#### QUARTERLY EM&A REPORT

OSCAR Bioenergy Joint Venture

Contract No. EP/SP/61/10
Organic Waste Treatment Facilities
Phase 1:
First Quarterly EM&A Summary
Report

21 May 2015 – 31 August 2015

#### **Environmental Resources Management**

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# Organic Waste Treatment Facilities, Phase I

1<sup>st</sup> Quarterly EM&A Summary Report (21 May 2015 – 31 August 2015)

(October 2015)

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Position: <u>In</u>	lependent Environmental Checker	
Date:	28 Oct. 2015	

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21 May 2015 – 31 August 2015 Reference 0279222

For and on behalf of ERM-Hong Kong, Limited				
Approved by: _	Frank Wan			
Signed:	March 4.			
Position:	Partner			
Certified by:(Environ	mental Team Leader – Winnie Ko)			
Certified by:				
Date:	28 October 2015			

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#### **EXECUTIVE SUMMARY**

The construction works of *No. EP/SP/61/10 Organic Waste Treatment Facilities Phase I (the Project)* commenced on 21 May 2015. This is the first quarterly Environmental Monitoring and Audit (EM&A) summary report presenting the EM&A works carried out during the period from 21 May 2015 to 31 August 2015 in accordance with the EM&A Manual.

#### **Environmental Monitoring and Audit Progress**

A summary of the monitoring activities undertaken in this reporting period is listed below:

• Joint Environmental Site Inspection

14 times

• Landscape & Visual Monitoring

7 times

#### Waste Management

Waste generated from this Project includes inert construction and demolition (C&D) materials (public fill) and non-inert C&D materials (construction wastes).

Environmental Exceedance/Non-conformance/Compliant/Summons and Prosecution

No exceedance was recorded during the reporting period.

No non-compliance event was recorded during the reporting period.

No environmental complaint and summon/prosecution was received in this reporting period.

#### 1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by OSCAR Bioenergy Joint Venture (the Contractor) as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) programme for the *Contract No. EP/SP/61/10 of Organic Waste Treatment Facilities Phase I (the Project)*.

#### 1.1 Purpose of the Report

This is the first quarterly EM&A summary report, which summarizes the impact monitoring results and audit findings for the EM&A programme during the reporting period from 21 May 2015 to 31 August 2015.

#### 1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

#### Section 1: **Introduction**

It details the scope and structure of the report.

#### Section 2: **Project Information**

It summarises background and scope of the Project, site description, project organization, construction programme, the construction works undertaken and the status of Environmental Permits (EP)/licences over the construction phase of the Project.

#### Section 3: Environmental Monitoring Requirements

It summarises the environmental monitoring including monitoring parameters, monitoring programmes, monitoring frequency, monitoring locations, Action and Limit Levels, Event/Action Plans, environmental mitigation measures as recommended in the approved EIA report, EP and relevant environmental requirements stated in the Contract Specification.

## Section 4: **Implementation Status on Environmental Mitigation Measures**It summarises the implementation of environmental protection measures during the reporting period.

#### Section 5: Waste Management

It summarises the quantity of public fill and construction waste generated in the reporting period

#### Section 6: **Environmental Site Inspection**

It summarises the audit findings of the weekly site inspections undertaken within the reporting period.

#### Section 7: Environmental Non-conformance

It summarises any exceedance of environmental performance standard, and environmental complaints and environmental summons received within the reporting period.

Section 8 : Conclusions

#### 2 PROJECT INFORMATION

#### 2.1 BACKGROUND

The Organic Waste Treatment Facilities (OWTF) Phase I development (hereinafter referred to as "the Project") is to design, construct and operate a biological treatment facility with a capacity of about 200 tonnes per day and convert source-separated organic waste from commercial and industrial sectors (mostly food waste) into compost and biogas through proven biological treatment technologies.

The environmental acceptability of the construction and operation of the Project had been confirmed by findings of the associated Environmental Impact Assessment (EIA) Study completed in 2009. The Director of Environmental Protection approved this EIA Report under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) in February 2010 (Register No.: AEIAR-149/2010) (hereafter referred to as the approved EIA Report). Subsequent Report on Re-assessment on Environmental Implications and Report on Re-assessment on Hazard to Life Implications were completed in 2013, respectively.

An Environmental Permit (EP) (No. EP-395/2010) was issued by the Environmental Protection Department (EPD) to the EPD, the Permit Holder, on 21 June 2010 and varied on 18 March 2013 (No. EP-395/2010/A) and 21 May 2013 (No. EP-395/2010/B), respectively. The Design Build and Operate Contract for the OWTF (Contract No. EP/SP/61/10 Organic Waste Treatment Facilities Phase I (the Contract)) was awarded to SITA Waste Services Limited, ATAL Engineering Limited and Ros-Roca, Sociedad Anonima jointly trading as the OSCAR Bioenergy Joint Venture (OSCAR or the Contractor). A Further EP (No. FEP-01/395/2010/B) was issued by the EPD to the OSCAR on 16 February 2015.

Under the requirements of Condition 5 of the EP (No. FEP-01/395/2010/B), an Environmental Monitoring and Audit (EM&A) programme as set out in the Agreement No. CE7/2008 (EP) EM&A Manual (hereinafter referred to as EM&A Manual) is required to be implemented. ERM-Hong Kong, Ltd (ERM) has been appointed by OSCAR as the Environmental Team (ET) to undertake the EM&A programme for the Contract.

The construction works commenced on 21 May 2015 and are scheduled for completion by April 2017.

#### 2.2 GENERAL SITE DESCRIPTION

The open area adjacent to the existing PPSTW has been designated for the upgrading works. The layout of the upgrading works is illustrated in *Annex A*.

#### 2.3 CONSTRUCTION ACTIVITIES

A summary of the major construction activities undertaken in the reporting period is shown in *Table 2.1*. The locations of the construction activities are shown in *Annex B*. The construction programme of the Project is presented in *Annex C*.

#### Table 2.1 Summary of Construction Activities Undertaken in the Reporting Period

#### **Construction Activities Undertaken**

- Open cutting
- Pre-drilling
- Piling
- Removing topsoil at the location of Building 2
- Construction of foundation footing for Tower Crane
- Excavation Works for Building 1 and Building 2
- Earthing Copper Tape Installation; and
- Tower Crane Erection

#### 2.4 PROJECT ORGANISATION AND MANAGEMENT STRUCTURE

The project organisation chart and contact details are shown in *Annex D*.

#### 2.5 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the valid permits, licences, and/or notifications on environmental protection for this Project is presented in *Table 2.2*.

Table 2.2 Summary of Environmental Licensing, Notification and Permit Status

Permit/ Licenses/	Reference	Validity Period	Remarks
Notification			
Environmental Permit	FEP-	Throughout the	Permit granted on 16
	01/395/2010/B	Contract	February 2015
Notification of	Ref No. 386715	Throughout the	-
Construction Works		Contract	
under the Air Pollution			
Control (Construction			
Dust) Regulation			
Effluent Discharge	WT00021482-	21 May 2015 - 31	Approved on 21 May
License	2015	May 2020	2015
Construction Noise	GW-RW0396-15	1 April 2015 - 14	-
Permit		January 2016	
Chemical Waste Producer	WPN 5213-961-	Throughout the	Approved on 29 April
Registration	O2231-01	Contract	2015
Waste Disposal Billing	Account	Throughout the	-
Account	number: 702310	Contract	

## 3 ENVIRONMENTAL MONITORING REQUIREMENT, ENVIRONMENTAL MITIGATION MEASURES

All the relevant environmental mitigation measures listed in the EIA Report and EM&A Manual are summarised in *Annex E*.

According to the EM&A Manual and EP requirement, no air quality, noise and water quality monitoring is required.

Bi-weekly landscape and visual audit is required to ensure that the design, implementation and maintenance of landscape and visual mitigation measures recommended in the EIA Report are fully achieved.

## 4 IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor has implemented environmental mitigation measures and requirements as stated in the approved EIA Report and EM&A Manual. The implementation status of the measures during the reporting period is summarised in *Annex E*.

Wastes generated from this Project include inert construction and demolition (C&D) materials (public fill) and non-inert C&D materials (construction waste). Construction waste comprises general refuse, metals and paper/cardboard packaging materials. Metals generated from the Project are also grouped into construction waste as the materials were not disposed of with others at public fill. Reference has been made to the Monthly Summary Waste Flow Table prepared by the Contractor (see *Annex F*). With reference to the relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in *Table 5.1*.

Table 5.1 Quantities of Waste Generated from the Project

Month / Year		Quantity			
	Total Inert C&D	Non-inert C&D Materials (b)			
	Materials Generated (a)	C&D Materials Recycled ©	C&D Waste Disposed of at Landfill <sup>(d)</sup>	Chemical Waste	
May 2015	29.58 tonnes	0.00 kg	0.00 tonnes	0 L	
June 2015	2,226.90 tonnes	0.00 kg	9.66 tonnes	0 L	
July 2015	2,832.27 tonnes	0.00 kg	33.68 tonnes	0 L	
August 2015	6,657.25 tonnes	0.00 kg	55.06 tonnes	0 L	

#### Notes:

- (a) Inert C&D materials (public fill) include bricks, concrete, building debris, rubble and excavated spoil. In total, 11746.00 tonnes of inert C&D material were generated from the Project, of which 0.00 tonnes were reused in this Contract and the remaining 11746.00 tonnes were disposed as public fill to Fill Banks at Tuen Mun Area 38 and Tseung Kwan O Area 137. The detailed waste flow is presented in *Annex F*.
- (b) Non-inert C&D materials (construction wastes) include metals, paper / cardboard packaging waste, plastics and other wastes such as general refuse. Metals generated from the Project were grouped into construction wastes as the materials were not disposed of with others at the public fill.
- (c) 0.00 kg of metals, 0.00 kg of papers/ cardboard packing and 0.00 kg of plastics were sent to recyclers for recycling during the reporting period.
- (d) Construction wastes other than metals, paper/cardboard packaging, plastics and chemicals were disposed of at NENT Landfill by subcontractors.

#### 6

#### 6.1 WEEKLY SITE AUDITS

Fourteen site inspections were conducted during the reporting period. There was no non-compliance recorded during the site inspections. Follow-up actions were undertaken as reported by the Contractor and observed in the subsequent weekly site inspections conducted in the reporting period.

May 2015

Joint site inspections were conducted by the representatives of the Contractor, SOR and the ET on 28 May 2015.

June 2015

Joint site inspections were conducted by the representatives of the Contractor, SOR and the ET on 5, 12, 17 and 26 June 2015 The IEC was also present at the joint inspection on 17 June 2015.

July 2015

Joint site inspections were conducted by the representatives of the Contractor, SOR and the ET 3, 10, 17, 22 and 31 July 2015. The IEC was also present at the joint inspection on 22 July 2015.

August 2015

Joint site inspections were conducted by the representatives of the Contractor, SOR and the ET on 7, 14, 19 and 28 August 2015. The IEC was also present at the joint inspection on 19 August 2015.

#### 6.2 LANDSCAPE AND VISUAL AUDIT

Seven landscape and visual monitoring site inspections were conducted during the reporting period. Follow-up actions needed to be implemented were recommended to the Contractor and the status of the follow-up actions was reviewed during the subsequent weekly site inspections. It was confirmed that most of the necessary landscape and visual mitigation measures as summarised in *Annex I* were implemented by the Contractor.

In accordance with the EM&A Manual, bi-weekly landscape and visual inspection is required to ensure that the design, implementation and maintenance of landscape and visual mitigation measures recommended in the EIA Report are fully achieved. The onsite inspection of the landscape and visual mitigation measures has commenced since June 2015 during weekly site inspections.

June 2015

Weekly site inspections were conducted on 5 and 17 June 2015.

July 2015

Weekly site inspections were conducted on 3, 17 and 31 July 2015.

August 2015

Weekly site inspections were conducted on 14 and 28 August 2015.

Key landscape and visual mitigation measures implemented in the reporting period included:

- Set up of a temporary tree nursery;
- Loosen ropes and plastic strips;
- Avoid tying around the trees;
- Provide a "Tree Protection Zone" sign on the fence to restrict the access to the trees;
- Clear the general refuse near the trees; and
- Avoid placing machine near the tree protection zone.

#### 6.3 EFFECTIVENESS OF MITIGATION MEASURES AND MONITORING

The mitigation measures recommended in the EIA report and required by the EP are considered effective in minimizing environmental impacts.

