Bestwise - SFK Joint Venture

Contract No. DE/2018/17 Enhancement of Deodourisation System at Stonecutters Island Sewage Treatment Works

Monthly Environmental Monitoring and Audit Report September 2020

(Version 1.0)

Certified By

(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

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Our Reference EC/AFK/DC/jl/T261332/ 22.01/L-1467

Contract No. DE/2018/17 - Enhancement of Deodourisation System at Stonecutters Island Sewage Treatment Works

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Condition 4.4 – Monthly EM&A Report for September 2020 (no. 13) Version 1.0

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Bv Post

Dear Sir.

I refer to the captioned Monthly EM&A Report for September 2020 (version 1.0) submitted by ET on 14 October 2020 via email. In accordance with Condition 4.4 of Environmental Permit No. EP-322/2008/G, I hereby verify the captioned Monthly EM&A Report.

Yours faithfully

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By email By email

TABLE OF CONTENTS

		Page
EX	ECUTIVE SUMMARY	1
	Introduction	
	Environmental Monitoring Works	
	Environmental Licenses and Permits	
	Environmental Mitigation Implementation Schedule	
	Summary of Complaints and Prosecutions	
	Future Key Issues:	
1.	INTRODUCTION	4
	Background	4
	Project Organizations	
	Construction Programme	5
	Summary of EM&A Requirements	
2.	AIR QUALITY	7
	Monitoring Requirements	7
	Monitoring Locations	
	Monitoring Equipment	
	Monitoring Parameters, Frequency and Duration	7
	Monitoring Methodology and QA/QC Procedure	
	Results and Observations	8
3.	NOISE	9
	Monitoring Requirements	
	Monitoring Locations	
	Monitoring Equipment	
	Monitoring Parameters, Frequency and Duration	
	Results and Observations	
4.	ENVIRONMENTAL AUDIT	
4.		
	Site Audits	
	Implementation Status of Environmental Mitigation Measures	
	Status of Environmental Licensing and Permitting	
	Status of Waste Management	
	Implementation Status of Event Action Plans	12
	Summary of Complaints and Prosecutions	12
5.	FUTURE KEY ISSUES	13
	Key Issues for the Coming Month	13
	Monitoring Schedule for the Next Month	
	Construction Program for the Next Month	13
6.	CONCLUSIONS AND RECOMMENDATIONS	14
	Conclusions	
	Recommendations for next reporting month	14

LIST OF TABLES

Table I	Summary Table for Non-compliance Recorded in the Reporting Month
Table II	Summary Table for Key Information in the Reporting Month
Table 1.1	Key Project Contacts
Table 2.1	Locations for Air Quality Monitoring
Table 2.2	Impact Dust Monitoring Parameters, Frequency and Duration
Table 2.3	Summary of 1-hour and 24-hour TSP Monitoring Result in Reporting Month
Table 3.1	Locations for Noise Monitoring Stations
Table 3.2	Noise Monitoring Parameters, Frequency and Duration
Table 3.3	Summary the Noise Monitoring Results in Reporting Month
Table 4.1	Observations of Site Audit
Table 4.2	Summary of Environmental Licence / Permit for DE/2018/17

LIST OF FIGURES

Figure 1	General Location Plan of the Project and
	Locations of Air Quality and Noise Monitoring Stations
Figure 2	ET's Organization Chart

LIST OF APPENDICES

A	Action and Limit Levels for Air Quality and Noise
В	Summary of Exceedance
C	Site Audit Summary
D	Summary of Amount of Waste Generated
E	Event Action Plans
F	Environmental Mitigation Implementation Schedule (EMIS)
G	Complaint Log
H	Construction Programme

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ABBREVIATION AND ACRONYM

AL Levels Action and Limit Levels

DSD Drainage Services Department

E / ER Engineer/Engineer's Representative

EIA Environmental Impact Assessment

EM&A Environmental Monitoring and Audit

EMIS Environmental Mitigation Implementation Schedule

EP Environmental Permit

EPD Environmental Protection Department

ET Environmental Team

HVS High Volume Sampler

IEC Independent Environmental Checker

RE Resident Engineer

RH Relative Humidity

QA/QC Quality Assurance / Quality Control

SLM Sound Level Meter

WMP Waste Management Plan

SCISTW Stonecutters Island Sewage Treatment Works

HATS Stage 2A Harbour Area Treatment Scheme Stage 2A

BSJV Bestwise - SFK Joint Venture

iii Wellab

EXECUTIVE SUMMARY

Introduction

- 1. This is the 13rd Monthly Environmental Monitoring and Audit (EM&A) Report prepared by Wellab Limited for DSD Contract No. DE/2018/17 "Enhancement of Deodourisation System at SCISTW" (The Project) which documents the key information of EM&A and environmental monitoring works undertaken by other Contracts at the SCISTW under HATS Stage 2A with the same Environmental Permit (Permit No. EP-322/2008/G).
- 2. The site activities undertaken in the reporting month included:

DOU1

• Completion of draw pit DP3 beside DOU1 PS

DOU2

• Complete of loading Test of DOU2A-P6

DOU₅

• MCC Room construction at DOU5 PS in progress

<u>E&M</u>

- Isolation Device for Effluent Drop Shaft
 - Installation (PST No.47/49, 48/50, 51/53, 52/54, 9/11, 17/19, 22/24, 40/42, 21/23, 36/38, 44/46, 30/32)
 - Smoke Test Completed (PST No. 52/54, 51/53, 47/49, 48/50)
 - Concrete repairing
- Sealant Installation
 - PST1/3 PST52/54, FT5, FT6, and MDC (completed)
- DOU System of DOU1R, DOU1PS, DOU4PS
 - Mechanical installation in progress
- DOU System of DOU5PS and DOU2PS
 - FAT completed
- Air Relief Duct
 - Material deliver on site
- MgO Impregnated Activated Carbon
 - 45.5 ton delivered on site
 - 14.8 ton used in SCISTW

Environmental Monitoring Works

- 3. The environmental monitoring works of the Project were conducted by the ET for Contract DC/2009/10, at the SCISTW under HATS 2A with the same Environmental Permit. The monitoring results were checked and reviewed and the site audits were conducted once per week. The implementation of the Environmental Mitigation Measures, Event Action Plans and Environmental Complaint Handling Procedures were also checked.
- 4. Summary of the non-compliance of the reporting month is tabulated in **Table I**.

Table I Summary Table for Non-compliance Recorded in the Reporting Month

Monitored	Monitoring	Downwoton	No. of Ex	ceedance	No. of Exceedance Due to the Project		Action
Ву	Station	Parameter	Action Level	Limit Level	Action Level	Limit Level	N/A
	AM6a	1-hr TSP	0	0	0	0	N/A
	Alvioa	24-hr TSP	0	0	0	0	N/A
	NM5	Noise	0	0	0	0	N/A
DC/2009/10	NM6	Noise	0	0	0	0	N/A
DC/2007/10	1.	1-hr TSP	0	0	0	0	N/A
	AM7	24-hr TSP	0	0	0	0	N/A
	AMQ	1-hr TSP	0	0	0	0	N/A
	AM8	24-hr TSP	0	0	0	0	N/A

1-hour TSP Monitoring

5. All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

24-hour TSP Monitoring

6. All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise

7. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Environmental Licenses and Permits

8. Licenses/Permits granted to the Project include the Environmental Permit (EP); Billing account for Disposal of Construction Waste, Registered as Chemical Waste Producer, Construction Noise Permits and Water Discharge License.

Environmental Mitigation Implementation Schedule

9. According to the EIA Report Section 3.74, 4.56 and 13.44, air quality, noise and landscape and visual would be the key environmental issues and mitigation measures shall be implemented during the construction phase. Details of the implementation of mitigation measures are provided in the **Appendix F.**

Key Information in the Reporting Month

10. Summary of key information in the reporting month is tabulated in **Table II**.

Table II Summary Table for Key Information in the Reporting Month

Event	Evei	nt Details	Action Taken Status		Remark	
Event	Number	Nature	Action Taken	Status	Kemark	
Complaint received	0		N/A	N/A		
Status of submissions under EP	1	Monthly EM&A Report for August 2020	Submitted on 10 September 2020	N/A		

Event	Ever	nt Details	Action Taken Status	Status	Domonis	
Event	Number	Nature	Action Taken	Status	Remark	
Notifications of any summons & prosecutions received	0		N/A	N/A		

Summary of Complaints and Prosecutions

- 11. No environmental complaint and prosecution was received for the Project in the reporting month.
- 12. There were no environmental complaint and prosecution received since the commencement of the Project. The Complaint Log is presented in **Appendix G.**

Future Key Issues:

13. Major site activities for the coming two months include:

Construction of DOU1 PS

- Complete MCC room and chemical compound
- Construct cable ducts and draw pits
- Installation of water main

•

Construction of DOU2 PS

- Construction of MCC Room of DOU2B
- Installation of water main

Construction of DOU4 PS

- Construct cable ducts and draw pits
- Installation of water main

Construction of DOU5 PS

- Construct cable ducts and draw pits
- Installation of water main

E&M

- Delivery of deodourisation system of DOU2PS and DOU5PS
- LVSB of DOU(s) system
- DOU1, DOU2 upgrade HMI touchscreen
- Mechanical installation of deodourisation system of DOU1R, DOU4PS and DOU1PS
- Install sealant
- Install isolation device for effluent drop shaft (and concrete repairing)
- Installation of air relief duct
- 14. The environmental concerns in the coming months are mainly on construction waste, chemical and general refuse storage; dust generated from the excavated dusty materials.

