PS5	Develop a resettlement framework with a set of project-level PS5 compliant procedures on land acquisition and involuntary resettlement which will be applied to all ongoing, and future land acquisition related activities should they occur.	Procedure in form and substance acceptable to IFC: 31/05/2016 or as advised by EPGE.	PCo developed a Resettlement Framework for the Project (November 2015) which was disclosed on ADB's website. ENVIRON's Land Acquisition and Resettlement Plan Observer Report serves the purposes of a Resettlement Action Plan (see section 5.23 of this report). **Status Summary: Closed**
14/PS5	Proactively work with EPGE during the river water supply pipeline and T-line RoW land acquisition process, and demonstrate that the outcome and process are consistent with PS5 requirements.	RoW land acquisition work plan in place and consistent with PS5 requirements – 31/05/2016 or as advised by EPGE RoW outcome/process report prepared by the company verifies consistency with PS5 requirements - prior to operations (15/09/2018).	PCo proactively worked with EPGE during the river water supply pipeline and T-line RoW land acquisition process. Livelihood impacts are limited. The impacts on livelihood due to the laying of the pipelines have been temporary and livelihoods were restored after the completion of the construction activities. As of 12th April 2017, all PAPs were compensated (at full replacement cost) for land and crop loss, with the exception of the PAPs impacted by the elevated section of the pipeline towards the river, described below. The land acquisition for the elevated section of the pipeline towards the river is still in process. The compensation process for individuals affected by the elevated section of the pipeline is the responsibility of EPGE, in collaboration with the relevant Government Administrative Divisions (GAD), acting on behalf of the Government of Myanmar. The land acquisition process is to be completed before COD 2 and PCo is waiting to receive a formal letter from EPGE to begin the process of compensation.

No	Task Title / Description	Anticipated Completion Date	Status and Reference to Supporting Documentation and Section(s) of E&S Monitoring Report
			Now that construction has been completed for the buried sections of the river water supply pipeline, T-line towers and T-line wires have been installed, and PAPs have been re-planting crops; PCo has been conducting face-to-face meetings with each of the PAPs to assess resettlement outcomes (see section 5.23 of this report). PCo has already met with 20 PAPs and should continue their meetings until all 147 have been interviewed. A resettlement closure report should be prepared through an external agency, upon completion of the resettlement activities by PCo (the borrower). The approach for preparing the resettlement closure report to be subsequently agreed between the lenders and borrower. **Status Summary: Work in Progress**

7. SUMMARY

The IESC finds the Project is generally compliant with the ESAP with the exception of eight actions that are still work in progress. In addition, a number of opportunities for improvement in the Project's environmental and social performance have been identified.

Key moderate significance environmental findings are related to the discharge and disposal of sanitary wastewater including sewage, and storage of chemicals and oils onsite. The sanitary wastewater issues will be resolved when the onsite wastewater treatment plant comes on line in the middle of the year (July/ August 2018).

The moderate significance issues are summarised below. There were no high significance issues.

Moderate significance issues

Environmental:

- Sanitary wastewater is not properly treated before off-site disposal. Sewage is collected in cess pits and other wastewater is discharged to the environment untreated. Sanitary wastewaters will be routed to the onsite wastewater treatment plant under construction by mid-year.
- The quality of sanitary wastewater is not monitored before disposal. As sewage is collected for offsite disposal to a municipal landfill, there is marginal benefit in monitoring the quality of this waste stream although it is not in accordance with international good practices..
- The off-site sanitary wastewater disposal site does not meet lender standards. Sembcorp reviewed disposal options and the disposal site (landfill) operated by the Myingyan Municipality was the only available facility in the area. While not an ideal option, an assessment of potential impacts revealed that there are no sensitive receptors in close proximity and the disposal site is a municipal landfill where all types of wastes are disposed to. Sembcorp should work with OK Service and the municipality to improve conditions at the waste disposal site. In particular, effort should focus on improving containment of waste.
- Groundwater abstracted at the CCPP site was not tested for pathogens. Should elevated levels be detected the Project should implement measures to reduce exposure pathways.

In addition, monitoring of draw down should be undertaken to assess the impact of abstraction on the water table.