The EM&A for the Project was conducted as scheduled during the reporting period. No non-compliance events were observed during site inspections and no exceedances were recorded during this reporting period. The EM&A programme is considered effective.

#### 7 ENVIRONMENTAL NON-CONFORMANCE

#### 7.1 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

No non-compliance event was recorded during the reporting period.

#### 7.2 SUMMARY OF ENVIRONMENTAL COMPLAINT

No complaint was received during the reporting period. The cumulative environmental complaint log is shown in *Annex G*.

#### 7.3 SUMMARY OF ENVIRONMENTAL SUMMON AND SUCCESSFUL PROSECUTION

No summon/prosecution was received during the reporting period. The cumulative summons/prosecution log is shown in *Annex G*.

#### 8 CONCLUSIONS

This EM&A Report presents the EM&A works undertaken during the reporting period from 21 May 2015 to 31August 2015 in accordance with EM&A Manual and requirements of EP (FEP-01/395/2010/B).

No air quality, noise and water quality monitoring is required.

Bi-weekly landscape and visual monitoring was conducted in this quarterly period. Most of the necessary landscape and visual mitigation measures recommended in the EIA Report were implemented by the Contractor. Follow-up actions would be implemented by the Contractor to improve protection measures on the retained or to-be transplanted trees.

No non-compliance event was recorded during the reporting period.

No complaint and summons/prosecution was received during the reporting period.

The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures in the coming periods.