Monthly EM&A Report – September 2020

1. INTRODUCTION

Background

- 1.1 The Project 'Enhancement of Deodourisation System at SCISTW' under Contract No: DE/2018/17 mainly comprises the following major works:
 - Construction of foundation for enhanced deodourisation system;
 - Design, supply, installation, testing and commissioning of enhanced deodourisation systems and associated accessories;
 - Enhancement of isolation devices at chemically enhanced primary treatment (CEPT) tanks;
 - Modification of air ducts at CEPT tanks;
 - Enhancement of sealing performance of existing covers for CEPT tanks; and
 - Any associated works as necessary to complete the above items.
- 1.2 The general location plan of the Project is shown in **Figure 1**.
- 1.3 The Project is under Harbour Area Treatment Scheme (HATS) Stage 2A and is a designated project with Register No.: AEIAR-121/2008. The current works under the Project at SCISTW for HATS 2A are covered by the Environmental Permit (Permit No. EP-322/2008/G), which was issued on 9th May 2014 by the Environmental Protection Department (hereinafter called EPD) to the Drainage Services Department (hereinafter called the DSD) as the Permit Holder.
- 1.4 The environmental monitoring works in the Project were covered by the ET for the Contract: DC/2009/10.
- 1.5 Bestwise SFK Joint Venture (hereafter called the BSJV) was commissioned by the DSD to undertake the construction of the Contract No. DE/2018/17 "Enhancement of Deodourisation System at SCISTW". The date of commencement of construction of the Project is 9th July 2019.
- 1.6 Wellab Limited was commissioned by BSJV to undertake the Environmental Monitoring and Audit (EM&A) works for the project and was appointed as the Environmental Team (ET) of the Project under Condition 2.1 of the EP. The date of commencement of EM&A works is 2nd September 2019. The Project cover the environmental monitoring works at monitoring stations AM6a, AM7, AM8, NM5 and NM6.
- 1.7 This is the 13rd monthly EM&A report summarizing the EM&A works conducted for the Project in September 2020.

Project Organizations

1.8 The contacts of the Project are shown in **Table 1.1** and the organization chart of ET for Contract is shown in **Figure 2**.

Table 1.1 Key Project Contacts

Party	Role	Name	Position	Phone No.
Ove Arup & Partners Hong Kong Ltd	Project Management's Representative	Mr. Edmund Chow	Senior Resident Engineer	2370 4311

Party	Role	Name	Position	Phone No.
	Coordinator	Mr. Kevin Cheung	Resident Engineer	3925 6506
		Dr. Priscilla Choy	ET Leader	2151 2089
Wellab	Environmental Team	Mr. Howard Chan	Project Coordinator & Audit Team	2151 2073
Mott MacDonald	Independent Environmental Checker	Dr. Anne Kerr	Independent Environmental Checker	2828 5757
Bestwise –		Mr. Ken Chan	Site Agent	2620 0070
SFK Joint Venture	Contractor	Mr. Leo Leung	Environmental Officer	2620 0070

Construction Programme

1.9 The site activities undertaken in the reporting month included:

DOU1

• Completion of draw pit DP3 beside DOU1 PS

DOU₂

• Complete of loading Test of DOU2A-P6

DOU5

• MCC Room construction at DOU5 PS in progress

E&M

- Isolation Device for Effluent Drop Shaft
 - Installation (PST No.47/49, 48/50, 51/53, 52/54, 9/11, 17/19, 22/24, 40/42, 21/23, 36/38, 44/46, 30/32)
 - Smoke Test Completed (PST No. 52/54, 51/53, 47/49, 48/50)
 - Concrete repairing
- Sealant Installation
 - PST1/3 PST52/54, FT5, FT6, and MDC (completed)
- DOU System of DOU1R, DOU1PS, DOU4PS
 - Mechanical installation in progress
- DOU System of DOU5PS and DOU2PS
 - FAT completed
- Air Relief Duct
 - Material deliver on site
- MgO Impregnated Activated Carbon
 - 45.5 ton delivered on site
 - 14.8 ton used in SCISTW

Summary of EM&A Requirements

- 1.10 The EM&A programme requires construction phase monitoring for air quality and construction noise, landscape and visual and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:
 - All monitoring parameters;
 - Action and Limit levels for all environmental parameters;
 - Event Action Plans;

- Environmental mitigation measures, as recommended in the project EIA study final report; and
- Environmental requirements in contract documents.
- 1.11 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in **Section 4** of this report.
- 1.12 This report presents the monitoring results, observations, locations, equipment, period, for required monitoring parameter namely air quality, noise and audit works conducted for the Project in September 2020. For the methodology and QA/QC procedures of the monitoring parameters, please refer to the monthly report for Contract DC/2009/10.

2. AIR QUALITY

Monitoring Requirements

2.1 1-hour and 24-hour TSP monitoring were conducted to monitor the air quality. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

2.2 Three designated monitoring stations, AM6a, AM7 and AM8 were selected for impact dust monitoring for the Project. **Table 2.1** describes the air quality monitoring locations, which are also depicted in **Figure 1**.

Table 2.1 Locations for Air Quality Monitoring

Monitoring Station	Monitored by	Location of Measurement
AM6a		Works site boundary
AM7	DC/2009/10	North West Kowloon Sewage Pumping Station
AM8		Block A of Government Dockyard

Monitoring Equipment

2.3 The details of the monitoring equipment and copies of the calibration certificates used during the reported month could be referred to Section 2.3 and **Appendix B** of the monthly report of Contract DC/2009/10.

Monitoring Parameters, Frequency and Duration

2.4 **Table 2.2** summarizes the monitoring parameters and frequencies of impact dust monitoring for the whole construction period. The air quality monitoring schedule for the reporting period could be found in **Appendix** C in the monthly report for the Contract DC/2009/10.

Table 2.2 Impact Dust Monitoring Parameters, Frequency and Duration

Monitoring Station	Parameter	Period	Frequency
All monitoring	1-hour TSP	0700-1900 hrs	3 times/ every 6 days
locations	24-hour TSP	0000-2400 hrs	once in every 6 days

Monitoring Methodology and QA/QC Procedure

2.5 The monitoring methodology and QA/QC procedures are presented in Section 2.5 – 2.15 of monthly report for Contract DC/2009/10.

Results and Observations

2.6 **Table 2.3** summarizes the monitoring results at AM6a, AM7 and AM8 in the reporting month.

Table 2.3 Summary of 1-hour and 24-hour TSP Monitoring Result in the Reporting Month

Air Quality Monitoring Station	Average μg/m³	Range μg/m³	Action Level µg/m³	Limit Level µg/m³			
		1 hour TSP					
AM6a	63	19 – 156	346				
AM7	110.5	60.9 – 179.3	322	500			
AM8	97.0	48.1 - 178.2	307				
	24 hours TSP						
AM6a	38	13 - 63	196				
AM7	47	29 - 88	207	260			
AM8	33	16 - 73	158				

- 2.7 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in **Appendix B.**
- 2.8 All 24-hr TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in **Appendix B.**
- 2.9 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results could be referred to **Appendix D** of monthly report of Contract DC/2009/10.
- 2.10 According to field observations during site inspection, the identified dust sources at the monitoring stations were mainly from loadings of material, vehicles movement, dust generated from the excavated dusty materials and construction works of other Contract and this Contract in the site.

3. NOISE

Monitoring Requirements

3.1 Two noise monitoring stations, namely NM5 and NM6 was designated in the EM&A Manual for impact monitoring. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.2 Noise monitoring was conducted at two designated monitoring stations as listed in **Table 3.1**, which are also depicted in **Figure 1**.

Table 3.1 Location of Noise Monitoring Stations

Monitoring Station	Monitored By	Location of Measurement
NM5	DC/2000/10	Near FSD Diving Rescue and Training Centre
NM6	DC/2009/10	Customs' Marine Base (Block H of Government Dockyard Rooftop)

Monitoring Equipment

3.3 The details of the monitoring equipment and copies of the calibration certificates used in the impact noise monitoring programme could be referred to Section 3.4 and **Appendix B** of the monthly report of Contract DC/2009/10.

Monitoring Parameters, Frequency and Duration

- 3.4 **Table 3.2** summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule could be found in **Appendix C** in the monthly report for the Contract DC/2009/10.
- 3.5 As advised by the Contractor, no construction work under Contract DE/2018/17 was conducted in the restricted hours during the reported month.

Table 3.2 Noise Monitoring Parameters, Frequency and Duration

Monitoring Stations	Parameter	Period	Frequency
NM5	$\begin{array}{c} L_{eq}(30 \text{ min.}) \\ dB(A) \end{array}$	0700-1900 hrs. on weekdays	Once per week
NM6			Monitoring to be conducted when construction works were to be carried out

Monitoring Methodology and QA/QC Procedures

3.6 The monitoring methodology and QA/QC procedure could be referring to Section 3.6 - 3.9 of the monthly report for Contract DC/2009/10.

Results and Observations

3.7 **Table 3.3** summarizes the monitoring results at NM5 and NM6 in the reporting month.

Table 3.3 Summary the Noise Monitoring Results in Reporting Month

For the time period 0700-1900 hrs. on weekdays			
Noise Monitoring	Range, dB(A)	Limit Level	
Station	L _{eq} (30 min.)	dB(A)	
NM5	57.7 – 60.4	75.0	
NM6	54.8 – 62.5	75.0	

- 3.8 The construction noise monitoring at the designated location was conducted by the ET of Contract DC/2009/10 as scheduled in the reporting month. The monitoring results and graphical presentations could be referred to **Appendix E** of the monthly report for Contract DC/2009/10.
- 3.9 1900-2300 hours noise monitoring was not conducted in the reporting month as there were no construction works during the period of restricted hours.
- 3.10 No Action/Limit Level exceedance was recorded in the reporting month. Summary of exceedance is presented in **Appendix B**.
- 3.11 The major noise sources identified at the designated noise monitoring stations were vehicle movement and construction equipment, as well as construction activities from other and this Contract in Stonecutters Island STW.

4. ENVIRONMENTAL AUDIT

Site Audits

- 4.1 Site audits were conducted on a weekly basis to monitor the implementation of environmental management practices and mitigation measures at the site area by the Contractor.
- 4.2 Site inspections were undertaken to ensure and check that the implementation and maintenance of mitigation measures for Air Quality, Noise, Water Quality, Waste Management, Landscape and Visual are being properly carried out in the reporting month in accordance to section 14.1 of the EM&A Manual. No non-compliance was observed during the site inspections.
- 4.3 The summaries of site audits are attached in **Appendix C**.

Implementation Status of Environmental Mitigation Measures

- 4.4 Details of the implementation of mitigation measures are provided in the **Appendix F**.
- 4.5 During the weekly environmental site inspections in the reporting period, no non-conformance was identified. The observations of the site audit for the Projects are summarized in **Table 4.1**.