Social:

- ADB requires public disclosure of all findings, including the monitoring results at all phases of the project. Going forward, Sembcorp should include monitoring results in their presentations to be provided at the annual Public Stakeholder Engagement Meetings.
- PCo's external grievance committees, established in November 2017, involve the leaders of all 13 villages. There are, in essence thirteen separate community grievance committees, one for each village, and the village heads are members for their respective villages, along with a representative of EPGE and PCo's CRO, Community Development, HR and HSSE Managers. However, the detailed Grievance Committee procedures do not include roles and responsibilities for the 13 external grievance committees and explain how they will interact with Sembcorp/PCo's grievance committee to resolve grievances.
- Land compensation for the elevated section of the pipeline near the river needs to be completed. PCo to record details on all PAPs affected by the elevated section of the

pipeline near the river, ensure consultation meetings take place with each PAP, and address any grievances submitted by these PAPs, as noted in the community grievance database, prior to compensation being paid. PCo to provide an update on land compensation to ENVIRON during the next monitoring site visit.

- The CHMP does not include an organisation chart, defined roles and responsibilities and an initial budget, and should be updated with this additional information.
- PCo has obtained copies of Jurong's and SDCI's HR policies and/or procedures, and Min Dhama's Employee Handbook, which they recently provided to ENVIRON. ENVIRON noted upon review of the Employee Handbook that while it does include most HR procedures, it does not include workers' grievance procedures, prohibition of child or forced labor, or mention of employee's rights to freedom of association & collective bargaining. PCo should confirm that Min Dhama has been complying with all commitments included in Sembcorp's Code of Business Conduct, Global Human Rights Policy and HR policy and procedures.
- Retrenchment is not addressed in the ESMP. However, ENVIRON has been informed by Sembcorp that, as the Project prepares to enter into the operational phase, retrenchment plans are in place to provide placement for employees who were hired during the construction phase. Sembcorp should provide ENVIRON with copies of the retrenchment plans.

Suggested corrective actions are provided within the report, but these are not prescriptive: instead the Project should define appropriate corrective actions and report on the implementation of such actions via periodic monitoring reports submitted to the Lenders.

APPENDIX 1 – SITE VISIT PHOTO LOG

Photo 1: MOGE gas receiving station

Photo 2: Final section of river water supply pipeline

Photo 3: Wastewater pipeline exposed by river bank erosion

Photo 4: Nyaung Hla "jetty", which is no longer used by the Project

Photo 5: Restricted access to areas handed over to the operations team

Photo 6: Equipment colour-coding to demonstrate maintenance and fitness-for-use

Photo 7: Dust suppression on site roads

Photo 8: Trucks fitted with covers that are used when conveying soil and dusty materials