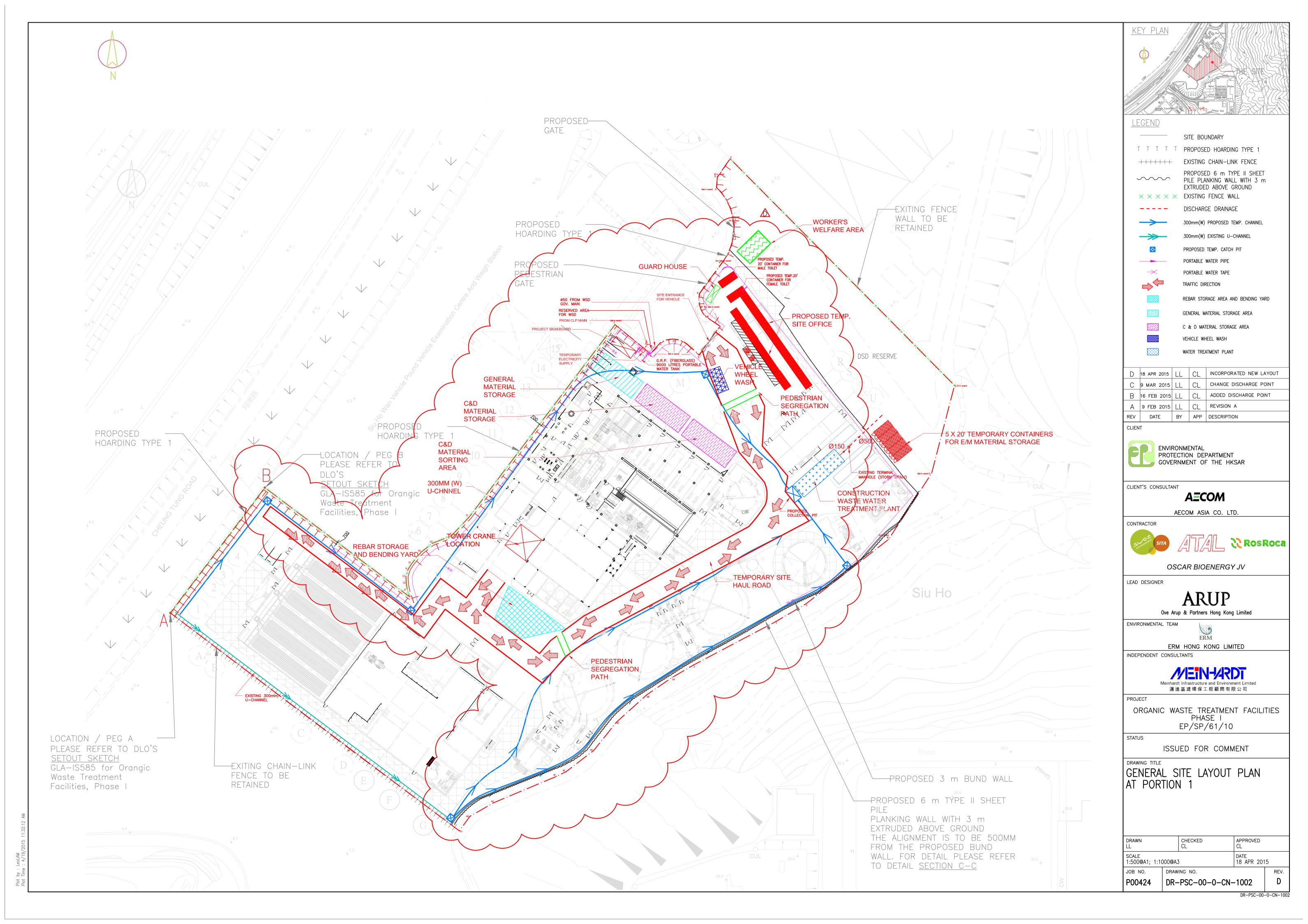
#### Annex A

## Project Layout



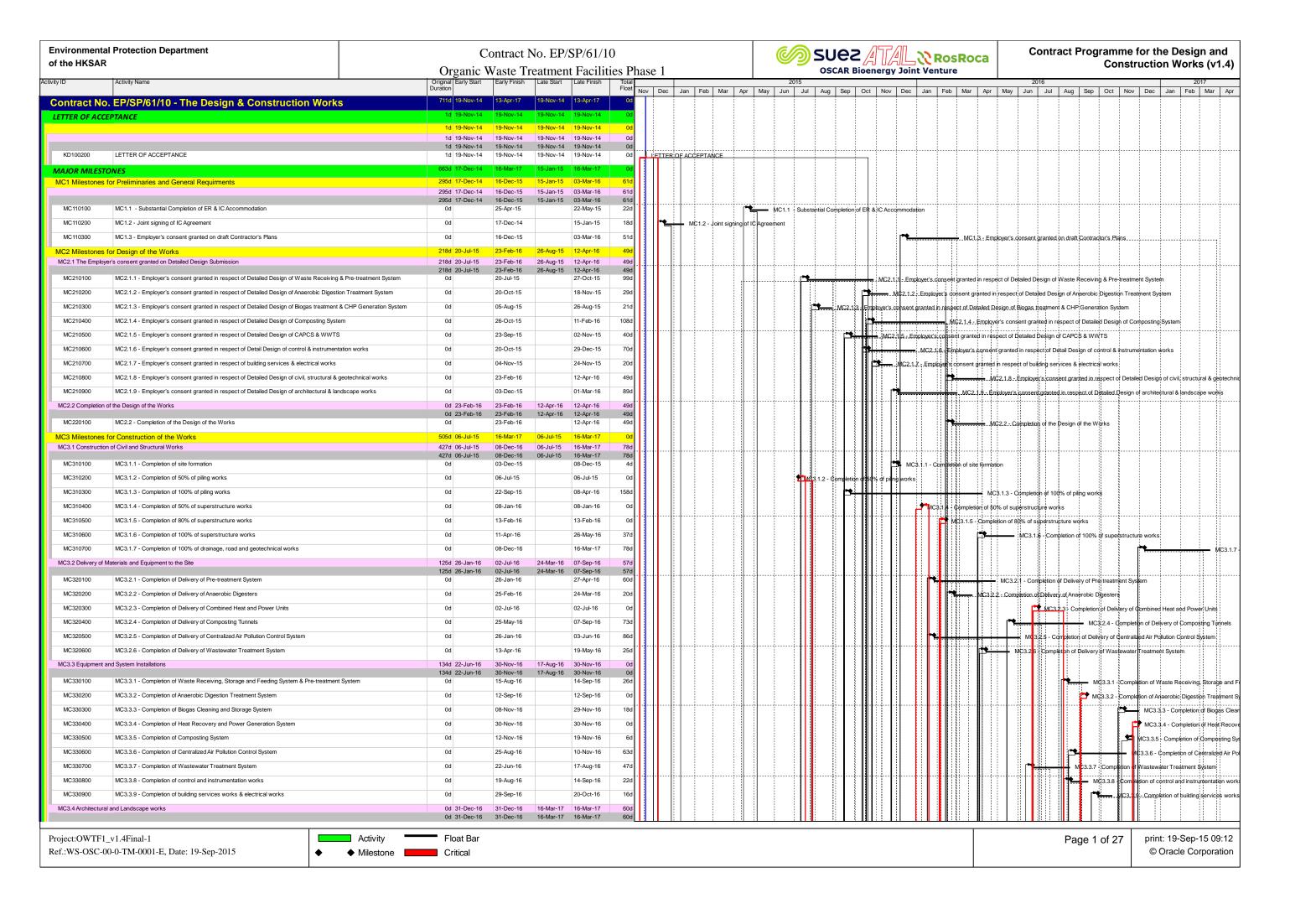
#### Annex B

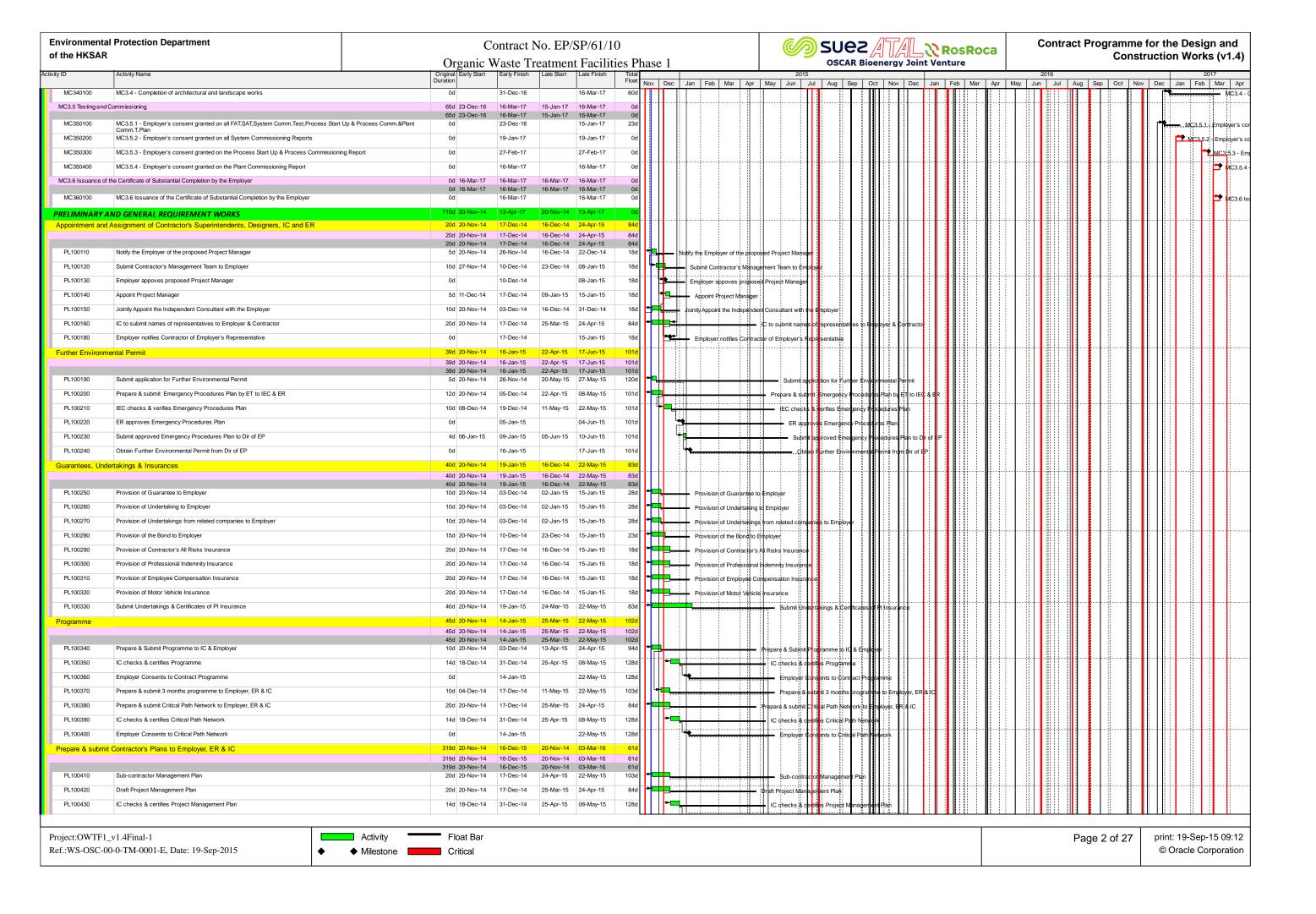
### Works Location

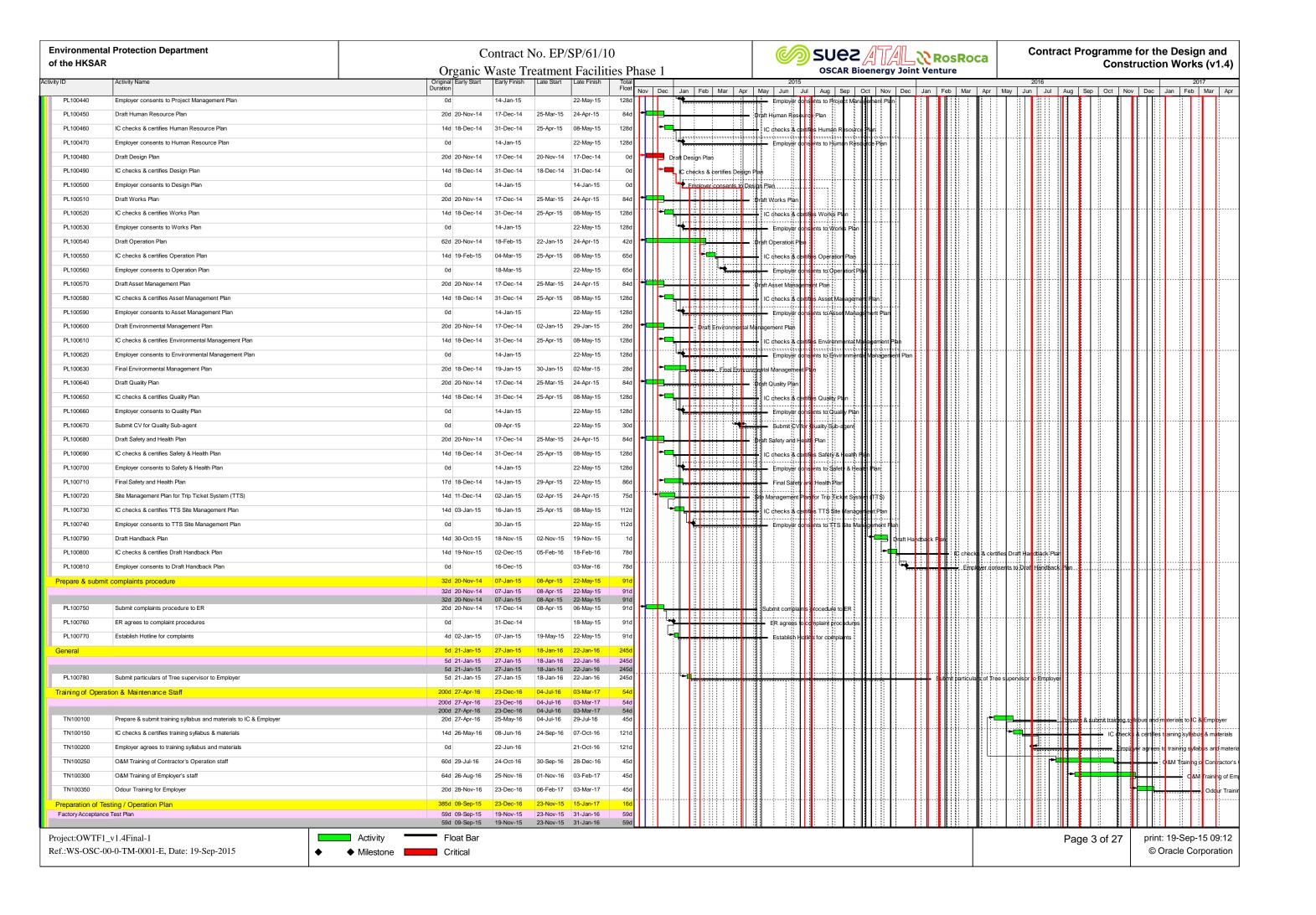


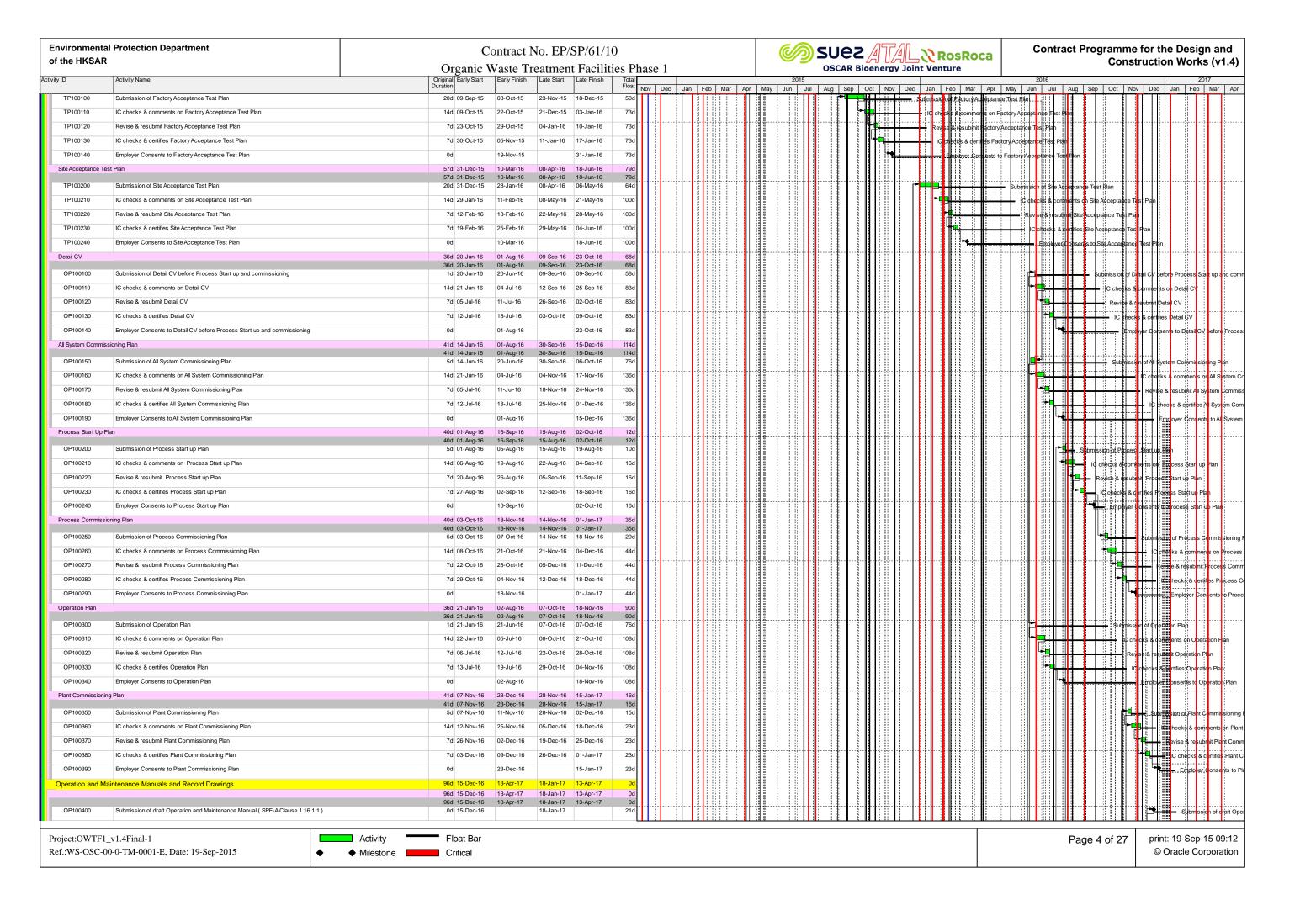
#### Annex C

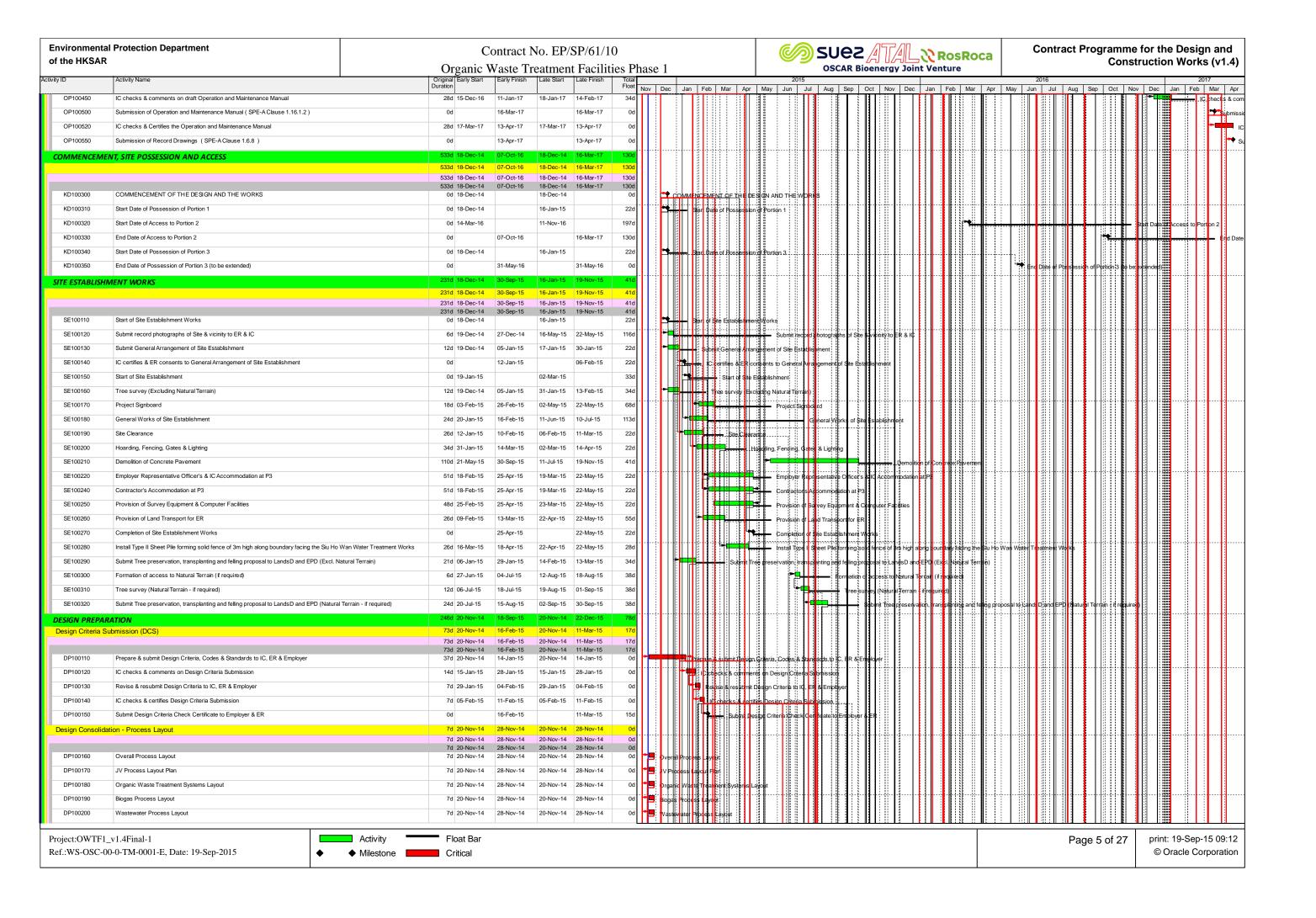
Construction Programme of the Project

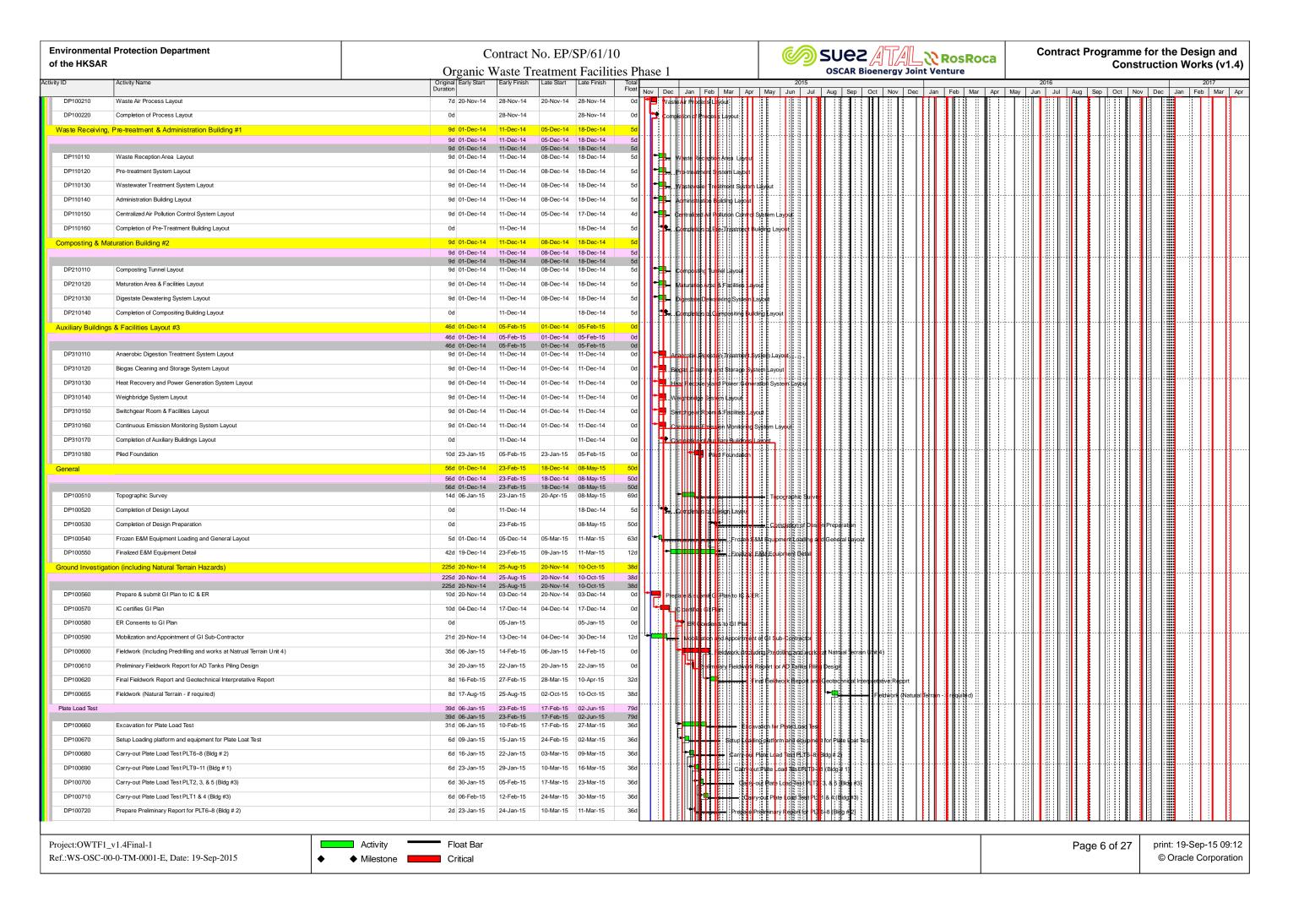


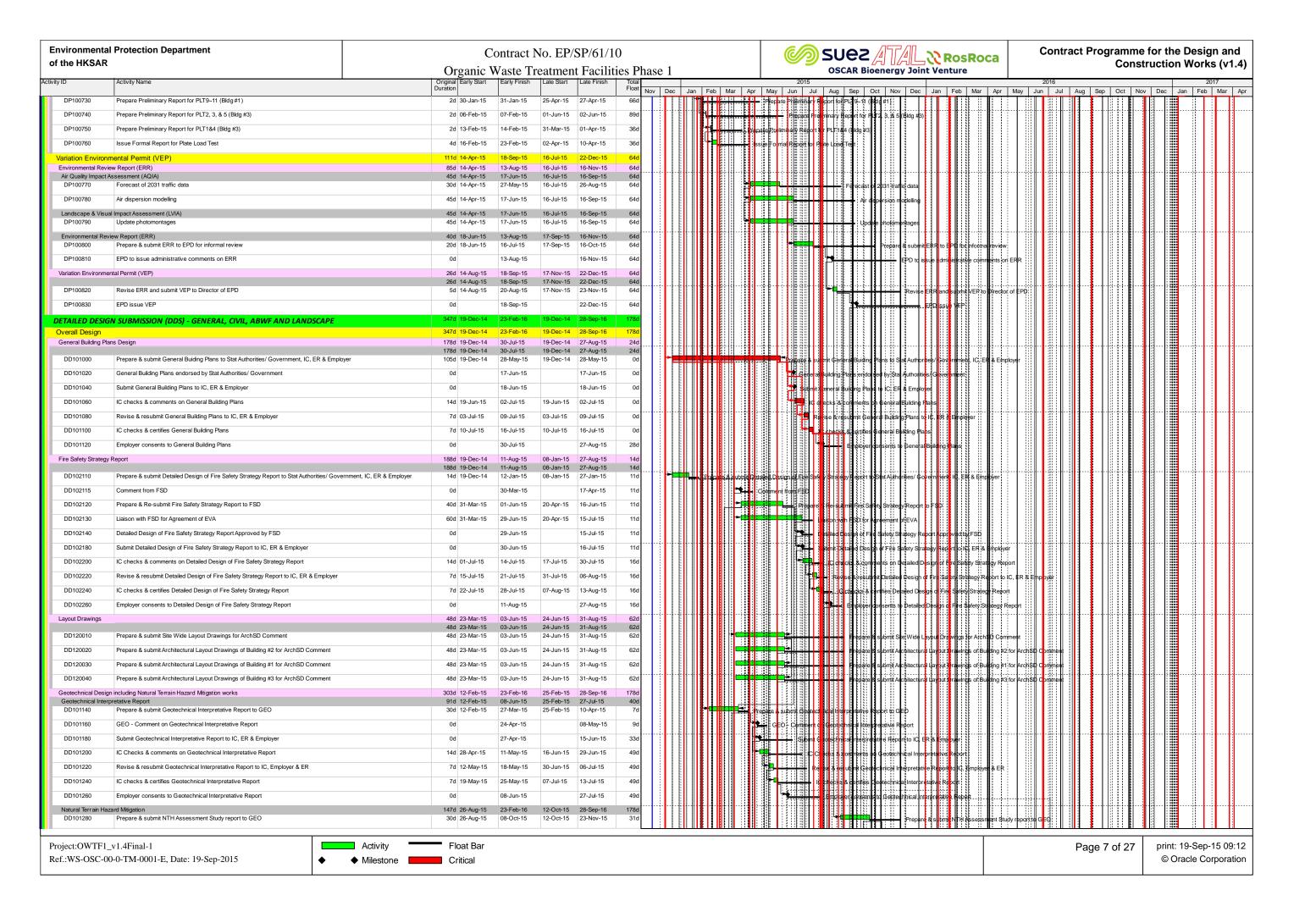


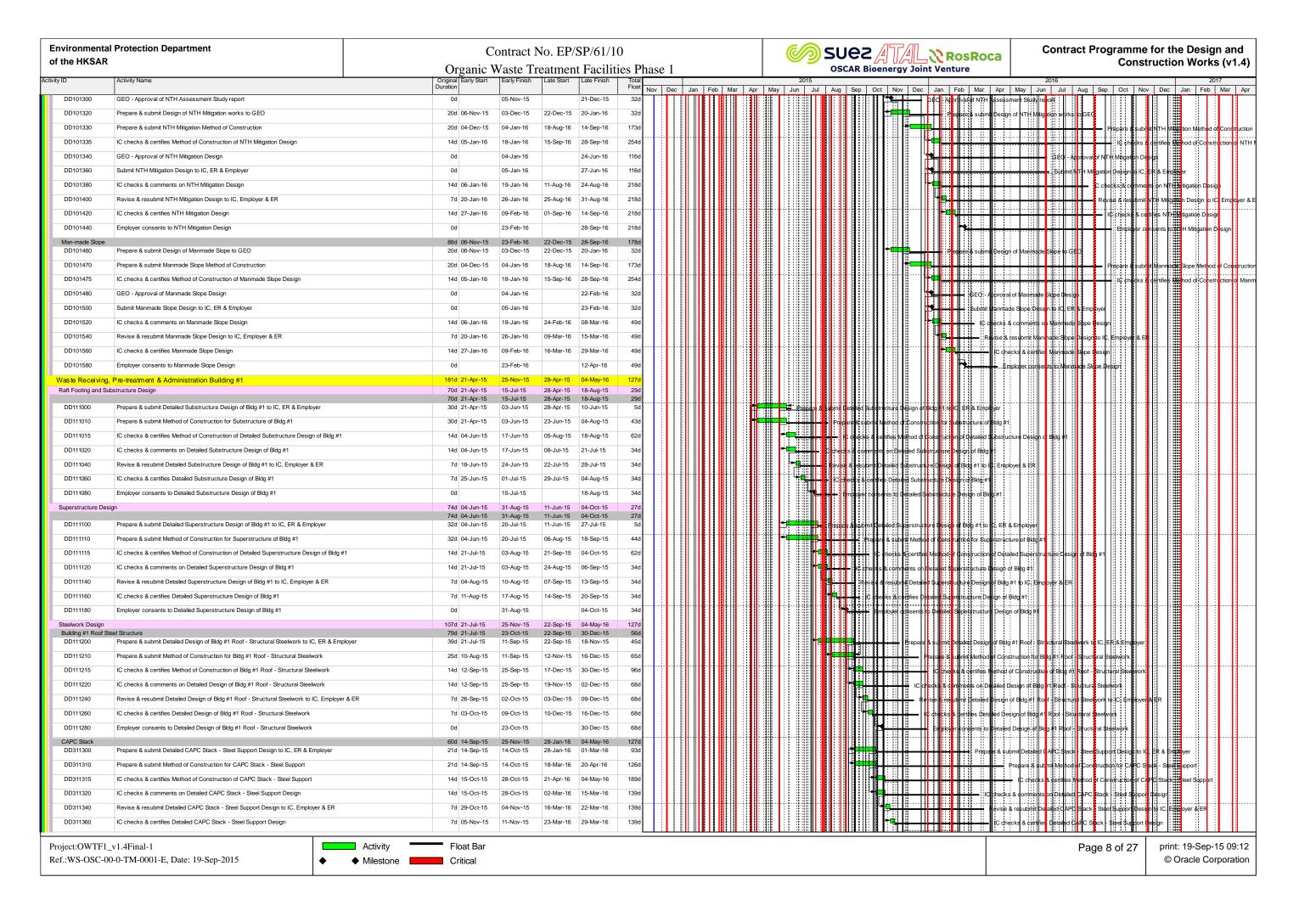


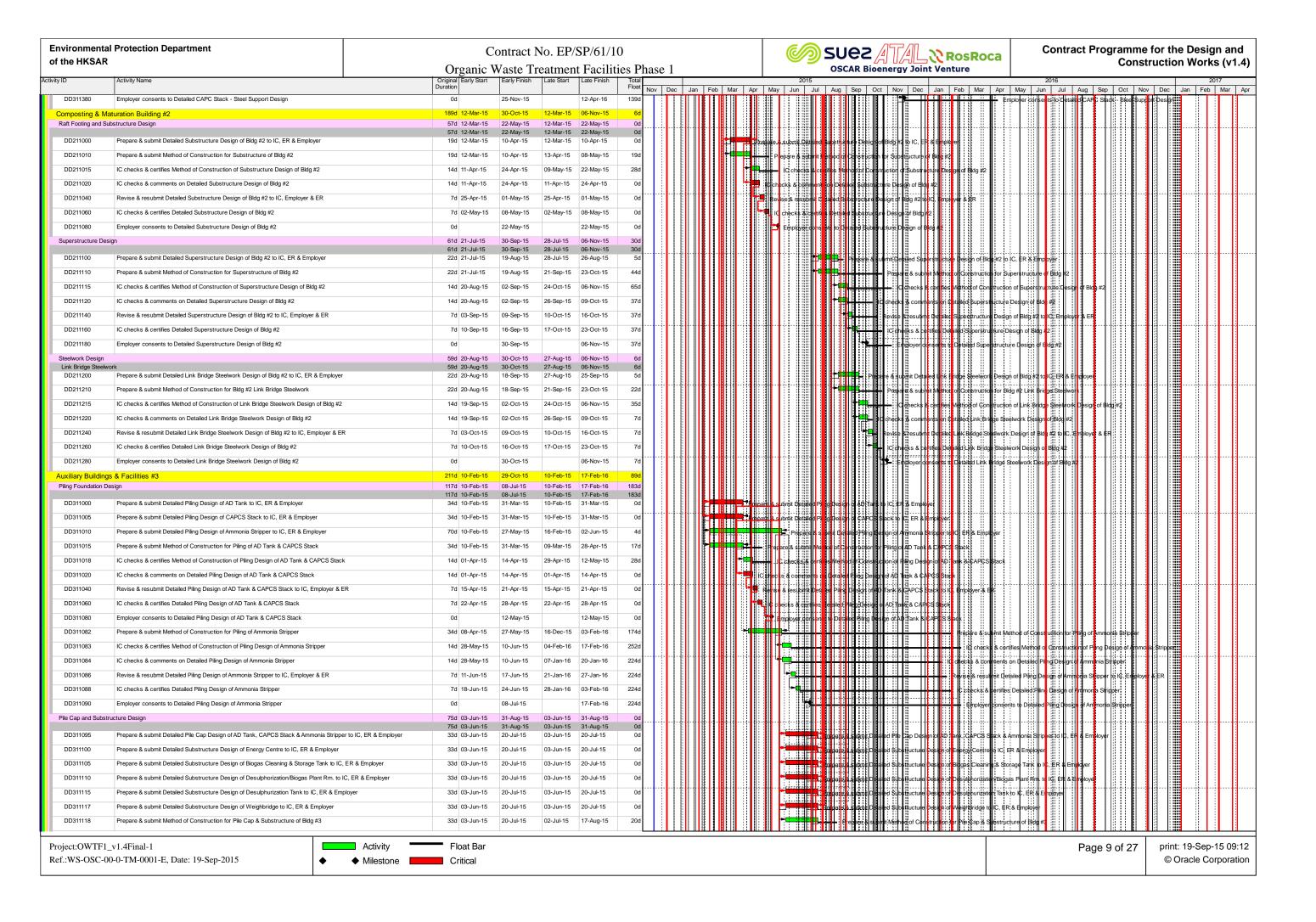




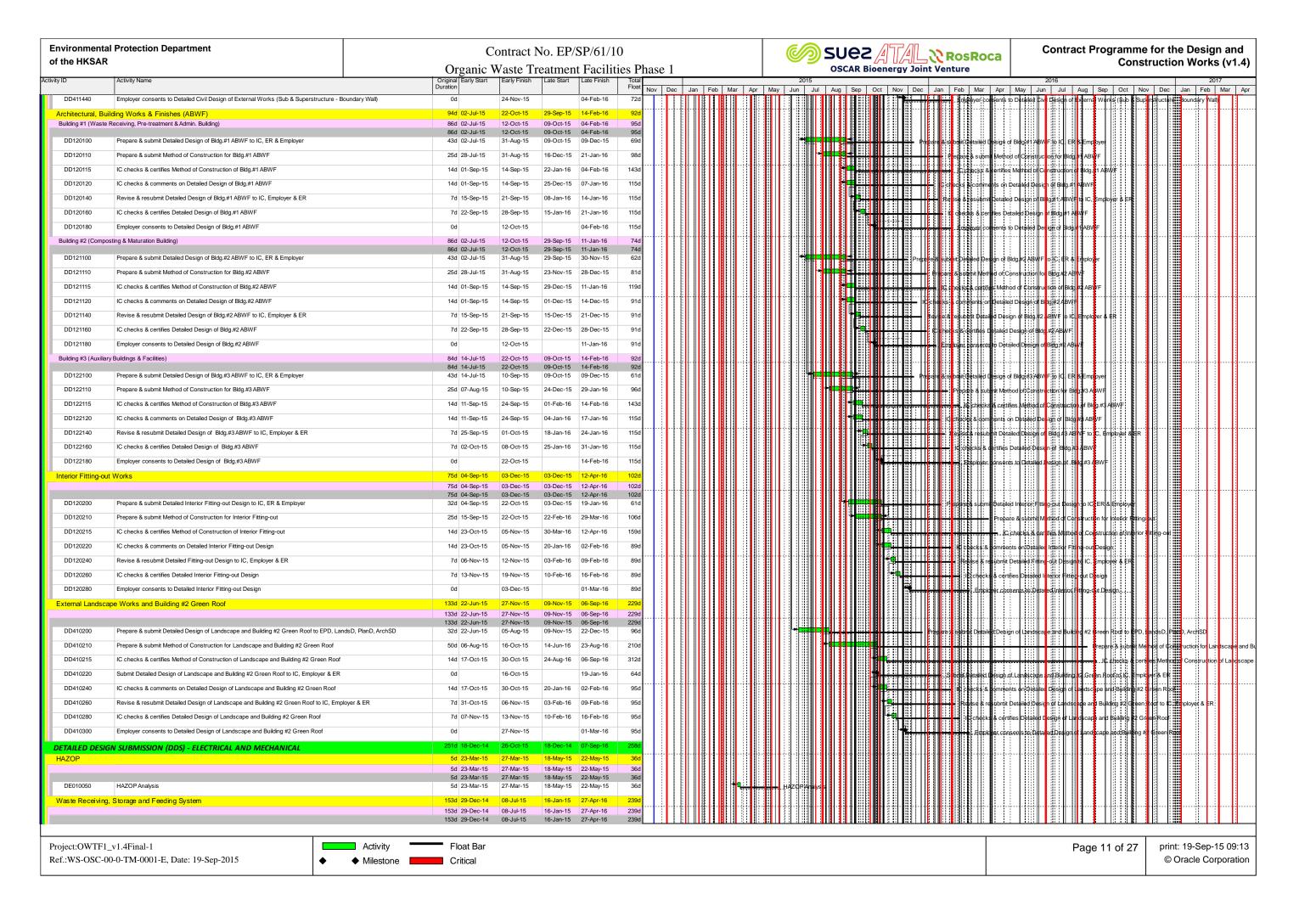


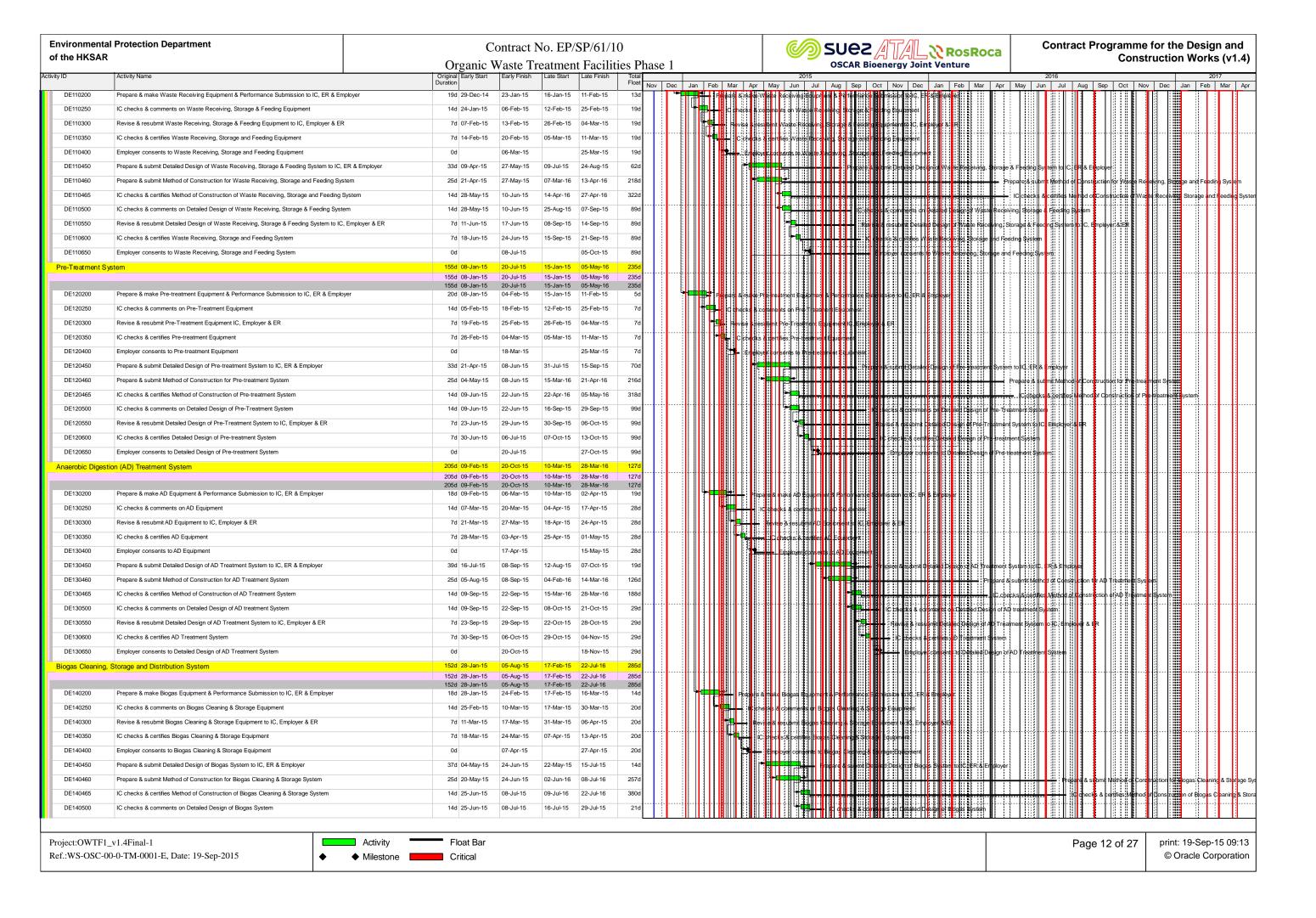


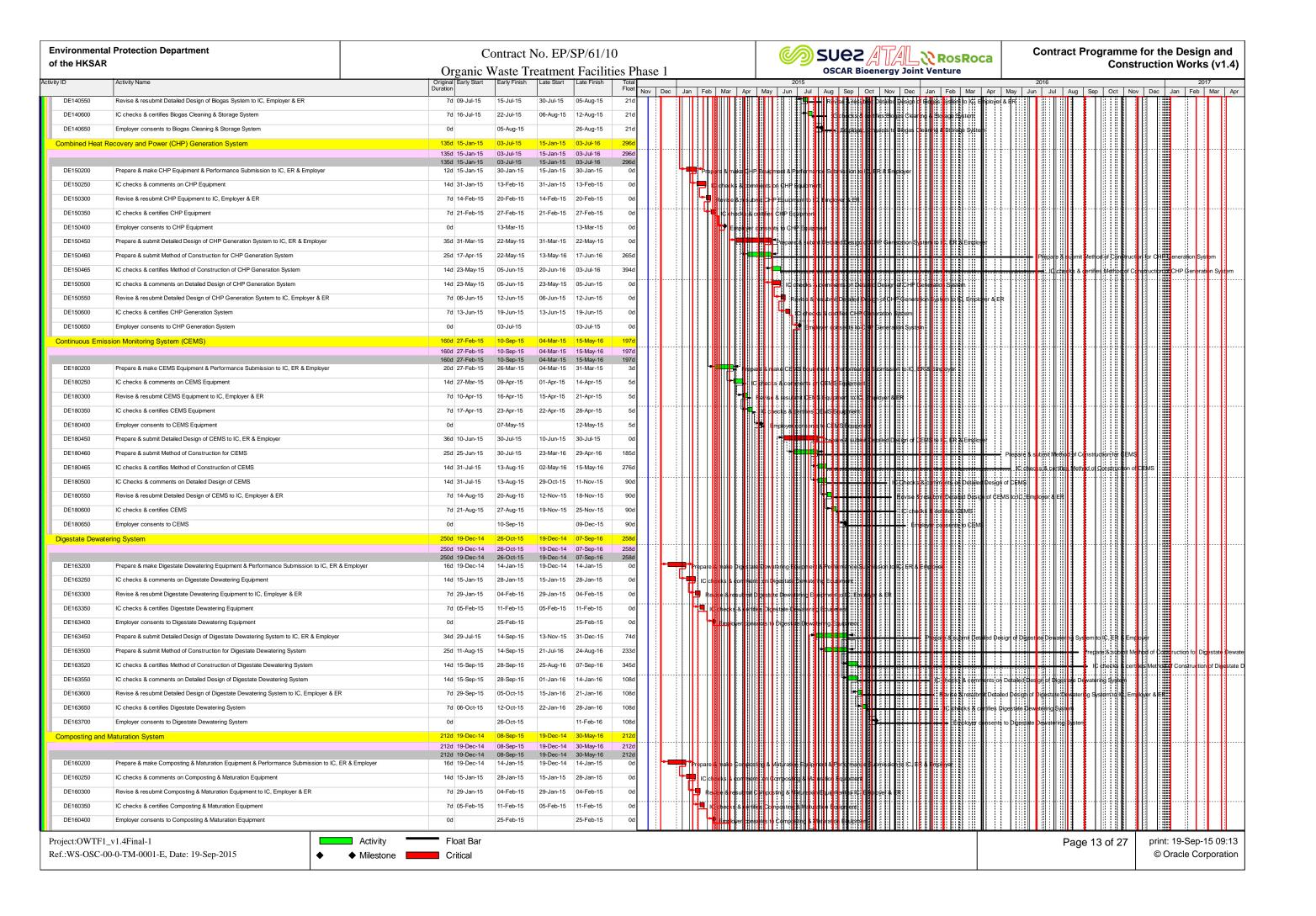


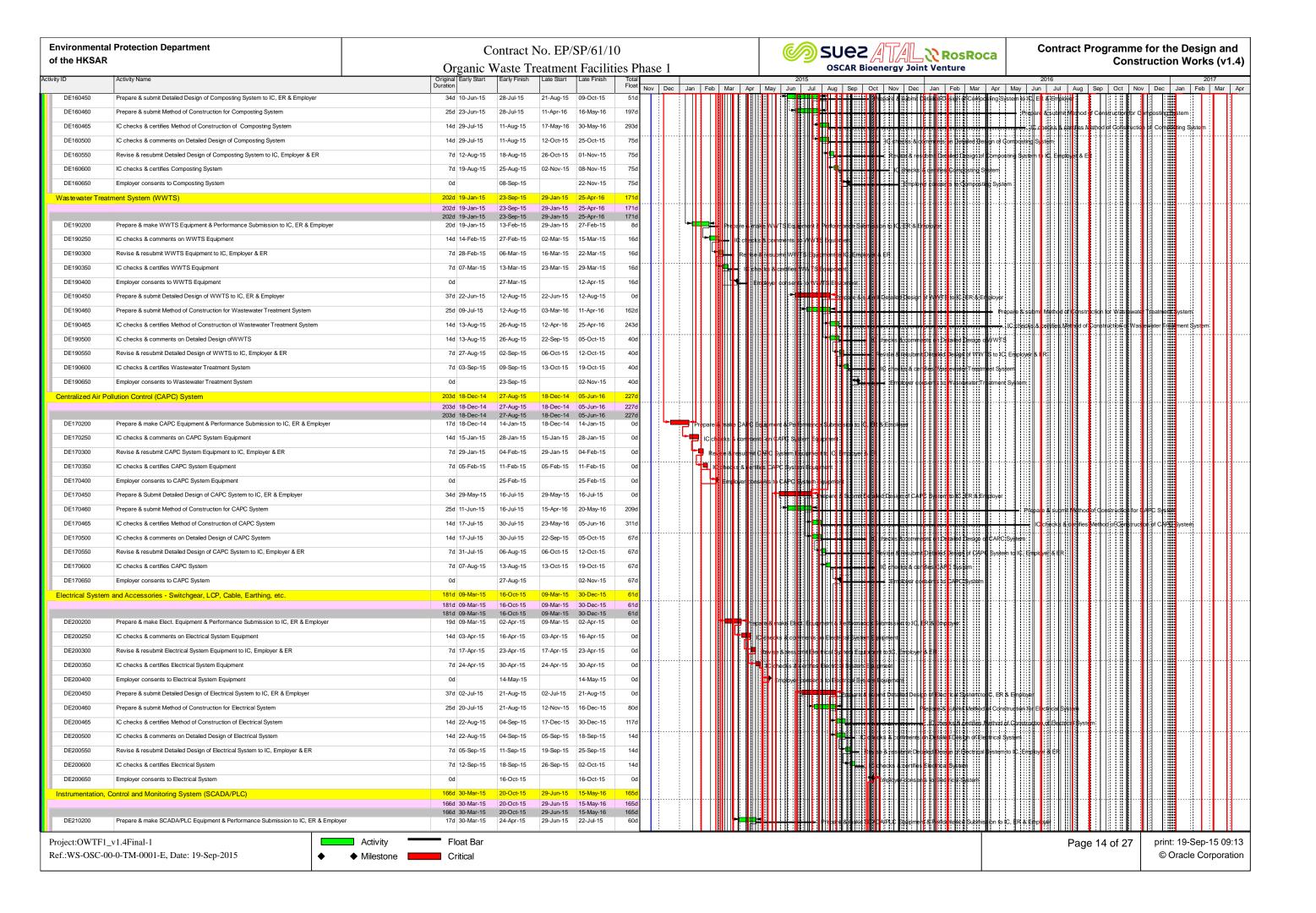


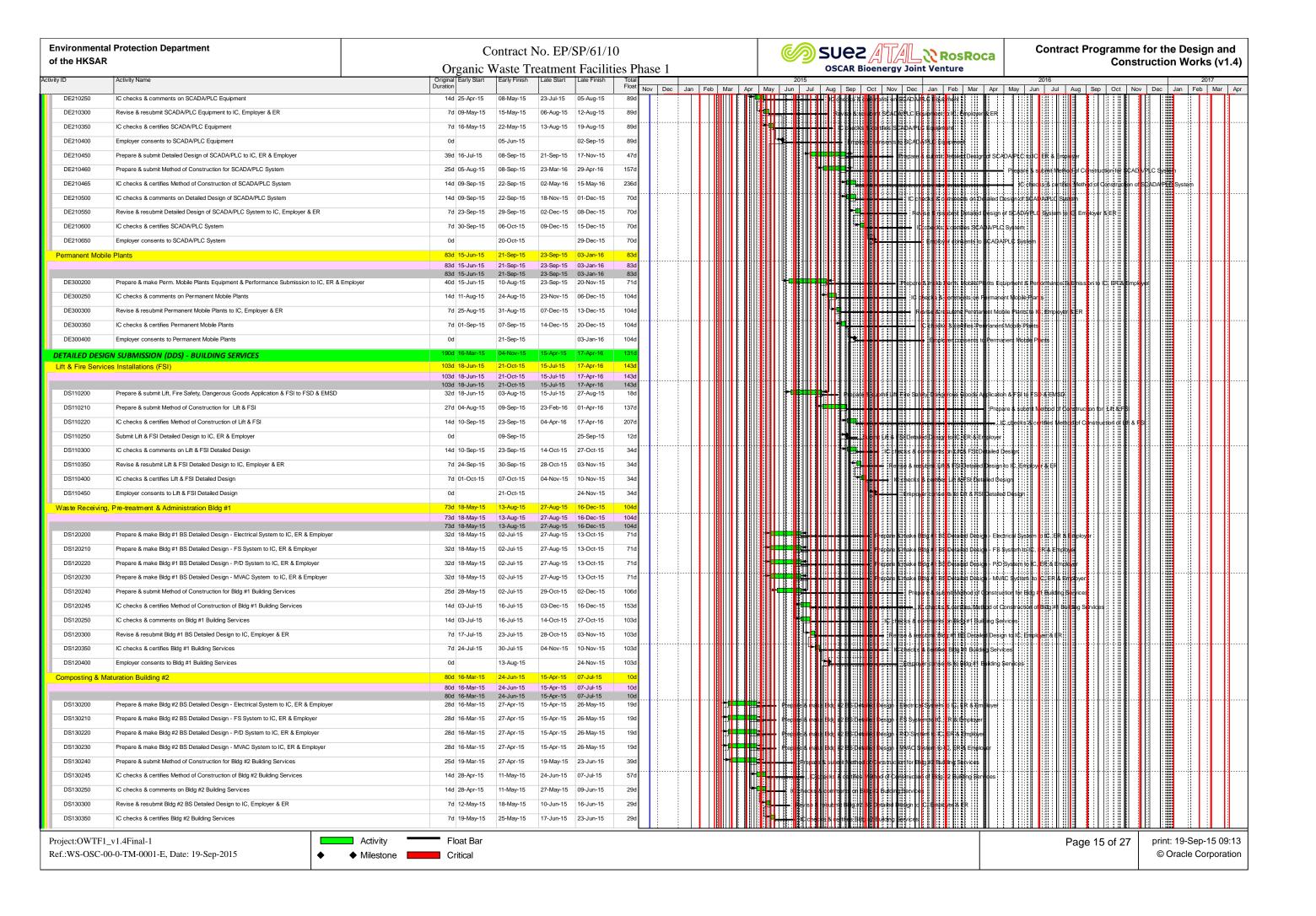
**Environmental Protection Department** Suez ATAL **Contract Programme for the Design and** Contract No. EP/SP/61/10 ൂ RosRoca of the HKSAR **Construction Works (v1.4) OSCAR Bioenergy Joint Venture** Organic Waste Treatment Facilities Phase 1 Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr DD311119 IC checks & certifies Method of Construction of Pile Cap & Substructure Design of Bldg & Facilities #3 DD311120 IC checks & comments on Detailed Pile Cap & Substructure Design of Bldg & Facilities #3 14d 21-Jul-15 03-Aug-15 21-Jul-15 03-Aug-15 DD311140 Revise & resubmit Detailed Pile Cap & Substructure Design of Bldg & Facilities #3 to IC, Employer & ER IC checks & certifies Detailed Pile Cap & Substructure