Table 4.1 Observations of Site Audit

Parameters	Ref. Number	Observations	Follow Up Action	
700010 201		Wheel wash facility should be provided at the site exits.	Wheel wash facility was provided at the site exits.	
Quality	200910-R03	Vehicles should be cleaned of earth, mud and debris before leaving the site.	Vehicles were cleaned before leaving the site.	
	200827-R01	Excavated dusty materials should be	Excavated dusty materials was cleared.	
Air Quality	200903-R01	covered by impervious materials.	1 1	Excavated dusty materials were covered by impervious materials.
	200924-R01	The road around site entrance should be kept clean and free from dust.	The road around site entrance was kept clean and free from dust.	
Waste/	200903-R02	D: 4 1 111 11 16	Item was remarked as 200910-R02.	
Chemical	200910-R02	Drip trays should be provided for	Item was remarked as 200916-R01.	
Management	200916-R01	chemical storage.	Chemical was removed.	
Landscape and Visual	N/A	There was no observation in the reporting month.	N/A	
Noise	N/A	There was no observation in the reporting month.	N/A	
Permit/ Licenses	N/A	There was no observation in the reporting month.	N/A	

Review of Environmental Monitoring Procedures

4.6 The monitoring works conducted by Contract DC/2009/10's ET were reviewed at a regular basis to ensure the monitoring procedures were carried out properly.

Status of Environmental Licensing and Permitting

4.7 All permits/licenses obtained for the Contract DE/2018/17 are summarized in **Table 4.2**.

Table 4.2	Summary of Environmental Licence / Permit for DE/2018/17				
Reference	Valid Period		Details	Status	
Number	From	To	Details	Status	
Vater Discha	irge License				
VT00035198- 2019	15/1/2020	31/1/2025	The application was approved on 15-1-2020.	Valid	

W lid Registered Chemical Waste Producer WPN5213-N/A N/A The application was approved on 14-8-2019. Valid 269-B2565-01

CSW03680 6/8/2019 N/A The application was approved on 6-8-2019. Valid Notification of Works Under APCO

447348 N/A N/A Notice form received by EPD on 17-7-2019. N/A Construction Noise Permit GW-27/3/2020 26/9/2020 The application was approved on 13-3-2020. Expired RW0092-20

Status of Waste Management

4.8 The amount of wastes generated by the activities of the Project in the reporting month is shown in **Appendix D**.

Implementation Status of Event Action Plans

Billing Account for Disposal of Construction Waste

4.9 The Event Action Plans for air quality and noise are presented in **Appendix E.**

1-hr TSP

4.10 No Action/Limit Level exceedance was recorded.

24-hr TSP

4.11 No Action/Limit Level exceedance was recorded.

Construction Noise

4.12 No Action/Limit Level exceedance was recorded.

Landscape and Visual

4.13 No major deficiency was recorded.

Summary of Complaints and Prosecutions

- 4.14 No environmental complaint and prosecution was received for the Project in the reporting month.
- 4.15 There were no environmental complaint and prosecution received since the commencement of the Project. The Complaint Log is presented in Appendix G.

5. FUTURE KEY ISSUES

Key Issues for the Coming Month

- 5.1 Key environmental issues in the coming month include:
 - Storage of chemicals/fuel and chemical waste/waste oil on-site;
 - Leakage of oil from equipment;
 - Dust generation should be mitigated by adequate water spraying, especially in dry days;
 - Stockpile should be properly covered by tarpaulin or impervious materials to mitigate dust generation;
 - Noise from operation of equipment and machinery on-site;
 - Silty surface runoff generated from the site area; and
 - Silt and dust getting into the public area by the leaving site vehicles at the site exits without adequate wheel washing facilities.

Monitoring Schedule for the Next Month

5.2 The tentative environmental monitoring schedule over the next month could be found in the **Appendix C** of the monthly report of Contract DC/2009/10.

Construction Program for the Next Month

5.3 The tentative construction program is provided in **Appendix H**.

Enhancement of Deodourisation System at SCISTW Monthly EM&A Report – September 2020

6. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

6.1 Environmental monitoring and audit works were performed in the reporting month and all monitoring results were checked and reviewed.

1-hour TSP Monitoring

6.2 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

24-hour TSP Monitoring

6.3 All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise Monitoring

6.4 All Construction Noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Environmental Audit

6.5 Environmental site audits were conducted as weekly basis in the reporting month. No non-compliance was recorded.

Complaint and Prosecution

6.6 No environmental complaint and prosecution was received in the reporting month.

Recommendations for next reporting month

6.7 The following recommendations were made for the next report month:

Air Quality

- To provide adequate water spray on site;
- To mitigate dust generation by covering stockpile with tarpaulin;
- To regularly maintain the machinery and vehicles on site; and
- To follow up any exceedance caused by the construction works.
- Non-Road Mobile Machinery (NRMM) labels must be demonstrated on the registered equipment for inspection.

Noise

- To inspect the noise sources inside the site;
- To follow up any exceedance caused by the construction works;
- To space out noisy equipment and position the equipment as far away as possible from sensitive receivers;
- To provide temporary noise barriers for operations of noisy equipment near the noise sensitive receivers in an appropriate location;
- To provide adequate lubricant on mechanical equipments to reduce frictional noise; and

• To well maintain the mechanical equipments / machineries to avoid abnormal noise nuisance.

Water Quality

- To identify any discharge of wastewater from the construction site;
- To provide adequate temporary drainage system with adequate capacity;
- To provide adequate wastewater treatment facilities to treat the wastewater generated during construction works and heavy rain;
- To properly cover the stockpile to prevent the generation of surface runoff; and
- To avoid water accumulation on site and carry out larviciding against mosquito breeding for stagnant water when mosquito larvae are observed.

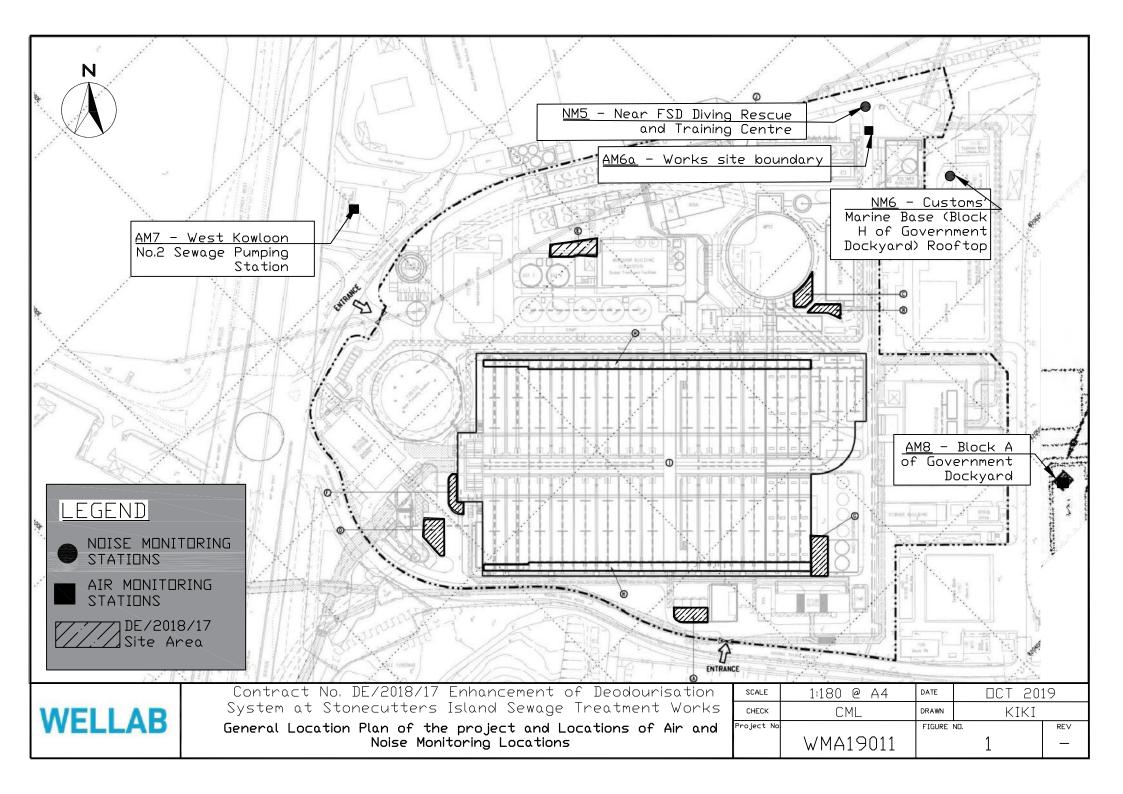
Waste/Chemical Management

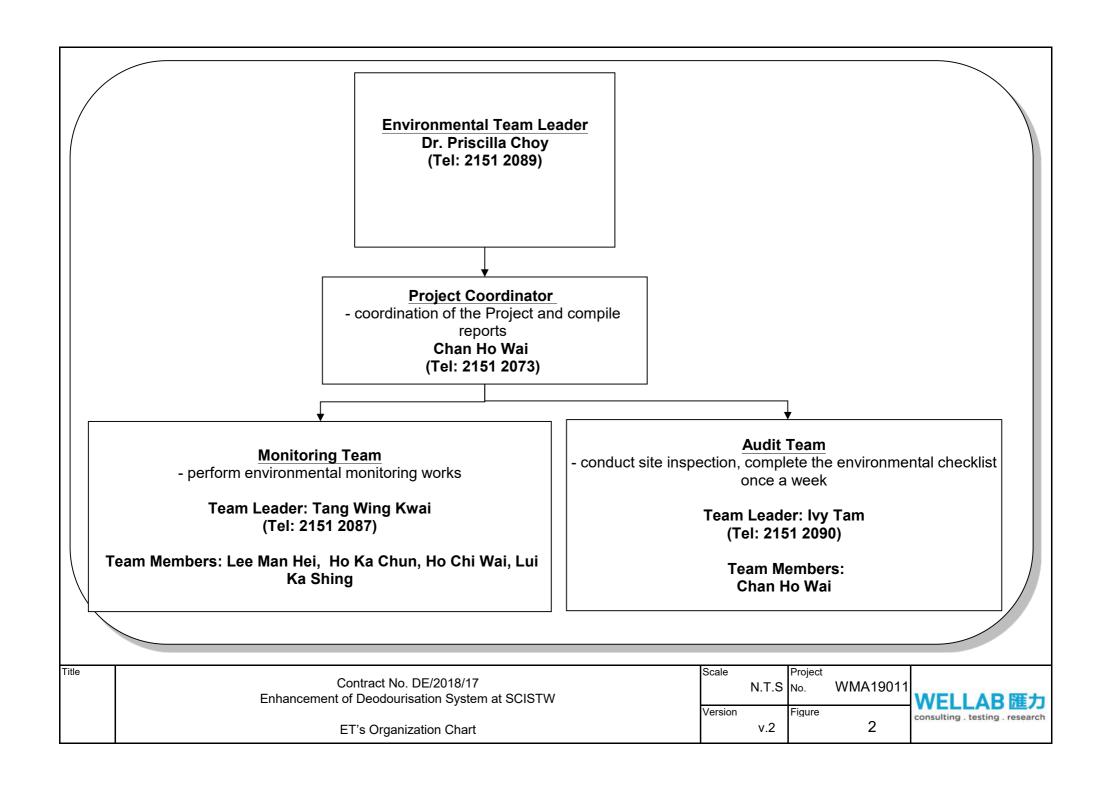
- To provide proper rubbish bins / skips for waste collection;
- To check for any accumulation of wasted materials or rubbish on site;
- To provide adequate chemical waste storage area on site;
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the equipment; and
- To avoid improper handling or storage of oil drum and cement on site.