Photo 9: Enclosed conveyor at concrete batching plant

Photo 10: Soil stockpiles exceeding 2 m high

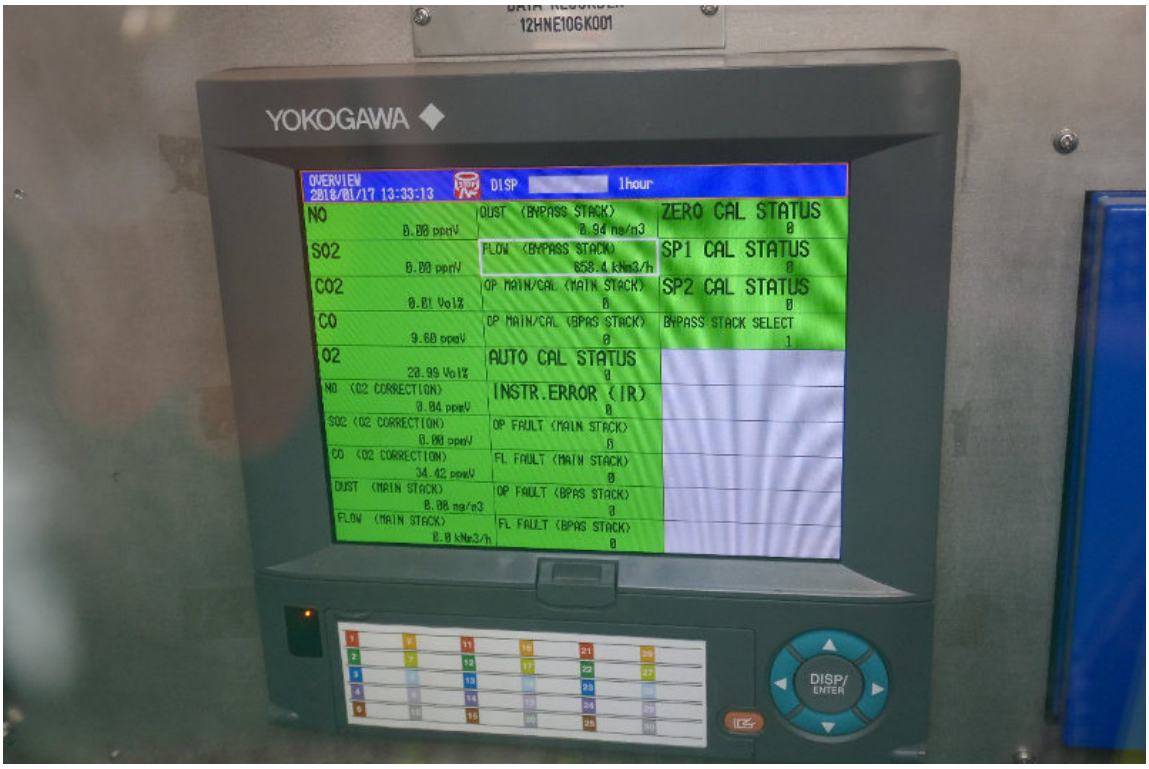


Photo 11: CEMS display panel

Photo 12: River water intake pumps

Photo 13: River water storage reservoir

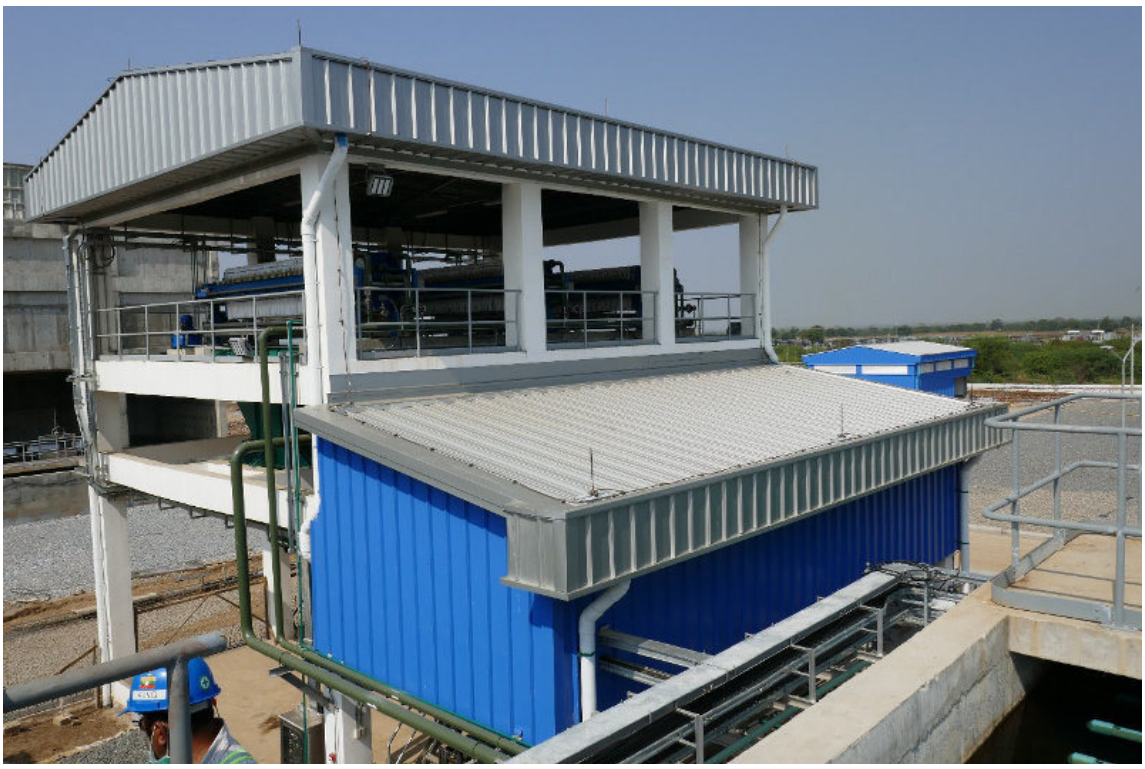


Photo 14: Sludge filter press building

Photo 15: Vacuum tanker collecting sewage from septic tank at JEM camp

Photo 16: Wastewater disposal pit, reportedly used for disposal of sanitary wastewater