Design of Bldg & Facilities #3 DD311160 7d 11-Aug-15 17-Aug-15 11-Aug-15 17-Aug-15 Employer consents to Detailed Pile Cap & Substructure Design of Bldg & Facilities #3 0d 31-Aug-15 58d 20-Aug-15 29-Oct-15 08-Oct-15 18-Dec-15 Superstructure Design 08-Oct-15 DD311200 Prepare & submit Detailed Supertructure Design of Energy Centre to IC, ER & Employe 21d 20-Aug-15 17-Sep-15 08-Oct-15 06-Nov-15 Prepare & submit Detailed Supertructure Design of Weighbridge to IC, ER & Employer DD311205 21d 20-Aug-15 17-Sep-15 08-Oct-15 06-Nov-15 DD311210 Prepare & submit Detailed Supertructure Design of Gate House to IC, ER & Employer 17-Sep-15 08-Oct-15 06-Nov-15 DD311215 Prepare & submit Detailed Supertructure Design of AD Tanks & Bund Wall to IC, ER & Employer 21d 20-Aug-15 17-Sep-15 08-Oct-15 06-Nov-15 DD311218 Prepare & submit Method of Construction for Superstructure of Bldg #3 21d 20-Aug-15 06-Nov-15 04-Dec-15 DD311219 IC checks & certifies Method of Construction of Superstructure Design of Bldg & Facilities #3 14d 18-Sep-15 01-Oct-15 05-Dec-15 18-Dec-15 DD311220 IC checks & comments on Detailed Superstructure Design of Bldg & Facilities #3 14d 18-Sep-15 01-Oct-15 07-Nov-15 DD311240 Revise & resubmit Detailed Superstructure Design of Bldg & Facilities #3 to IC, Employer & ER 7d 02-Oct-15 08-Oct-15 DD311260 IC checks & certifies Detailed Superstructure Design of Bldg & Facilities #3 7d 09-Oct-15 15-Oct-15 28-Nov-15 04-Dec-15 Employer consents to Detailed