Landscape and Visual

- To erect and maintain the protection fence around the retained trees; and
- To avoid any construction materials being placed inside the tree protection zone.

FIGURES





APPENDIX A
ACTION AND LIMIT LEVELS FOR AIR
QUALITY AND NOISE QUALITY

Appendix A Action and Limit Levels

Table A-1 Action and Limit Levels for 1-Hour TSP and 24-Hour TSP

Manitoning Stations	Action Level (μg/m³)		Limit Level (μg/m³)	
Monitoring Stations	1-hour	24-hour	1-hour	24-hour
AM6a	346	196	500	260
AM7	322	207	500	260
AM8	307	158	500	260

Table A-2 Action and Limit Level for Construction Noise

Monitoring Stations	Time Period	Action Level	Limit Level in dB(A)
	0700-1900 hours on normal weekdays	When one documented complaint is received	75
NM5 NM6	Evening Time of normal weekdays and General Holidays: All days during the evening (1900 to 2300 hours), and general holidays (including Sundays) during the daytime and evening (0700 to 2300 hours)	N/A	70 ⁽¹⁾

Notes: If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

APPENDIX B SUMMARY OF EXCEEDANCE

APPENDIX B – SUMMARY OF EXCEEDANCE

Reporting Month: September 2020

- a) Exceedance Report for 1-hr TSP (NIL)
- b) Exceedance Report for 24-hr TSP (NIL)
- c) Exceedance Report for Construction Noise (NIL)

APPENDIX C SITE AUDIT SUMMARY

Record Summary of Environmental Site Inspection

Inspection Information

Checklist Reference Number	200903
Date	3 September 2020 (Thursday)
Time	10:15-11:30

Ref. No.	Non-Compliance	Related Item No.	
	None identified	-	

i
- Andrews

	Name	Şignature ,	Date
Recorded by	Howard Chan	Xavar	3 September 2020
Checked by	Dr. Priscilla Choy	Wife	3 September 2020

Record Summary of Environmental Site Inspection

Inspection Information

Checklist Reference Number	200910
Date	10 September 2020 (Thursday)
Time	10:15-11:30

Ref. No.	Non-Compliance	Related Item No.
_	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	Part A - Water Quality	
200910-R01	Wheel wash facility should be provided at the site exits.	A13
200910-R03	Vehicles should be cleaned of earth, mud and debris before leaving the site.	A12
	Part B - Landscape and Visual	
	No environmental deficiency was identified during the site inspection.	
	Don't Co. Also On with	
	Part C - Air Quality	
	No environmental deficiency was identified during the site inspection.	
	Dest D. Weller	
	Part D – Noise	
	No environmental deficiency was identified during the site inspection.	
	Part E – Waste / Chemical Management	
200910-R02		E7ii
Z00910-R02	Drip trays should be provided for chemical storage.	E/H
	Part F - Permit / Licence	
	No environmental deficiency was identified during the site inspection.	
	1 - 110 Off Thomas and the same	
	Others	
	No environmental deficiency was identified during the site inspection.	
	140 Chynolinicital detectory was identified during the site inspection.	
	Remark:	
	Follow-up on previous audit session:	
	On previous audit session (Ref No. 200903), item 200903-R02 was remarked	
	as 200910-R02, follow-up action is needed to be reviewed. Other item was	
	rectified by the contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	Lovard	10 September 2020
Checked by	Dr. Priscilla Choy		10 September 2020

Record Summary of Environmental Site Inspection

Inspection Information

Checklist Reference Number	200916
Date	16 September 2020 (Wednesday)
Time	15:00-16:00

_	Ref. No.	Non-Compliance	Related Item No.
	-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	Part A - Water Quality	
	No environmental deficiency was identified during the site inspection.	
	 Part B - Landscape and Visual No environmental deficiency was identified during the site inspection. 	
	Part C - Air Quality	
	No environmental deficiency was identified during the site inspection.	
	Part D - Noise	
	No environmental deficiency was identified during the site inspection.	
	Part E – Waste / Chemical Management	West-page-
200916-R01	Drip trays should be provided for chemical storage.	E7ii
	Part F - Permit / Licence	
	No environmental deficiency was identified during the site inspection.	
	Others	
	No environmental deficiency was identified during the site inspection.	
	Remark:	
	Follow-up on previous audit session:	
	On previous audit session (Ref No. 200910), item 200910-R02 was remarked as 200916-R01, follow-up action is needed to be reviewed. Other items were	
	rectified by the contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	2 aucin	17 September 2020
Checked by	Dr. Priscilla Choy	WIL	17 September 2020

WELLAB WMA19011 200916_audit

Record Summary of Environmental Site Inspection

Inspection Information

Checklist Reference Number	200924
Date	24 September 2020 (Thursday)
Time	10:15-11:30

Ref. No.	Non-Compliance	Related Item No.	
<u>.</u>	None identified	-	

Ref. No.	Remarks/Observations	Related Item No.
	Part A - Water Quality	
	No environmental deficiency was identified during the site inspection.	
	Part B - Landscape and Visual No environmental deficiency was identified during the site inspection.	
	Part C - Air Quality	
200924-R01	The road around site entrance should be kept clean and free from dust.	C3
	Part D – Noise	
	No environmental deficiency was identified during the site inspection.	A Prince Control of the Control of t
	Part E – Waste / Chemical Management	1
	No environmental deficiency was identified during the site inspection.	
	Part F - Permit / Licence	
	No environmental deficiency was identified during the site inspection.	
	Others	
	No environmental deficiency was identified during the site inspection.	
	Remark:	
	Follow-up on previous audit session:	Tanana and a second
	On previous audit session (Ref No. 200916), all environmental deficiency was rectified by the contractor.	

	Name	Signature	Date
Recorded by	Ella Ho	ANT-	25 September 2020
Checked by	Dr. Priscilla Choy	NT.	25 September 2020

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Record Summary of Environmental Site Inspection

Inspection Information

Checklist Reference Number	200930
Date	30 September 2020 (Wednesday)
Time	10:15-11:30

Ref. No.	Non-Compliance	Related Item No.
_	None identified	_

Ref. No.	Remarks/Observations	Related Item No.
	Part A - Water Quality	
	No environmental deficiency was identified during the site inspection.	
	Part B – Landscape and Visual No environmental deficiency was identified during the site inspection.	
	Part C - Air Quality	3
	No environmental deficiency was identified during the site inspection.	
	Part D – Noise	
	No environmental deficiency was identified during the site inspection.	
	Part E – Waste / Chemical Management	
	No environmental deficiency was identified during the site inspection.	
	Part F - Permit / Licence	AAAAA AAAAA
	No environmental deficiency was identified during the site inspection.	
	Others	
	No environmental deficiency was identified during the site inspection.	
	Remark:	·
	Follow-up on previous audit session:	
	On previous audit session (Ref No. 200924), all environmental deficiency was rectified by the contractor.	

	Name	Şignature /	Date		
Recorded by	Howard Chan	Mayard	5 October 2020		
Checked by	Dr. Priscilla Choy	No.	5 October 2020		

WELLAB WMA19011 200930_audit

APPENDIX D SUMMARY OF AMOUNT OF WASTE GENERATED

Name of Department:	DSD	_	C	Contract No. :	DE/2018/17		
_	Mo	onthly Summary Waste Flow Table for	2020	(year)			

	Actual Quantities of inert C&D Materials Generated Monthly				Actual Quantities of C&D Materials Generated Monthly						
Month	Total Quantity	Hard Rock and Large	Reused in the	Reused in	Disposed as	Imported	Metals	Paper/	Plastics	Chemical	Other, e.g.
	Generated	Broken Concrete	Contract	other Projects	Public Fill	Fill		cardboard	(see Note 3)	Waste	general refuse
	(In '000m ³)	(In '000m ³)	$(\text{In '}000\text{m}^3)$	(In '000m ³)	(In '000m ³)	(In '000m ³)	(In '000kg)	(In '000kg)	(In '000kg)	(In '000kg)	(In '000m ³)
Jan	0.209	0.016	0.000	0.000	0.209	0.000	0.000	0.284	0.000	0.000	0.001
Feb	0.210	0.045	0.000	0.000	0.210	0.000	0.000	0.583	0.000	0.000	0.001
Mar	0.436	0.025	0.000	0.000	0.436	0.000	0.000	0.000	0.000	0.000	0.003
Apr	0.431	0.098	0.000	0.000	0.431	0.000	0.000	0.576	0.000	0.000	0.000
May	0.314	0.000	0.000	0.000	0.314	0.000	0.000	0.000	0.000	0.000	0.010
June	0.098	0.000	0.000	0.000	0.098	0.000	0.000	0.656	0.000	0.000	0.007
Sub-total	1.699	0.184	0.000	0.000	1.699	0.000	0.000	2.099	0.000	0.000	0.022
July	0.112	0.000	0.000	0.000	0.112	0.000	0.730	0.000	0.000	0.000	0.007
Aug	0.238	0.000	0.000	0.000	0.238	0.000	0.000	0.639	0.000	0.000	0.002
Sep	0.605	0.000	0.000	0.000	0.605	0.000	0.000	0.000	0.000	0.000	0.003
Oct											
Nov											
Dec											
Total	2.653	0.184	0.000	0.000	2.653	0.000	0.730	2.738	0.000	0.000	0.033
Total since commence ment of project	3.159	0.399	0.000	0.000	3.159	0.000	12.260	4.326	0.000	0.000	0.035

Notes:

- (1) The performance targets are given in PS Clause 25.37(14).
- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (4) The conversion factor for tonne to m³ for inert C&D materials is 1.9 tonne/m³.
- (5) The conversion factor for tonne to m³ for general refuse is 1.8 tonne/m³.