Photo 17: Evidence of wastewater disposal on soil adjacent to pit

Photo 18: Screen on kitchen wastewater discharge at JEM camp

Photo 19: Sewage treatment plant

Photo 20: Central monitoring basin

Photo 21: Car park outside Administration Building

Photo 22: Sodium hypochlorite tanks with no secondary containment

Photo 23: Oil drums with no drip trays

Photo 24: Storage of chemicals and oil without secondary containment

Photo 25: Some chemical storage drums are deformed from exposure to sunlight

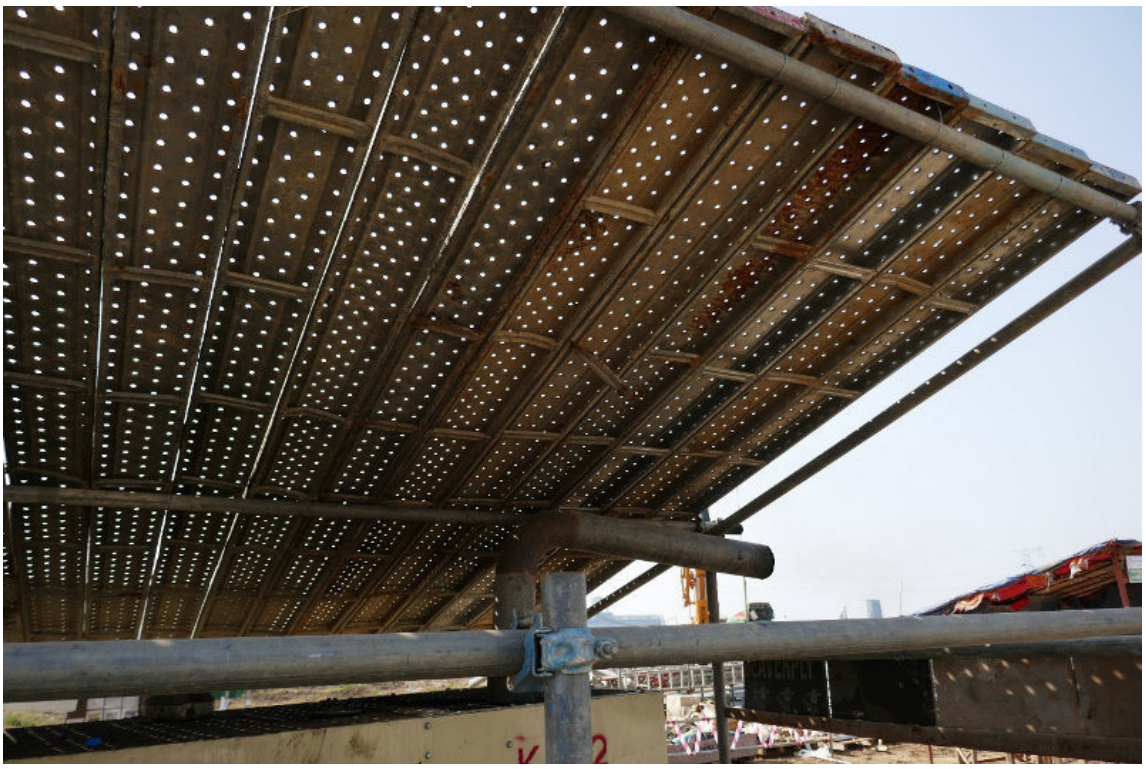


Photo 26: Non-watertight roof over a diesel generator

Photo 27: Roof over generator replaced immediately after site visit

Photo 28: Landfill of medical waste in July 2017

Photo 29: Medical waste incinerator at Myingyan Hospital

Photo 30: Waste falling from landfill into ephemeral stream bed adjacent to landfill site

Photo 31: Newly demarcated project area at landfill site

Photo 32: Working in an excavated area with no safe means of access

Photo 33: Safe access added to trench

Photo 34: Project suggestion box outside the Sa Khar GAD office

Photo 35: Project suggestion box outside Aye Village

Photo 36: Project suggestion box at the JEM workers' camp

Photo 37: Well-maintained drainage system at the Min Dhama workers' camp

Photo 38: Closer view of the drainage system at the Min Dhama workers' camp

Photo 39: Mattresses that are no longer needed since worker density has been reduced at the JEM workers' camp