Superstructure Design of Bldg & Facilities #3 DD311280 0d 29-Oct-15 18-Dec-15 04-Dec-15 Section 1- Sewerage System and Rising Main and Section 2- Storm Drain 11-May-15 05-Oct-15 DD411000 Prepare & submit Detailed Civil Design of external works (Section 1 & 2) to EPD & DSD 38d 27-Apr-15 19-Jun-15 11-May-15 03-Jul-15 Prepare & submit Method of Construction for External Works (Section 1 & 2) DD411015 IC checks & certifies Method of Construction of External Works (Section 1 & 2) 14d 22-Jul-15 04-Aug-15 22-Sep-15 05-Oct-15 Submit Detailed Design of External Works (Section 1 & 2) to IC, Employer & ER 21-Jul-15 DD411040 IC checks & comments on Detailed Design of External Works (Section 1 & 2) 14d 22-Jul-15 04-Aug-15 25-Aug-15 07-Sep-15 Revise & resubmit Detailed Design of External Works (Section 1 & 2) to IC, Employer & ER 11-Aug-15 DD411080 IC checks & certifies Detailed Civil Design of External Works (Section 1 & 2) 7d 12-Aug-15 18-Aug-15 15-Sep-15 21-Sep-15 Employer consents to Detailed Civil Design of External Works (Section 1 & 2) 01-Sep-15 05-Oct-15 84d 27-Apr-15 06-Aug-15 11-May-15 05-Oct-15 Section 3- Street Fire Hydrant and Section 4- Water Supply 06-Aug-15 11-May-15 05-Oct-15 84d 27-Apr-15 Prepare & submit Detailed Civil Design of external works (Section 3 & 4) to WSD 11-May-15 21d 27-Apr-15 09-Jun-15 Prena DD411130 Prepare & submit Method of Construction for External Works (Section 3 & 4) 21d 28-May-15 25-Jun-15 24-Aug-15 21-Sep-15 IC checks & certifies Method of Construction of External Works (Section 3 & 4) 05-Oct-15 DD411140 Submit Detailed Design of External Works (Section 3 & 4) to IC. Employer & ER 0d 25-Jun-15 24-Aug-15 41d DD411160 IC checks & comments on Detailed Design of External Works (Section 3 & 4) DD411180 Revise & resubmit Detailed Design of External Works (Section 3 & 4) to IC, Employer & ER 7d 10-Jul-15 16-Jul-15 08-Sep-15 14-Sep-15 IC checks & certifies Detailed Civil Design of External Works (Section 3 & 4) DD411200 23-Jul-15 DD411220 Employer consents to Detailed Civil Design of External Works (Section 3 & 4) 0d 06-Aug-15 05-Oct-15 Section 5- Road, Paving, Road Marking, Section 6- Ext. Lighting, Section 7 Fencing, Gate, Perm. Signboard 109d 28-Jul-15 04-Dec-15 21-Dec-15 DD411240 Prepare & submit Detailed Civil Design of external works (Section 5, 6, 7) to Hyd & TD 43d 28-Jul-15 24-Sep-15 10-Aug-15 09-Oct-15 DD411250 Prepare & submit Method of Construction for External Works (Section 5 ,6, 7) 25d 16-Sep-15 23-Oct-15 03-Nov-15 07-Dec-15 DD411255 IC checks & certifies Method of Construction of External Works (Section 5 ,6, 7) 14d 24-Oct-15 06-Nov-15 08-Dec-15 21-Dec-15 DD411260 Submit Detailed Design of External Works (Section 5,6,7) to IC, Employer & ER 0d 23-Oct-15 09-Nov-15 DD411280 IC checks & comments on Detailed Design of External Works (Section 5,6,7) 14d 24-Oct-15 06-Nov-15 10-Nov-15 23-Nov-15 DD411300 Revise & resubmit Detailed Design of External Works (Section 5 ,6, 7) to IC, Employer & ER 7d 07-Nov-15 13-Nov-15 24-Nov-15 30-Nov-15 DD411320 IC checks & certifies Detailed Civil Design of External Works (Section 5,6,7) 7d 14-Nov-15 20-Nov-15 01-Dec-15 07-Dec-15 Employer consents to Detailed Civil Design of External Works (Section 5 ,6, 7) DD411340 87d 12-Aug-15 24-Nov-15 27-Oct-15 04-Feb-16 Sub & Superstructure - Boundary Wall 04-Feb-16 DD411360 Prepare & submit Detailed Civil Design of external works (Sub & Superstructure - Boundary Wall) to IC, Employer & ER 43d 12-Aug-15 13-Oct-15 27-Oct-15 24-Dec-15 DD411370 25d 07-Sep-15 Prepare & submit Method of Construction for External Works (Sub & Superstructure - Boundary Wall) 13-Oct-15 16-Dec-15 21-Jan-16 DD411375 IC checks & certifies Method of Construction of External Works (Sub & Superstructure - Boundary Wall) 14d 14-Oct-15 27-Oct-15 22-Jan-16 04-Feb-16 100d IC checks & comments on Detailed Design of External Works (Sub & Superstructure - Boundary Wall) DD411380 14d 14-Oct-15 25-Dec-15 07-Jan-16 DD411400 Revise & resubmit Detailed Design of External Works (Sub & Superstructure - Boundary Wall) to IC, Employer & ER 7d 28-Oct-15 DD411420 IC checks & certifies Detailed Civil Design of External Works (Sub & Superstructure - Boundary Wall) 7d 04-Nov-15 10-Nov-15 15-Jan-16 21-Jan-16 Project:OWTF1\_v1.4Final-1 Activity Float Bar Page 10 of 27 print: 19-Sep-15 09:12 Ref.:WS-OSC-00-0-TM-0001-E, Date: 19-Sep-2015 © Oracle Corporation Milestone Critical