APPENDIX E EVENT ACTION PLANS

APPENDIX E – Event / Action Plans

Table E-1 Event / Action Plan For Air Quality

ACTION				
EVENT	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for	1. Identify source, investigate the	1. Check monitoring data	1. Notify Contractor.	1. Rectify any unacceptable
one sample	causes of exceedance and propose	submitted by ET;		practice;
	remedial measures;	2. Check Contractor's working		2. Amend working methods if
	2. Inform IEC and ER;	method.		appropriate.
	3. Repeat measurement to confirm			
	finding;			
	4. Increase monitoring frequency to			
	daily.			
2. Exceedance for	1. Identify source;	1. Check monitoring data	1. Confirm receipt of notification	1. Submit proposals for
two or more	2. Inform IEC and ER;	submitted by ET;	of failurein writing;	remedial to ER within 3
consecutive	3. Advise the ER on the	2. Check Contractor's working	2. Notify Contractor;	working days of notification;
samples	effectiveness of the proposed	method;	3. Ensure remedial measures	2. Implement the agreed
	remedial measures;	3. Discuss with ET and Contractor	properly implemented	proposals;
	4. Repeat measurements to confirm	on possible remedial measures;		3. Amend proposal if
	findings;	4. Advise the ET on the		appropriate
	5. Increase monitoring frequency to	effectiveness of the		
	daily;	proposed remedial measures;		
	6. Discuss with IEC and Contractor	5. Supervise Implementation of		
	on remedial	remedial measures.		
	actions required;			
	7. If exceedance continues, arrange			
	meeting with IEC and ER;			
	8. If exceedance stops, cease			
	additional monitoring			

	ACTION					
EVENT	ET	IEC	ER	CONTRACTOR		
LIMIT LEVEL						
1. Exceedance for	1. Identify source, investigate the	1. Check monitoring data	1. Confirm receipt of	1. Take immediate action to		
one sample	causes of exceedance and propose	submitted by ET;	notification of failure in	avoid further exceedance;		
	remedial measures;	2. Check Contractor's working	writing;	2. Submit proposals for		
	2. Inform ER, Contractor and EPD;	method;	2. Notify Contractor;	remedial actions to IEC		
	3. Repeat measurement to confirm	3. Discuss with ET and Contractor	3. Ensure remedial measures	within 3 working days of		
	finding;	on possible remedial measures;	properly implemented	notification;		
	4. Increase monitoring frequency to	4. Advise the ER on the		3. Implement the agreed		
	daily;	effectiveness of the proposed		proposals;		
	5. Assess effectiveness of	remedial measures;		4. Amend proposal if		
	Contractor's remedial actions and	5. Supervise implementation of		appropriate		
	keep IEC, EPD and ER informed of	remedial measures				
	the results.					
2. Exceedance for	1. Notify IEC, ER, Contractor and	1. Check monitoring data	1. Confirm receipt of	1. Take immediate action to		
two or more	EPD;	submitted by ET;	notification of failure in	avoid further exceedance;		
consecutive	2. Identify source;	2. Check Contractor's working	writing;	2. Submit proposals for		
samples	3. Repeat measurement to confirm	method;	2. Notify Contractor;	remedial actions		
	findings;	3. Discuss amongst ER, ET, and	3. In consolidation with the	to IEC within 3 working days		
	4. Increase monitoring frequency to	Contractor on the potential	IEC, agree with the Contractor	of notification;		
	daily;	remedial actions;	on the remedial measures to	3. Implement the agreed		
	5. Carry out analysis of Contractor's	4. Review Contractor's remedial	be implemented;	proposals;		
	working procedures to determine	actions whenever necessary to	4. Ensure remedial measures	4. Resubmit proposals if		
	possible mitigation to be	assure their effectiveness and	properly implemented;	problem still not under		

	ACTION			
EVENT	ET	IEC	ER	CONTRACTOR
	implemented;	advise the ER accordingly;	5. If exceedance continues,	control;
	6. Arrange meeting with IEC and	5. Supervise the implementation of	consider what portion of the	5. Stop the relevant portion of
	ER to discuss the remedial actions	remedial measures.	work is responsible and	works as determined by the
	to be taken;		instruct the Contractor to stop	ER until the exceedance is
	7. Assess effectiveness of		that portion of work until the	abated
	Contractor's remedial actions and		exceedance is abated.	
	keep IEC, EPD and ER informed of			
	the results;			
	8. If exceedance stops, cease			
	additional monitoring			

Table E-2 Event / Action Plan For Construction Noise

	ACTION				
EVENT	ET	IEC	ER	CONTRACTOR	
Action Level	1. Notify ER, IEC and Contractor;	1. Review the investigation	1. Confirm receipt of	1. Submit noise mitigation	
being	2. Carry out investigation;	results submitted by the ET;	notification of failure in writing;	proposals to IEC and ER;	
exceeded	3. Report the results of investigation to	2. Review the proposed	2. Notify Contractor;	2. Implement noise mitigation	
	the IEC, ER and Contractor;	remedial measures by the	3. In consolidation with the IEC,	proposals	
	4. Discuss with the IEC and	Contractor and advise the ER	agree with the Contractor on the		
	Contractor on remedial measures	accordingly;	remedial measures to be		
	required;	3. Advise the ER on the	implemented;		
	5. Increase monitoring frequency to	effectiveness of the proposed	4. Supervise the implementation of		
	check mitigation effectiveness	remedial measures	remedial measures		
Limit Level	1. Inform IEC, ER, Contractor and	1. Discuss amongst ER, ET,	1. Confirm receipt of	1. Take immediate action to	
being	EPD;	and	notification of failure in writing;	avoid further exceedance;	
exceeded	2. Repeat measurements to confirm	Contractor on the potential	2. Notify Contractor;	2. Submit proposals for	
CACCCACA	findings;	remedial actions;	3. In consolidation with the	remedial actions to IEC	
	3. Increase monitoring frequency;	2. Review Contractor's	IEC, agree with the Contractor on	and ER within 3 working	
	4. Identify source and investigate the	remedial	the remedial measures to be	days of notification;	
	cause of exceedance;	actions whenever necessary	implemented;	3. Implement the agreed	
	5. Carry out analysis of Contractor's	to assure their effectiveness	4. Supervise the implementation of	proposals;	
	working procedures;	and advise the ER accordingly.	remedial measures;	4. Submit further proposal if	
	6. Discuss with the IEC, Contractor		5. If exceedance continues,	problem still not under	
	and ER on remedial measures		consider stopping the Contractor to	control;	
	required;		continue working on that portion of	5. Stop the relevant portion	
	7. Assess effectiveness of Contractor's		work which causes the exceedance	of works as instructed by	
	remedial actions and keep IEC, EPD		until the exceedance is abated	the ER until the exceedance is	
	and ER informed of the results;			abated	
	8. If exceedance stops, cease				
	additional monitoring				

APPENDIX F ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

APPENDIX F IMPLEMENTATION SCHEDULE OF ENVIRONMENTAL MITIGATION MEASURES (EMIS)

EIA	Recommended Mitigation Measures	Location of the measure	Implementation Status
Ref.			
A	Air Quality		
3.74	Skip hoist for material transport should be totally enclosed by impervious sheeting.	All construction sites	۸
	Vehicle washing facilities should be provided at every vehicle exit point.		*
	The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore.		۸
	Where a site boundary adjoins a road, streets or other areas accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the entire length except for a site entrance or exit.		N/A
	Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.		۸
	Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines.		۸
	Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.		*
	Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.		۸
	Imposition of speed controls for vehicles on unpaved site roads. Ten kilometers per hour is the recommended limit.		۸
	Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the 3 sides.		۸
	Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.		*
3.74	Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.	All construction sites	۸

EIA	Recommended Mitigation Measures	Location of the measure	Implementation Status
Ref.			
В	Airborne Noise		
4.56-	Use of quiet PME, movable barriers and acoustic mats.	All construction sites	٨
4.61			
4.67	Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program.		۸
	Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program.		۸
	Mobile plant, if any, shall be sited as far away from NSRs as possible.		٨
	Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum.		۸
4.67	Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.		۸
	Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities.		۸
С	Water Quality		
6.349 to 6.375	Construction Site Runoff and General Construction Activities The mitigation measures as outlined in the ProPECC PN 1/94 Construction Site Drainage should be adopted where applicable.	All construction sites	*
6.376	Effluent Discharge There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the WPCO license which is under the ambit of regional office (RO) of EPD. Minimum distances of 100 m should be maintained between the discharge points of construction site effluent and the existing saltwater intakes.		^
6.377	Accidental Spillage of Chemicals Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General)		^

EIA	Recommended Mitigation Measures	Location of the measure	Implementation Status
Ref.			
	Regulation should be observed and complied with for control of chemical wastes.		
6.378	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.		٨
6.379	 Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. 		۸
6.380	Construction Works in Close Proximity of Storm Drains or Seafront:	All construction sites	۸
	 To minimize the potential water quality impacts from the construction works located at or near any watercourse, the practices outlined below should be adopted where applicable. The use of less or smaller construction plants may be specified to reduce the disturbance to the storm water courses or marine environment. Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any water courses during carrying out of the construction works. Stockpiling of construction materials and dusty materials should be covered and located away from any water courses. Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers. Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable. Proper shoring may need to be erected in order to prevent soil/mud from slipping into the storm culvert or sea. 		