Photo 40: New laundry services provided for workers at the JEM workers' camp

Photo 41: Women's rural bath at the Min Dhama workers' camp

Photo 42: Attendance at a Saturday morning Tool Box meeting

Photo 43: Foundation for the farmer's new house and shop along the river water supply pipeline

Photo 44: Old and new shops along the river water supply pipeline

APPENDIX 2 – MONITORING PLAN

Myingyan Natural Gas Power Project
Lenders' Environmental and Social Consultant (LESC) Third Monitoring Visit
Monitoring Plan

Monitoring Visit Date:	16th to 18th January 2018	**Site Location:**	Sembcorp Myingyan Power Company Ltd. Myingyan, Myanmar
Monitoring Team:	The monitoring team will comprise: • Mr Alan Fowler, Ramboll Environ – Monitoring Team Leader, Environmental Specialist Mobile: +44 7734 557357, E-mail: afowler@ramboll.com • Ms Sharon Maharg, Ramboll Environ – Social Specialist Mobile: +1 917 326 9330, E-mail: smaharg@ramboll.com Note: 1. The monitoring team will be accompanied by two Ramboll staff as part of capacity building (Sandi Moe from our Yangon office, and Sharmini Ramanathan from our Kuala Lumpur office). 2. The following lender representatives will participate in the monitoring visit: • Mr Viswanathan Ramasubramanian - Senior Safeguards Specialist, ADB • Ms Beatrice Gomez, Safeguards Specialist, ADB • Mr Benjamin Man Ling Li, IFC		
Principal Client Representatives:	• Mr Htoon Nay Htoon, Commercial Manager, Sembcorp Myingyan Power Company Ltd. Tel: +95 1 9345 233~234 Ext-15, E-mail: htoon.nayhtoon@sembcorp.com • Mr Tin Aung Swe – Project HSE Manager Tel: +65 6723 3371, E-mail: tin.aungswe@sembcorp.com • Mr. Aung Lwin Oo – Development Manager Tel: +95 9 9726 08080, E-mail: aung.lwinoo@sembcorp.com • Mr. Henry Aung Kyaw Khine Htoon – Human Resources and Administration Manager (Singapore) E-mail: henry.aungkkh@sembcorp.com • Ms. Mya Thandan – Project Human Resources Manager		
Persons to be Notified of Monitoring Visit:	In addition to those listed above: • Dennis Foo, General Manager, Sembcorp Myingyan Power Company Ltd Mobile: +95 9 9769 37101, E-mail: dennis.foo@sembcorp.com • Viswanathan Ramasubramanian - Senior Safeguards Specialist, ADB, Tel: +63 2 683 1447, E-mail: vramasubramanian@adb.org • Beatrice Gomez, Safeguards Specialist, ADB Tel: +632 632 4444, E-mail: bgomez@adb.org • Benjamin Man Ling Li, IFC E-mail: bli1@ifc.org • Victor Chuanzhi Su, AIIB		

	E-mail: csu@aiib.org • Che Yu Kok, DZ Bank E-mail: cheyu.kok@dzbank.de
Scope of Monitoring:	The environmental and social monitoring visit will cover the CCGT site and its associated facilities, including construction locations, the operational Open Cycle facility, transmission line, water supply pipeline, wastewater pipeline, gas receiving station, and worker accommodation camps. It will also include an assessment of jobs, land acquisition and other social issues associated with the 13 affected local communities and persons affected by the Project (PAPs), including, the status of livelihood restoration after temporary economic displacement along the river water pipeline. Ramboll Environ will review the management of construction and operations phase environmental and social risks and impacts, as defined in the construction and operations phase Environmental and Social Management Plans (ESMPs), which are designed to ensure that the project complies with Applicable E&S Standards and with commitments made in the project ESIA. We will also assess the status of gaps identified during previous monitoring visits (November 2016 and July 2017) and of items noted in the environmental and social action plan (ESAP).
Objectives:	The primary objectives of the monitoring visit, as defined in the scope of work, are to: a) verify that the Project complies with the Applicable Standards in relation to the environment, local communities, health and safety; b) identify any E&S, labour, and Health and Safety (H&S) related impacts, risks or liabilities which have not been properly mitigated or controlled in the Project; c) assess the technical adequacy and the implementation status of the Project's environmental, safety and social management systems, its management plans and other related documents; and d) recommend any necessary additional preventive and corrective actions to address any ESHS related impacts, risks or liabilities identified to achieve compliance to the Lenders safeguard policy requirements.
Components of Monitoring Plan:	The monitoring visit will include: 1. Inspections of the main construction site including: a) Storage of hazardous materials (e.g. oil, fuel, paint and chemicals), including above ground and below ground bulk storage tanks and other storage areas. b) Storage of construction materials such as aggregate and cement. c) Equipment and materials laydown areas. d) Concrete batching plant (if still operational) e) Waste handling and storage areas. f) Wastewater treatment facilities (e.g. septic tanks, and silt trap serving vehicle wash facility). g) Management of surface water runoff. h) Measures to control dust and noise. i) Site medical facilities. j) Project vehicles and designated vehicle routes. 2. Inspect open cycle power plant, including:

	a) General site inspection b) Hazardous materials storage c) Waste storage d) Process wastewater treatment and disposal e) Domestic sewage treatment and disposal f) Stormwater drainage g) Water treatment plant (demineralised water) 3. Inspection of raw water intake station, process water discharge point, pipeline right of way, transmission towers, and gas receiving station. 4. Social-related activities off-site, including: a) Return visits to inspect the JEM, Bedok and Min Dharma workers' accommodation camps. b) Return visits to the three squatters (shop and tea house owners) along the river water pipeline route. c) Visits to random PAPs (farmers) who were temporarily economically displaced along the river water pipeline route. d) Visits to landowners by the T-line towers in Sa Khar village. e) Visit to some community investment projects including the school in Tha Pyay Thar Village. f) Meeting with the District Hospital Administrator (previously met in November 2016). g) Meeting with the District Police Chief (previously met in November 2016). 5. Discussions with Sembcorp and contractor personnel focussing on the following areas: a) Senior Management Representatives i. Overview of the construction project, including key environmental and social challenges ii. Overview of any ongoing E&S issues with the affected local communities, including details on the final land acquisition process iii. Status of issues raised in our last monitoring report iv. Legal compliance status b) Project HSE Manager i. Roles and responsibilities of the HSSE staff ii. Site specific HSSE procedures iii. Simultaneous operations (SIMOPS) issues iv. Management of change v. Commissioning issues (e.g. management of hydrotest water) vi. Review internal audit and inspection programme and reports vii. Environmental monitoring data (including CEMS and ambient air quality)

	viii. Non-conformities and corrective actions ix. External reporting of environmental and social issues (e.g. reporting to government agencies and lenders) x. Status of ESAP issues c) Human Resources Manager i. Workforce update (for PCo, contractors and subcontractors with breakdown: local vs. external workers, male and female) ii. Update on the HSSE training programme iii. Update on any improvements at workers' accommodation camps iv. Update on OHS practices and any incidents since the last visit v. Update on the workers' grievance mechanism, need to better document the procedure and register review d) Community Development and Community Relations Managers i. Update on community development and community/stakeholder engagement activities since the last visit ii. Update on the Community Grievance Mechanism, new external grievance committee and register review e) Construction workers (discussions during site inspection) i. HSSE awareness ii. Knowledge of grievance mechanism 6. Assess compliance with a sample of requirements in the following environmental and social management plans: a) Air quality and dust management plan b) Plant and vehicle management and maintenance plan c) Traffic management plan d) Noise and vibration management plan e) Surface water management plan f) Soil and groundwater management plan g) Biodiversity management plan h) Waste management plan (hazardous and non-hazardous) i) Oil and chemical spill contingency management plan j) Emergency preparedness and response plan k) Occupational health and safety management plan l) Stakeholder engagement plan m) Community development plan n) Community health management plan o) Workers' accommodation management plan p) Local recruitment and procurement management plan q) Project influx management plan