EIA	Recommended Mitigation Measures	Location of the measure	Implementation Status
Ref.			
D	Waste Management		
9.107	Reusable steel or concrete panel shutters, fencing and hoarding and signboard should be used as a preferred alternative to items made of wood, to minimize wastage of wood. Attention should be paid to WBTC No. 19/2001 - Metallic Site Hoardings and Signboards to reduce the amount of timber used on construction sites. Metallic alternatives to timber are readily available and should be used rather than new timber. Precast concrete units should be adopted wherever feasible to minimize the use of timber formwork.	All construction sites	۸
9.109	All waste materials should be segregated into categories covering: • excavated materials suitable for reuse on-site; • excavated materials suitable for public filling facilities; • remaining C&D waste for landfill; • chemical waste; and • general refuse for landfill.	All construction sites	^
9.113	Sort C&D waste from demolition of existing facilities to recover recyclable portions such as metals. Segregation and storage of different types of waste in different containers, skips or		٨
	stockpiles to enhance reuse or recycling of materials and their proper disposal.		^
	Encourage collection of aluminum cans, PET bottles and paper by providing separate labeled bins to enable these wastes to be segregated from other general refuse generated by the work force.		۸
	Any unused chemicals or those with remaining functional capacity shall be recycled.		۸
	Proper storage and site practices to minimize the potential for damage or contamination of construction materials.		*
9.115	Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.		۸
	Training of site personnel in proper waste management and chemical waste handling procedures.		۸
9.115	Develop and provide toolbox talk for on-site sorting of C&D materials to enhance worker's awareness in handling, sorting, reuse and recycling of C&D materials.		۸
	Provision of sufficient waste disposal points and regular collection of waste.		۸
	Regular cleaning and maintenance programme for drainage systems, sumps and oil		۸

EIA	Recommended Mitigation Measures	Location of the measure	Implementation Status
Ref.			
	,		
	interceptors.		
9.125	Bentonite slurries used in diaphragm wall construction should be reconditioned and reused wherever practicable. The disposal of residual used bentonite slurry should follow the good practice guidelines stated in ProPECC PN 1/94 "Construction Site Drainage".	All construction sites	۸
9.131	Adequate number of portable toilets at temporary works areas or the PTWs to ensure that sewage from site staff would be properly collected.		۸
9.133	General refuse should be stored in enclosed bins, skips or compaction units separating from C&D material and disposed of at designated landfill.		۸
9.135	The recyclable component of the municipal waste generated by the workforce, such as aluminum cans, paper and cleansed plastic containers should be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste should be set up by the Contractor. The Contractor should also be responsible for arranging recycling companies to collect these materials.		۸
9.137	If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.		۸
9.142	Prior to excavation of the marine deposit layer, the deposit should be tested in accordance with the ETWB TC(W) No. 34/2002 and the results should be presented in a Preliminary Sediment Quality Report. The marine deposit should be disposed of at the disposal site designated by the Marine Fill Committee (MFC) or Director of Environmental Protection (DEP) depending on the test results.		N/A

EIA	Recommended Mitigation Measures	Location of the measure	Implementation Status
Ref.			
E	Terrestrial Ecology		
10.94	To implement effective noise mitigation measures as recommended in Section 4 of EIA.	All construction sites	N/A
10.95	Dust control practices such as regular watering, complete coverage of any aggregate or dusty material storage piles, and re-schedule of dusty activities during high-wind conditions as well as other measures recommended in Section 3 of EIA, should be implemented.		۸
10.96	Fences/hoardings should be erected and installed along the boundary of the works areas.		٨
10.97	Standard good site practices as suggested in Section 10 of EIA should be implemented.		N/A
10.98	Provision of proper drainage system and runoff control measures such as use of sand/silt traps, oil/grease separators, sedimentation tanks, etc.		۸
F	Landscape and Visual		
Table 13.7	Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical.	All construction sites	۸
	Existing trees to be retained on site should be carefully protected during construction.		٨
	Trees unavoidably affected by the works should be transplanted where practical.		٨
	Compensatory tree planting should be provided to compensate for felled trees.		٨
	Control of night-time lighting.		۸
Table	Erection of decorative screen hoarding compatible with the surrounding setting.	All construction sites	N/A
13.7			
G	Marine Ecology		
11.137	To minimize the potential indirect impacts on water quality from construction site runoff and various construction activities, the practices outlined in ProPECC PN 1/94 Construction Site Drainage should be adopted.	All construction sites	۸
Н	Hazard to Life		
14A.201	Limiting use of cranes in terms of locations, lifting height, swing angle and setting up safety zone.	Exact location will be determined on construction site by the engineer	۸

Remarks:	^ Compliance of mitigation measure;
	N/A Not Applicable;
	* Recommendation was made during site audit but
	improved/rectified by the contractor.
	# Recommendation was made during site audit and to be
	improved / rectified by the contractor.
	X Non-compliance of mitigation measure;
	Non-compliance but rectified by the contractor;