	r) HSSE training plan s) Cultural heritage management plan t) Security management plan
Monitoring Schedule:	**Tuesday 16th January 2018:** • 09:00 – 09:30 Opening meeting • 09:30 – 12:30 Company presentation on HSSE management, including project status, overview of operations phase ESMP, HSSE performance, review of any incidents since the last monitoring visit, trends from recent audits and inspections, status of issues raised in the last monitoring report, issues raised in recent monthly reports, etc. • 12:30 – 13:30 Lunch • 13:30 – 17:30 Alan Fowler to complete site inspection of the construction site and operational areas • 13:30 – 17:30 Sharon Maharg to meet with the following: o Htoon - to obtain an update on the final land acquisition and compensation activities; o Human Resources Manager; o Community Development/Community Relations Managers. • Sharon Maharg to conduct with PCo staff random interviews with subcontractors' workers to judge their knowledge of Sembcorp's labour policies and procedures. **Wednesday 17th January 2018 (Alan Fowler and Sharon Maharg):** • 09:00 – 13:00 Off-site visits, including the gas receiving station, raw water intake station, process water discharge point, pipeline RoW (including visits to squatters along route), transmission towers, all workers' accommodation camps, visits to random PAPs (farmers) who were temporarily economically displaced along the river water pipeline route, and visits to landowners by the T-line towers in Sa Klar village, visits to select community investment projects, and meetings with the District Hospital Administrator and Police Chief. We propose two site visit groups (Group 1: Alan and Sharmini, and Group 2: Sharon and Sandi) • 13:00 – 14:00 Lunch • 14:00 – 16:00 Off-site visits (continued) • 16:00 – 17:30 Follow-up discussions in site office **Thursday 18th January 2018:** • 09:00 – 12:00 Alan Fowler to meet Project HSE Manager • 09:00 – 12:00 Sharon Maharg to conduct any social site visits that were not able to be conducted the prior day • 12:00 – 13:00 Preparation for closing meeting • 13:00 – 14:00 Lunch • 14:00 – 15:00 Closing meeting then transfer to Nyaung-U airport
Reporting:	A draft report will be available four weeks after the monitoring visit.

Travel & Accommodation Arrangements:	• Thursday 11th January: Sharon Maharg departs New York at 20:15 on SQ 25, arriving in Singapore at 06:50 on Saturday 13th January. • Saturday 13th January: Sharon Maharg departs Singapore at 07:55 on SQ 998, arriving in Yangon at 09:20. Overnight (two nights) in Winner Inn, Yangon. • Friday 12th January: Alan Fowler departs London at 08:45 on LH 2471 / LH 9790, arriving in Singapore at 07:00 on Saturday 13th January. • Monday 15th January: Alan Fowler departs Singapore at 07:55 on SQ 998, arriving in Yangon at 09:20. Alan Fowler and Sharon Maharg depart Yangon at 15:30 on K7 206, arriving in Nyaung-U at 16:50. Car transfer to Myingyan. Overnight in Myingyan Hotel, Myingyan. • Tuesday 16th January: Meetings and site inspections. Overnight in Myingyan Hotel, Myingyan. • Wednesday 17th January: Meetings and site inspections. Overnight in Myingyan Hotel, Myingyan. • Thursday 18th January: Meetings and site inspections, then transfer to Nyaung U. Sharon Maharg departs Nyaung-U at 18:35 on K7 236/237, arriving in Yangon at 20:35. Overnight in Winner Inn, Yangon. Alan Fowler transfers from Nyaung U to Nay Pyi Taw by car. • Friday 19th January: Sharon Maharg departs Yangon at 10:25 on SQ 997, arriving in Singapore at 15:10. • Saturday 27th January: Sharon Maharg departs Singapore at 23:55 on SQ 26, arriving in New York at 11:15 on 28th January. Ramboll Environ has arranged a vehicle and driver for all transfers in Myingyan.
Health & Safety Considerations:	• The Ramboll Environ team will take safety shoes. • H&S induction and site-specific PPE to be provided to monitoring team on arrival. • A Ramboll Environ Travel Health and Safety Plan (THASP) has been approved.
Other Issues:	Alan Fowler (UK passport holder), Sharon Maharg (US passport holder), and Sharmini Ramanathan (Malaysian passport holder) will apply for a business visa prior to arrival in Myanmar.

APPENDIX 3 – PROJECT DOCUMENTATION PROVIDED FOR REVIEW

Ref no.	Document Title	Organisation	Date	Document Number
1	Environmental and Social Impact Assessment (ESIA) Report for Myingyan IPP Project – 225 MW Gas-fired Combined Cycle Power Station	ERM-Siam Co Ltd.	November 2015	Revision no. 1
2	Environmental and Social Impact Assessment (ESIA) Report for Myingyan IPP Project – 225 MW Gas-fired Combined Cycle Power Station	ERM-Siam Co Ltd.	August 2016	Revision no. 2
3	Myingyan IPP Project – 225 MW Gas-fired Combined Cycle Power Station. Project ESMP Implementation (PowerPoint).	Sembcorp	2016	-
4	Myingyan IPP Project – 225 MW Gas-fired Combined Cycle Power Station. Project HSSE Induction for Visitors (PowerPoint)	Sembcorp	April 2017	-
5	Project Air Quality & Dust Management Plan	Sembcorp	24 January 2018	SDC-HSSEC-SMP-001
6	Project Plant and Vehicle Management and Maintenance Plan	Sembcorp	24 January 2018	SDC-HSSEC-SMP-002
7	Project Traffic Management Plan	Sembcorp	24 January 2018	SDC-HSSEC-SMP-003
8	Project Noise and Vibration Management Plan	Sembcorp	14 July 2016	SDC-HSSEC-SMP-004
9	Project Surface Water Management Plan	Sembcorp	24 January 2018	SDC-HSSEC-SMP-005
10	Project Soil & Groundwater Management Plan	Sembcorp	24 January 2018	SDC-HSSEC-SMP-006
11	Project Biodiversity Management Plan	Sembcorp	20 July 2016	SDC-HSSEC-SMP-007
12	Project Waste Management Plan (Hazardous & Non-Hazardous)	Sembcorp	24 January 2018	SDC-HSSEC-SMP-008
13	Project Oil & Chemical Spill Contingency Management Plan	Sembcorp	24 January 2018	SDC-HSSEC-SMP-010
14	Project Emergency Preparedness and Response Plan	Sembcorp	19 July 2016	SDC-HSSEC-SMP-011
15	Project Occupational Health and Safety Management Plan	Sembcorp	20 July 2016	SDC-HSSEC-SMP-012
16	Stakeholder Engagement Plan	Sembcorp	-	SCI-HSSEC-SMP-001
17	Community Development Plan	Sembcorp	-	SCI-HSSEC-SMP-002
18	Project Community Health Management Plan	Sembcorp	20 July 2016	SDC-HSSEC-SMP-015
19	Workers' Accommodation Management Plan	Sembcorp	10 June 2016	SDC-HSSEC-SMP-016
20	Project Local Recruitment and Procurement Management Plan	Sembcorp	10 July 2016	SDC-HSSEC-SMP-017

Ref no.	Document Title	Organisation	Date	Document Number
21	Project Influx Management Plan	Sembcorp	10 July 2016	SDC-HSSEC-SMP-018
22	Project HSSE Training Plan	Sembcorp	20 July 2016	SDC-HSSEC-SMP-019
23	Project Cultural Heritage Management Plan	Sembcorp	20 September 2016	SDC-HSSEC-SMP-020
24	Project Security Management Plan	Sembcorp	20 July 2016	SDC-HSSEC-SMP-021
25	Resettlement Framework (RF). MYA: Myingyan Natural Gas Power Project. October, 2015.	Sembcorp	2015	-
26	Code of Business Conduct. MYA: Myingyan Natural Gas Power Project.	Sembcorp	Undated	-
27	External Noise Monitoring Results	Sembcorp	September and December 2017	-
28	Project HSE Plan	Sembcorp	1 April 2016	-
29	JEM chemical inventory list, 2017	JEM	Undated	-
30	Water Treatment Plant – Process Flow Diagram	Sembcorp	06 January 2017	PA-1612-PC-02
31	Water Treatment Plant – Water Balance Diagram	Sembcorp	06 January 2017	PA-1612-PC-01
32	Water Treatment System Design	Sembcorp	Undated	-
33	Sembcorp Group HSE Incident Classification, Investigation and Reporting Procedure	Sembcorp	4 December 2013	G/014-5/GHSE
34	Minutes of the Myingyan Project HSSE Committee Meeting	Sembcorp	4 December 2017	
35	Management of Change Procedure	Sembcorp	15 November 2011	CMS-SCI(SUT)-AM(Opt)-001
36	Monthly HSSE Reports	Sembcorp	November and December 2017	-
37	Grievance Committee Procedures	Sembcorp	-	
38	Global Human Resources Policy	Sembcorp	-	