APPENDIX G COMPLAINT LOG

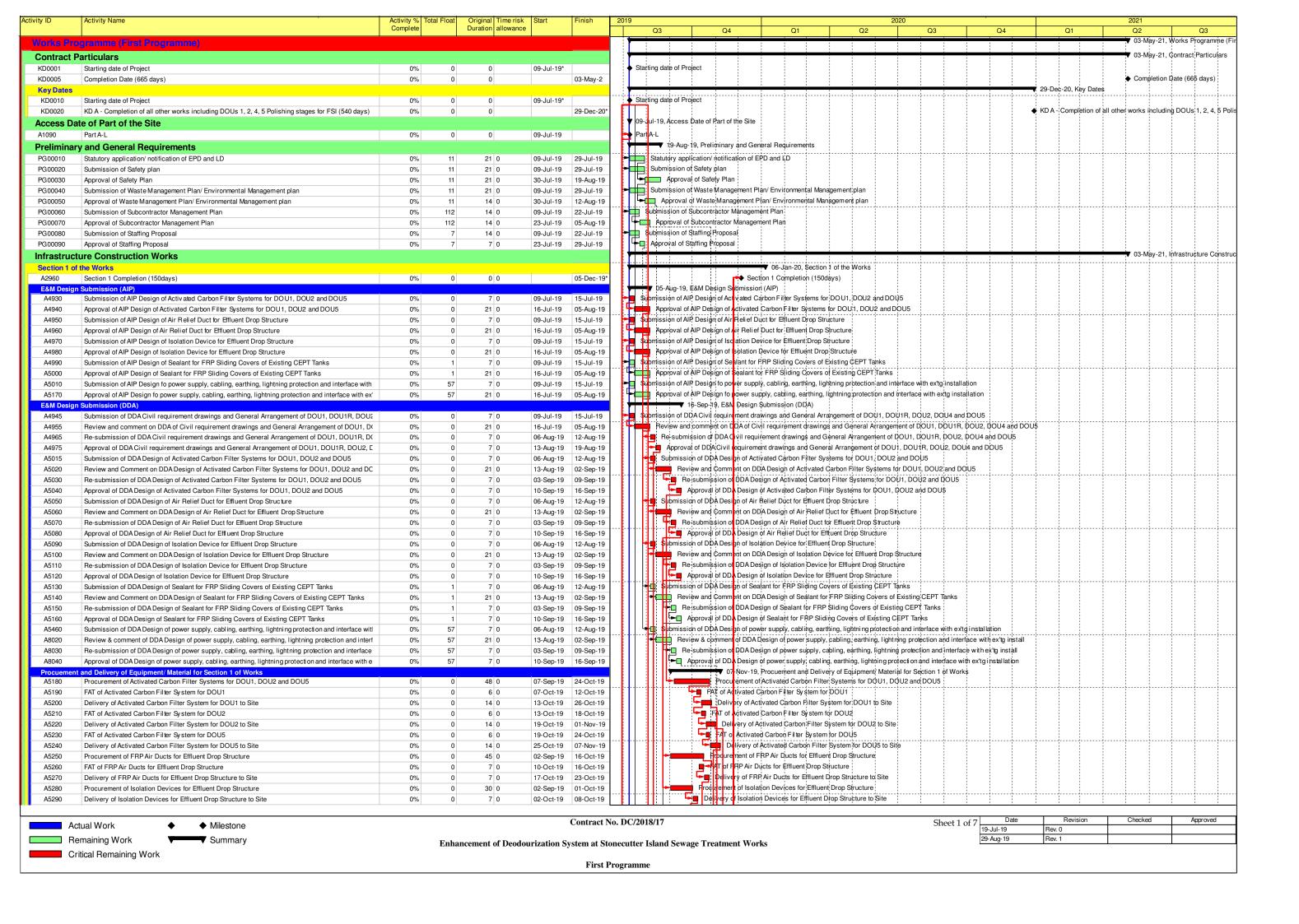
APPENDIX G - COMPLAINT LOG

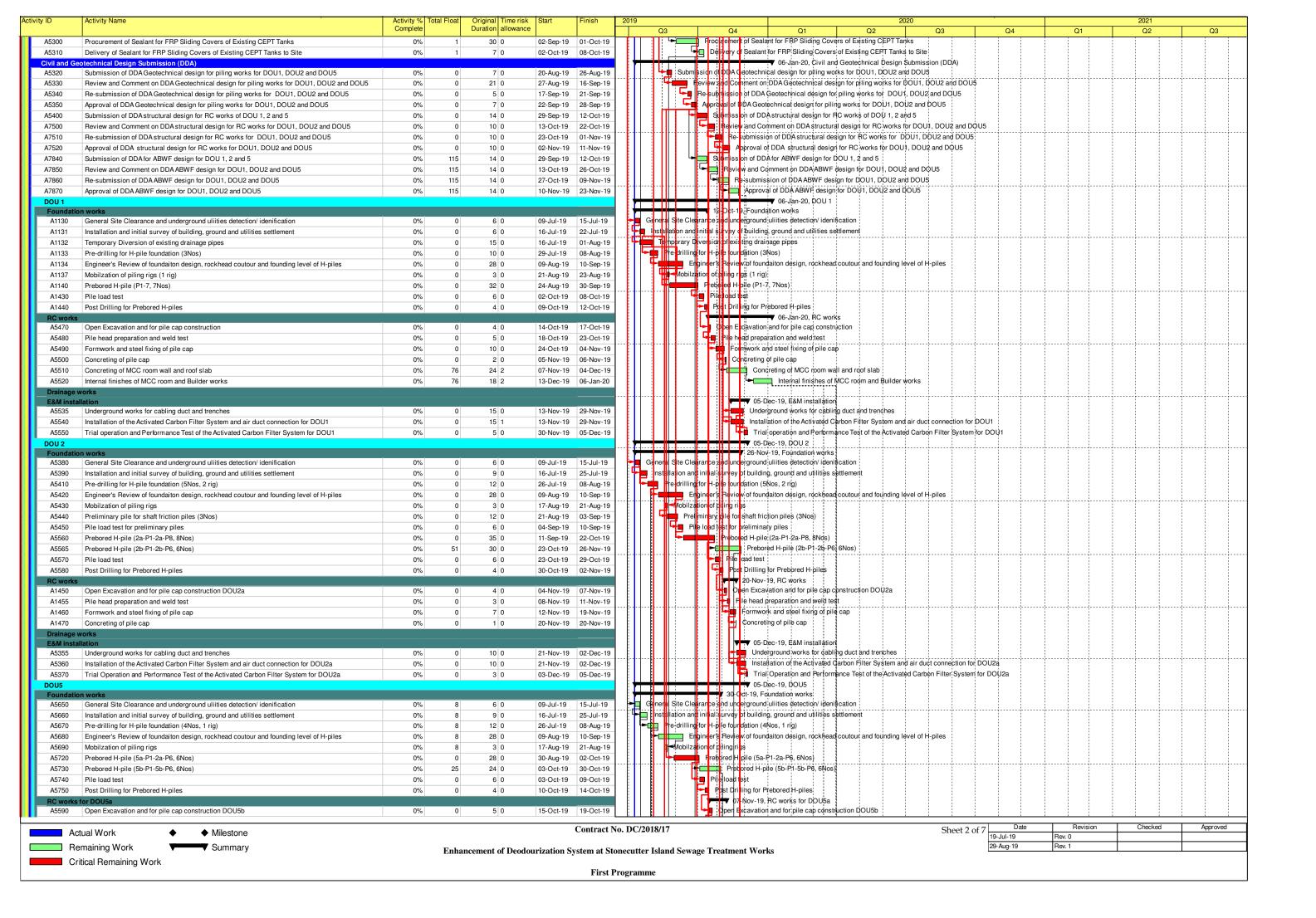
Reporting Month: September 2020

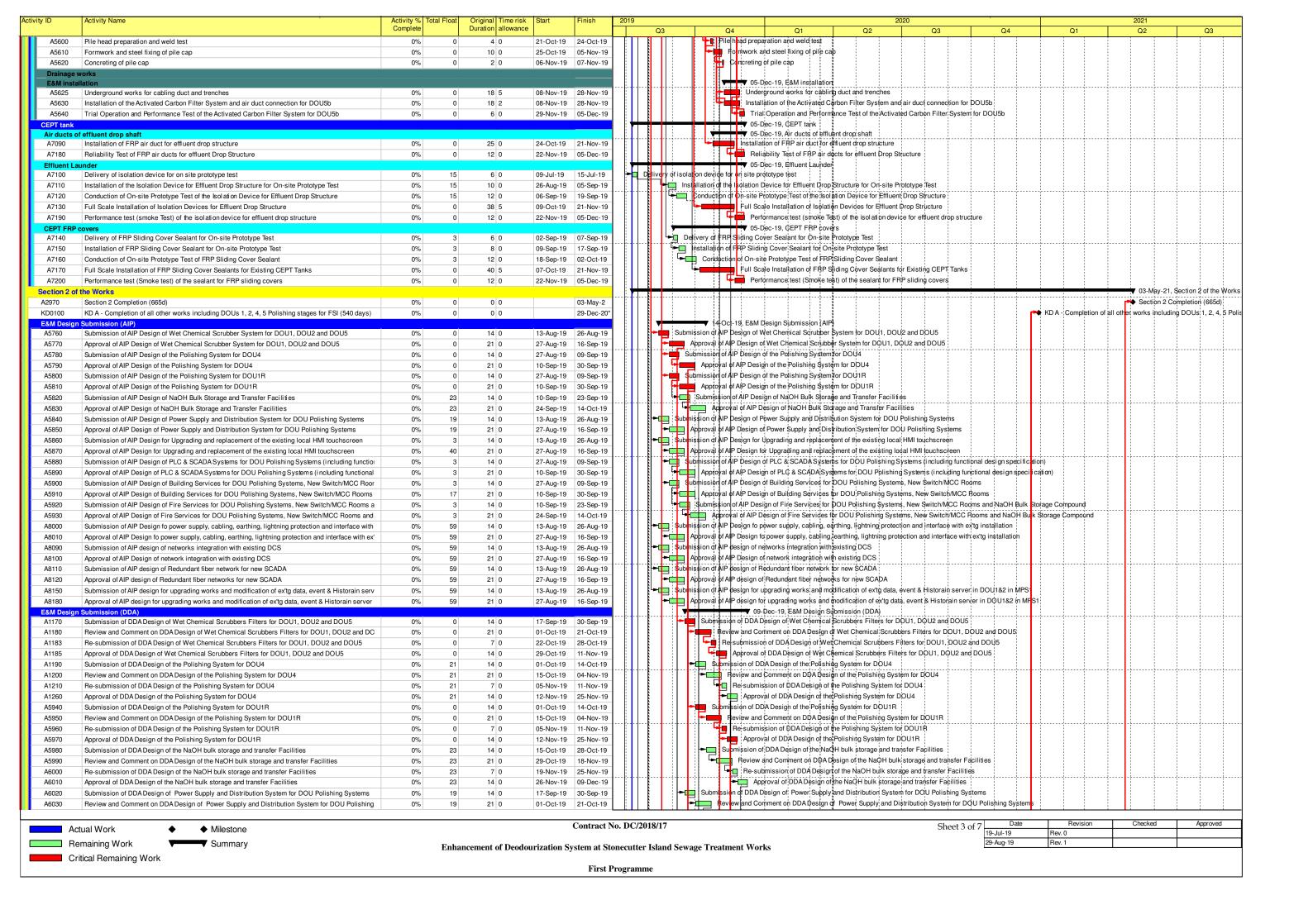
Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

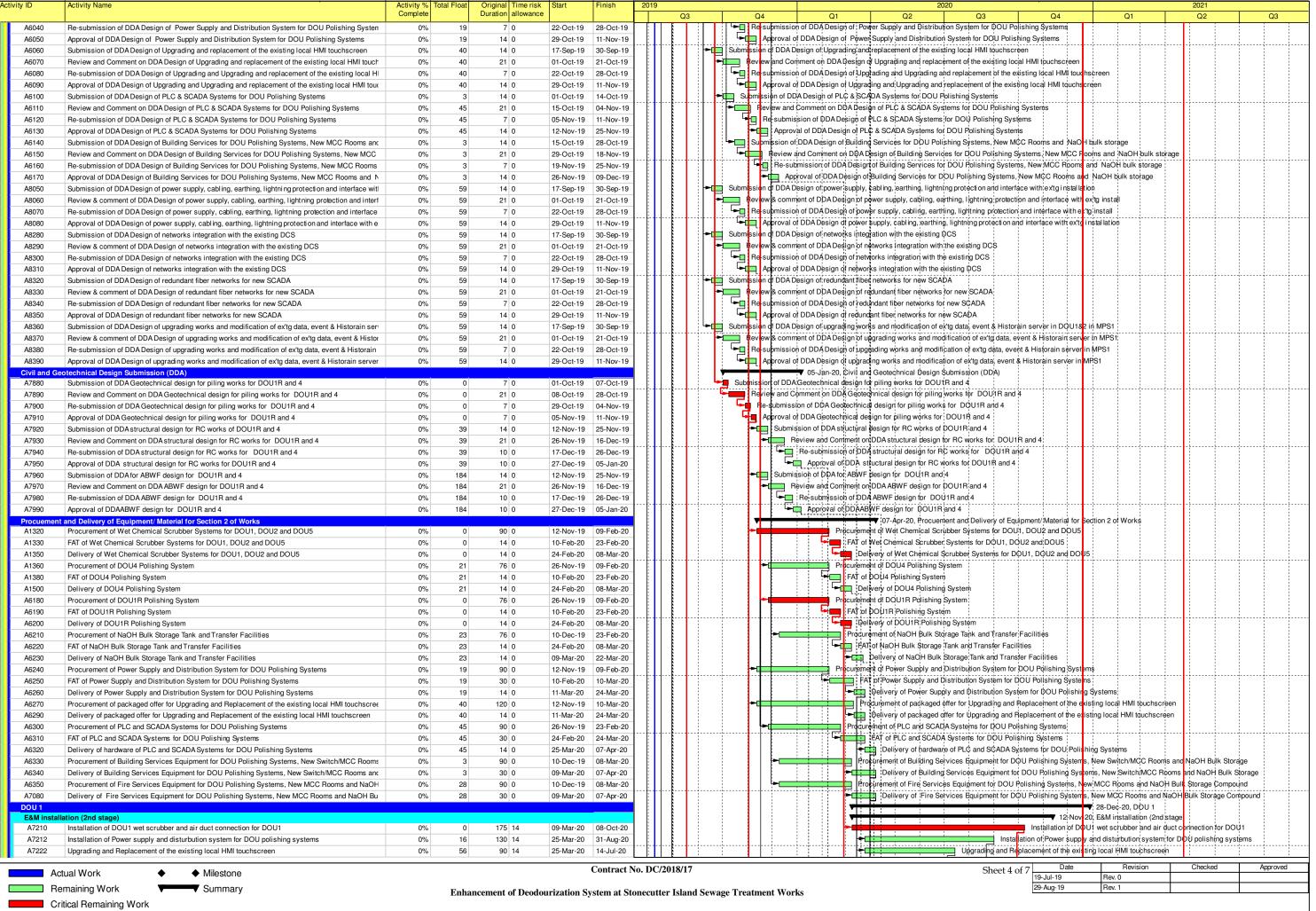
Remarks: No environmental complaint was received in the reporting month.

APPENDIX H CONSTRUCTION PROGRAMME

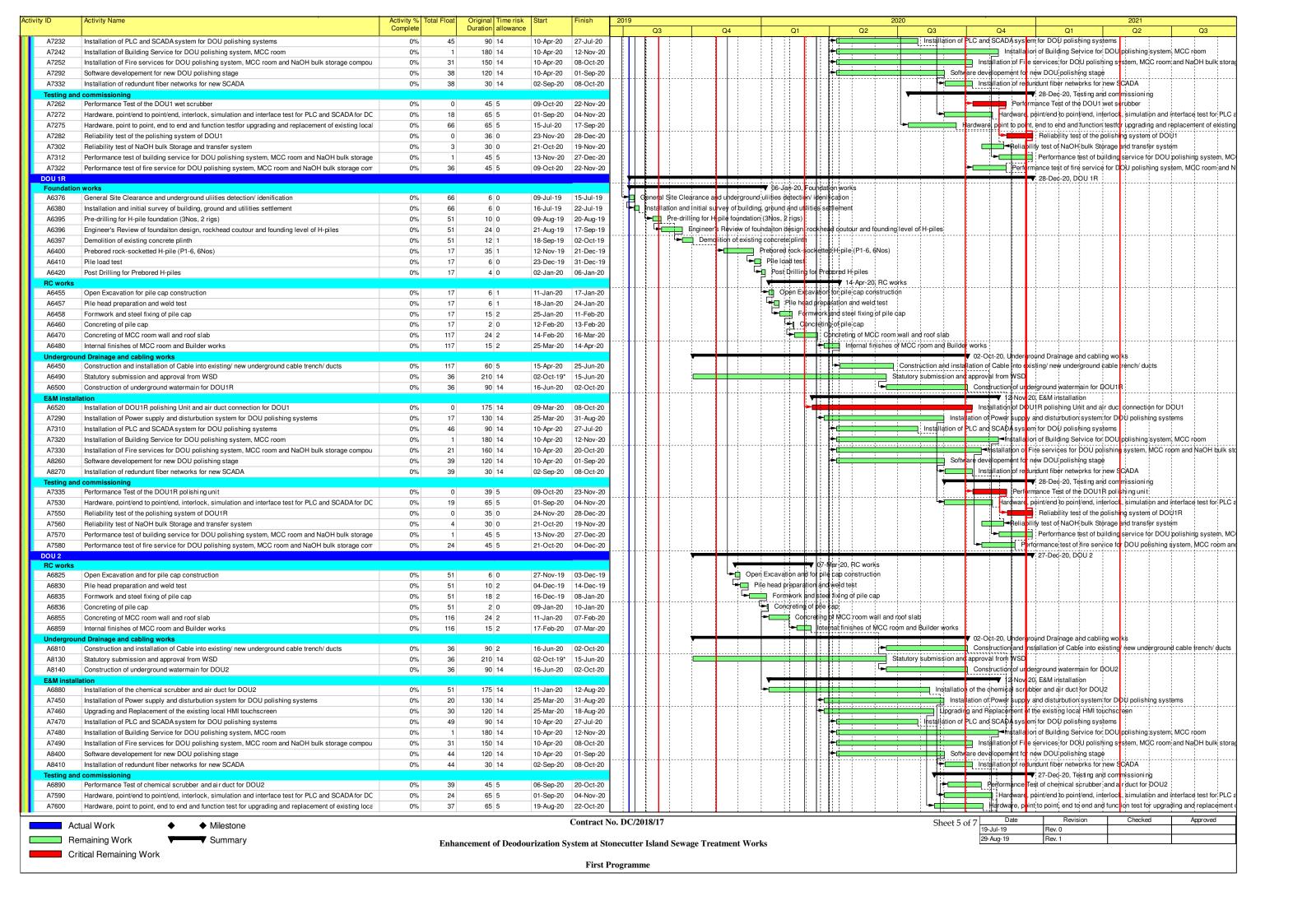


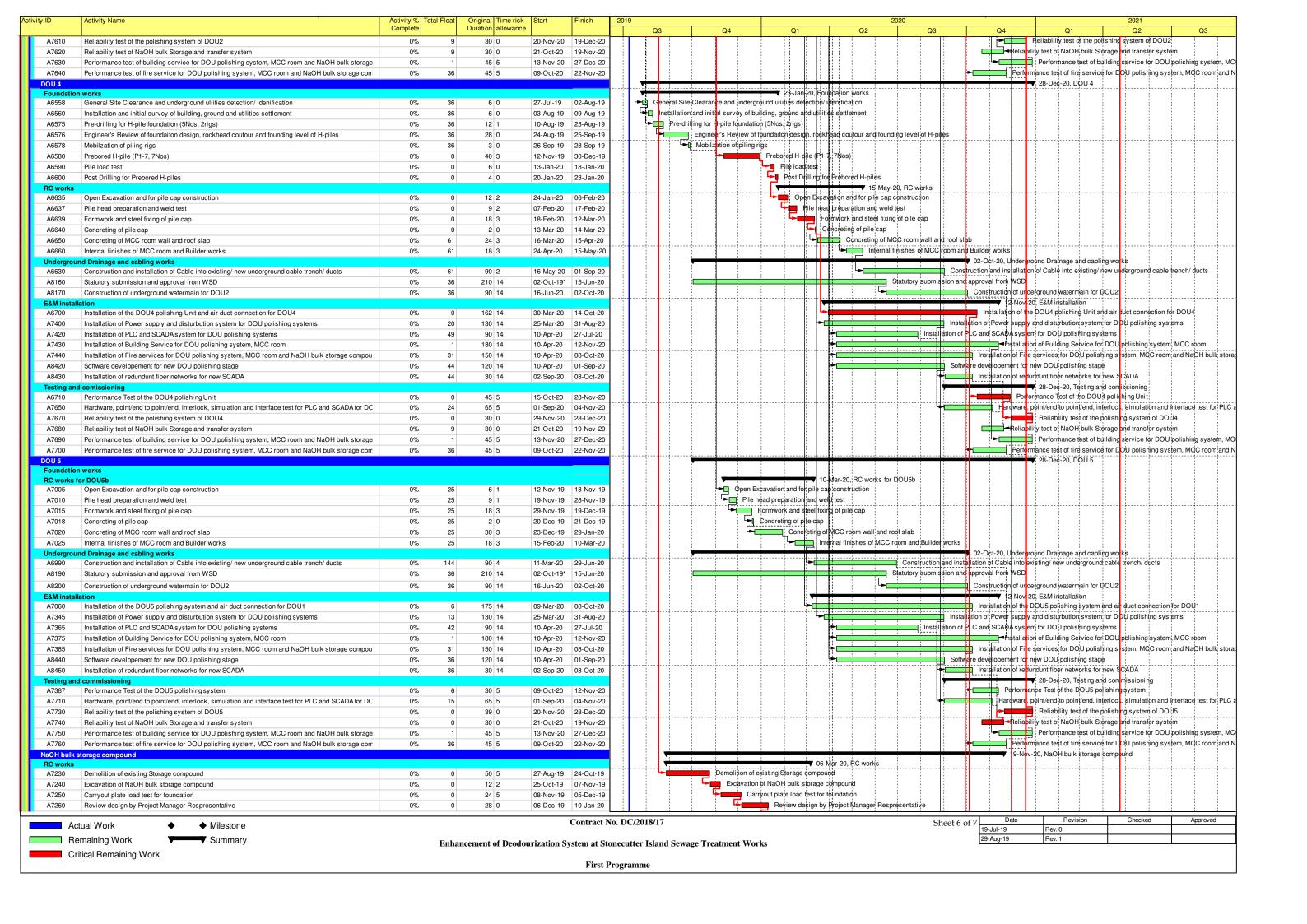






First Programme





Activity ID	Activity Name	Activity %	Total Floa	Original Time risk Duration allowance		Finish	2019			2020				2021		
		Complete						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
A7270	RC works for NaOH bulk storage compound	0%	(45 5	11-Jan-20	06-Mar-20				-	RC works for NaOH bulk					
E&M insta	llation										V	0.5	5-Sep-20, E&M installat			
A7280	Installation NaOH storage tanks and associated transfer pump	0%	(120 20	15-Apr-20	05-Sep-20					<u>ا</u>	In		e tanks and associated transf		
Testing a	d Commissioning											▼	9-N	v-20, Testing and Commission	ni n g	
A7390	Performance test of the NaOH bulk storage compound and transfer system	0%	(75 15	06-Sep-20	19-Nov-20						+=	Perfo	mance test of the NaOH bulk	st <mark>orage compound a</mark> n	d transfer system
Statutary I	spection by FSD											<u> </u>		· · · · · · · · · · · · · · · · · · ·	■ 03-May-21, Sta	
A7770	Submission of Application for FS inspection ot FSD	0%	(21 0	29-Dec-20	18-Jan-21							- - - - - - - - - -	Submission of Appli	cation for FS inspection	n ot FSD
A7780	FS inspection by FSD	0%	(14 2	19-Jan-21	01-Feb-21								FS inspection b	FSD	
A7790	System/ Defect rectification	0%	(40 5	02-Feb-21	13-Mar-21								Syste	n/Defect rectification	
A7800	Submission of application for FS reinspection to FSD	0%	(21 0	14-Mar-21	03-Apr-21								-	Submission of applicat	ion for FS reinspec
A7810	FS re-inspection by FSD	0%	(14 2	04-Apr-21	17-Apr-21								<u> </u>	FS re-inspection by	FSD
A7820	Issue FS certificates	0%	(15 2	18-Apr-21	02-May-21								<u> </u>	Issue FS certifi	cates
A7830	Works completion for Handover	0%	(1 0	03-May-21	03-May-21									Works complete	ion for Handover
Handover	of E&M equipment														03-May-21, Ha	ndover of E&M equ
A8210	Submission of O&M manual, Training manual and spare part list	0%	(30	30-Dec-20*	28-Jan-21								Submission of O	M manual, Training m	anual and spare pa
A8220	Submission of final version of training manual	0%	(30	29-Jan-21	27-Feb-21	1								on of final version of tr	
A8230	O&M training to DSD/ST2	0%	(14	28-Feb-21	13-Mar-21		ii						O&M	ra ning to D\$D/ST2	
A8240	Handover spare parts	0%	(30	14-Mar-21	12-Apr-21								-	Handover spare part	s
A8250	Handover of Final version of O&M manual	0%	(21	13-Apr-21	03-May-21								<u> </u>	Handover of Fi	nal version of O&N

Contract No. DC/2018/17

Sheet 7 of 7 Date 19-Jul-19 29-Aug-19

Enhancement of Deodourization System at Stonecutter Island Sewage Treatment Works