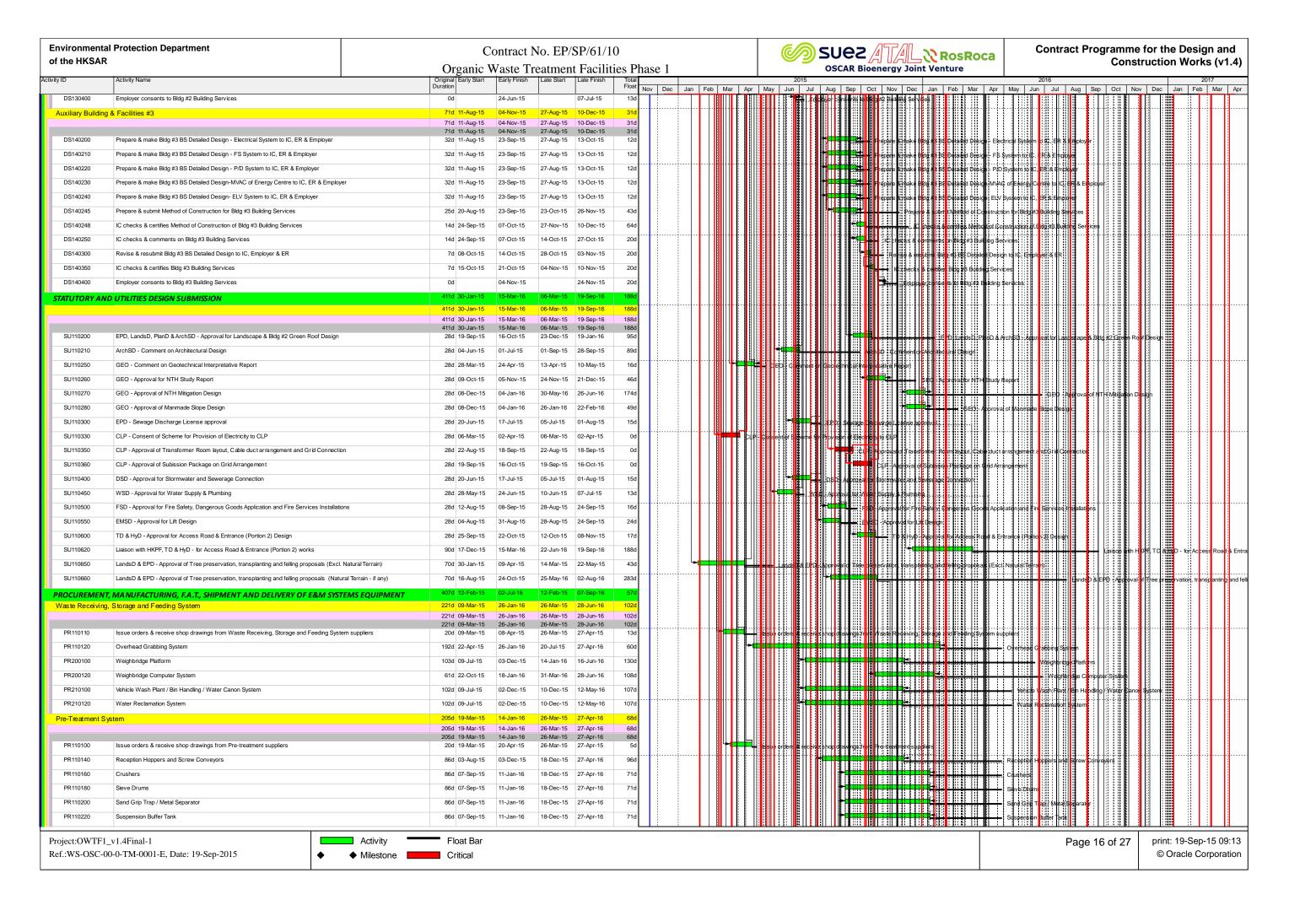


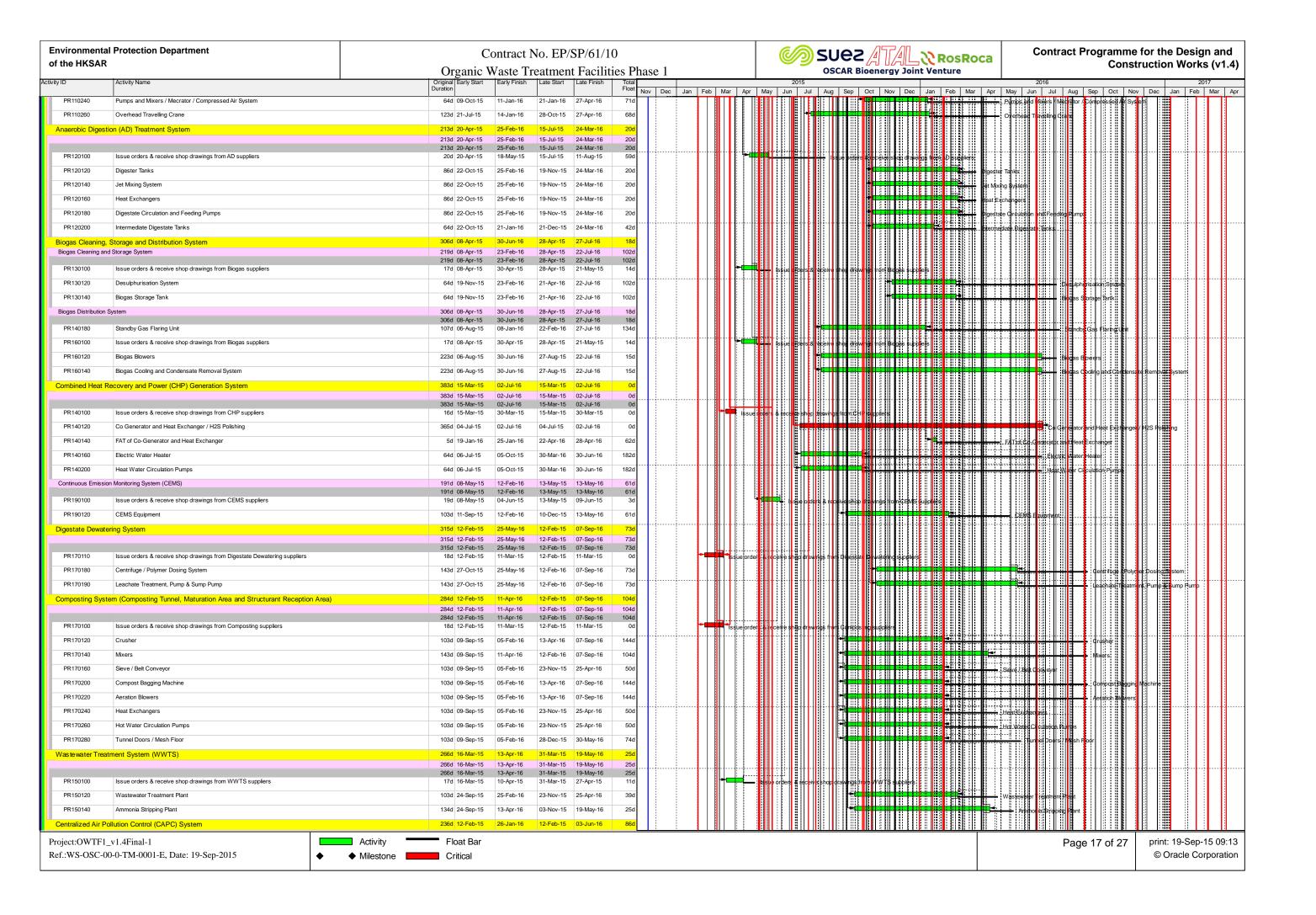


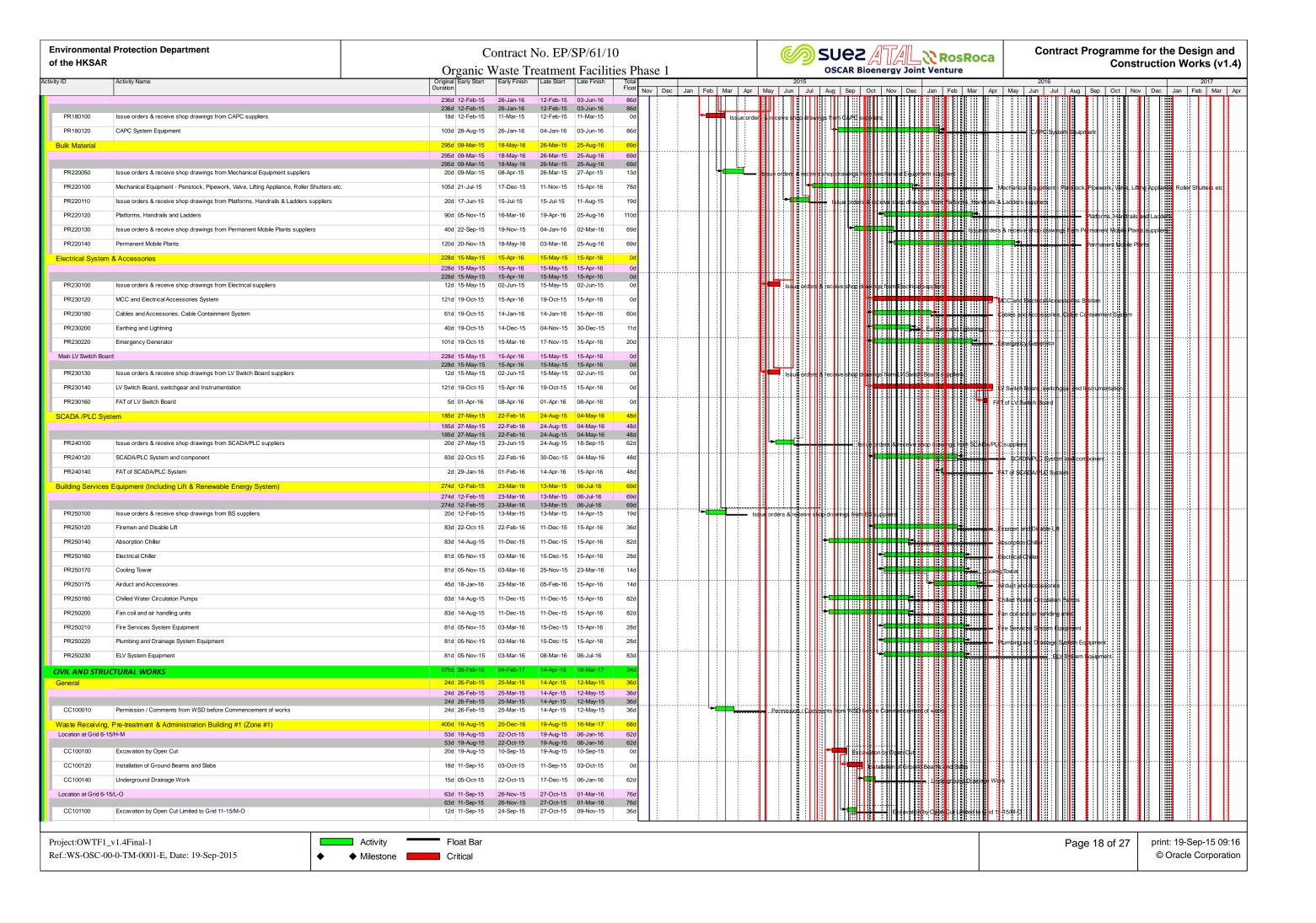


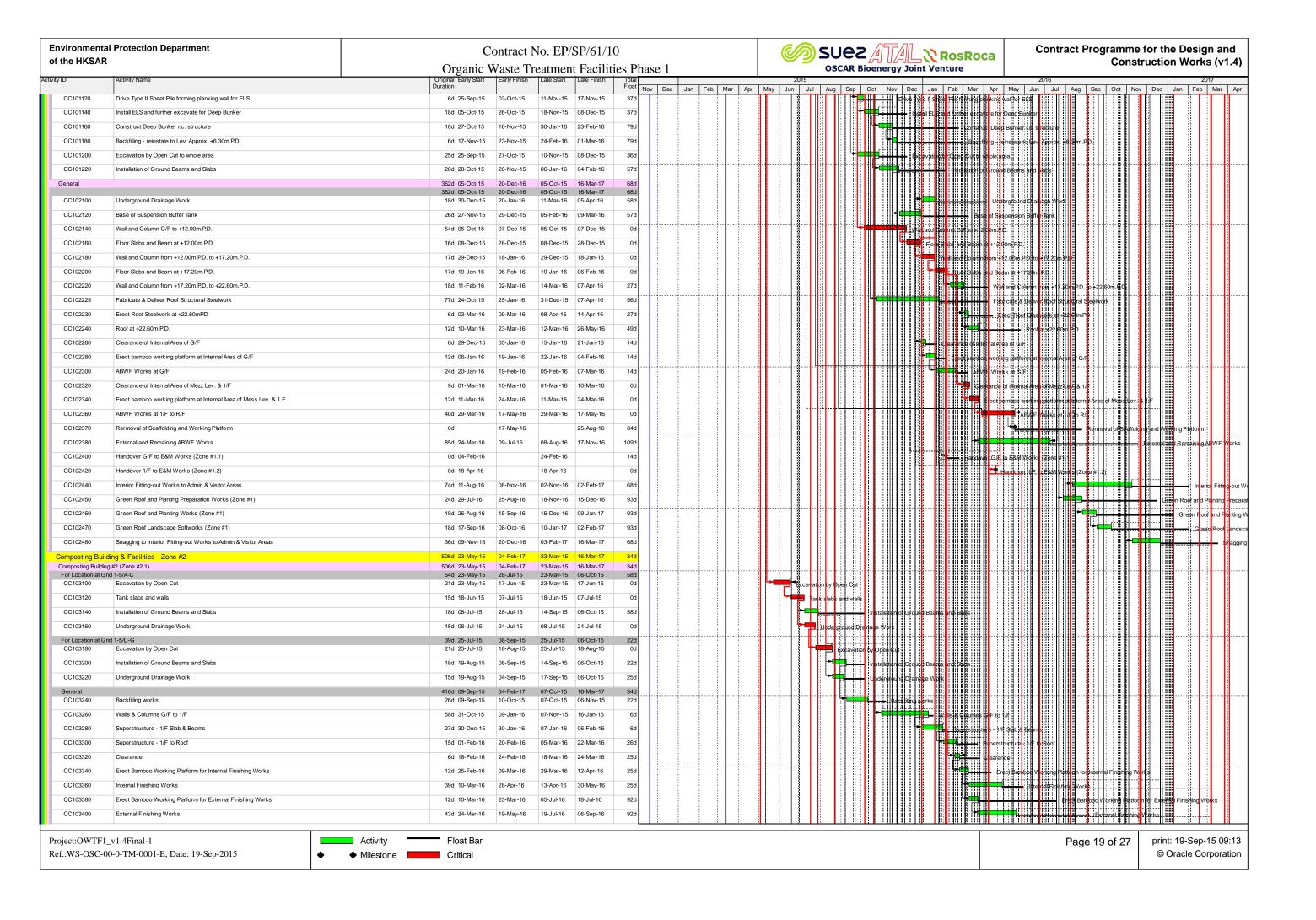


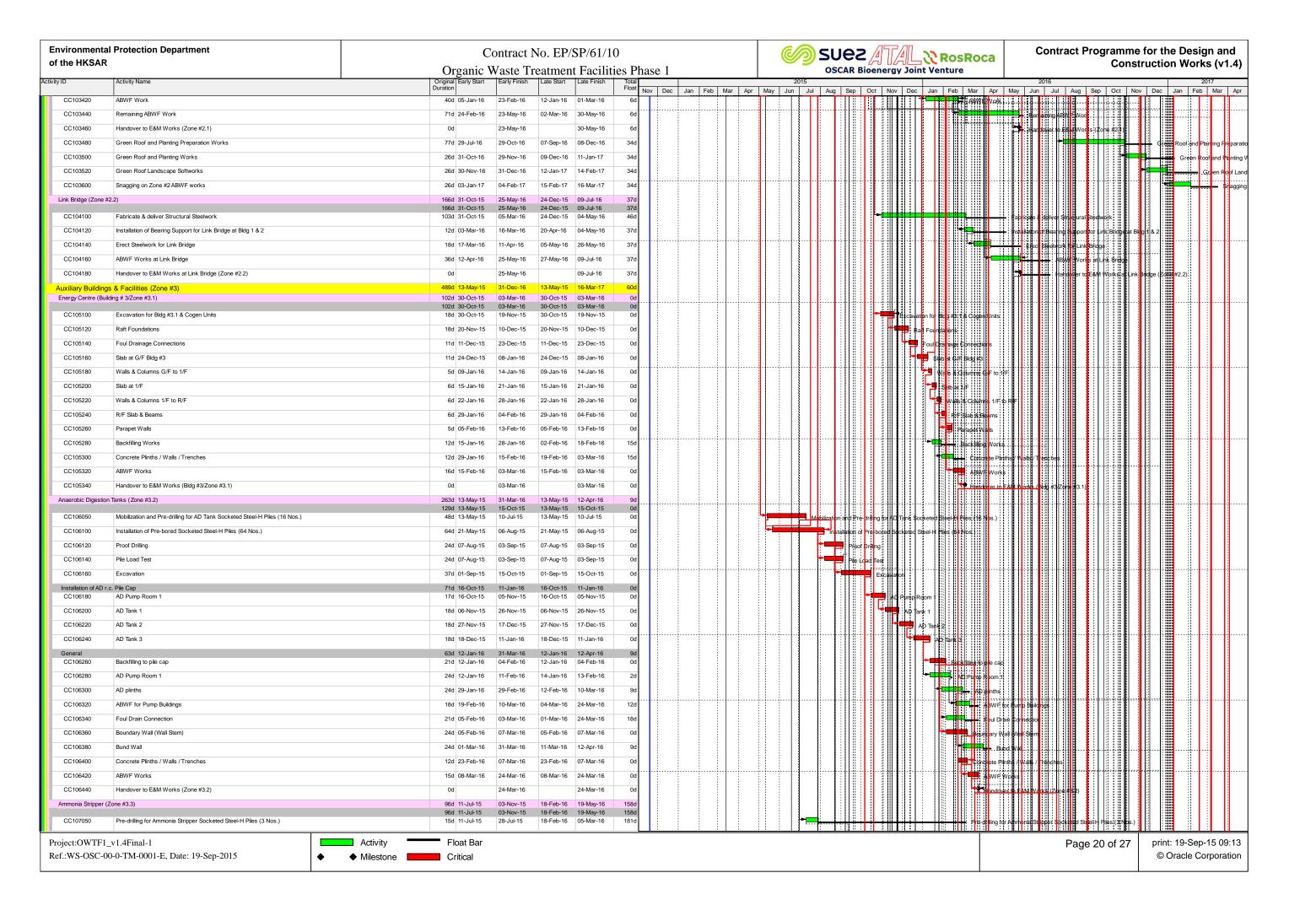


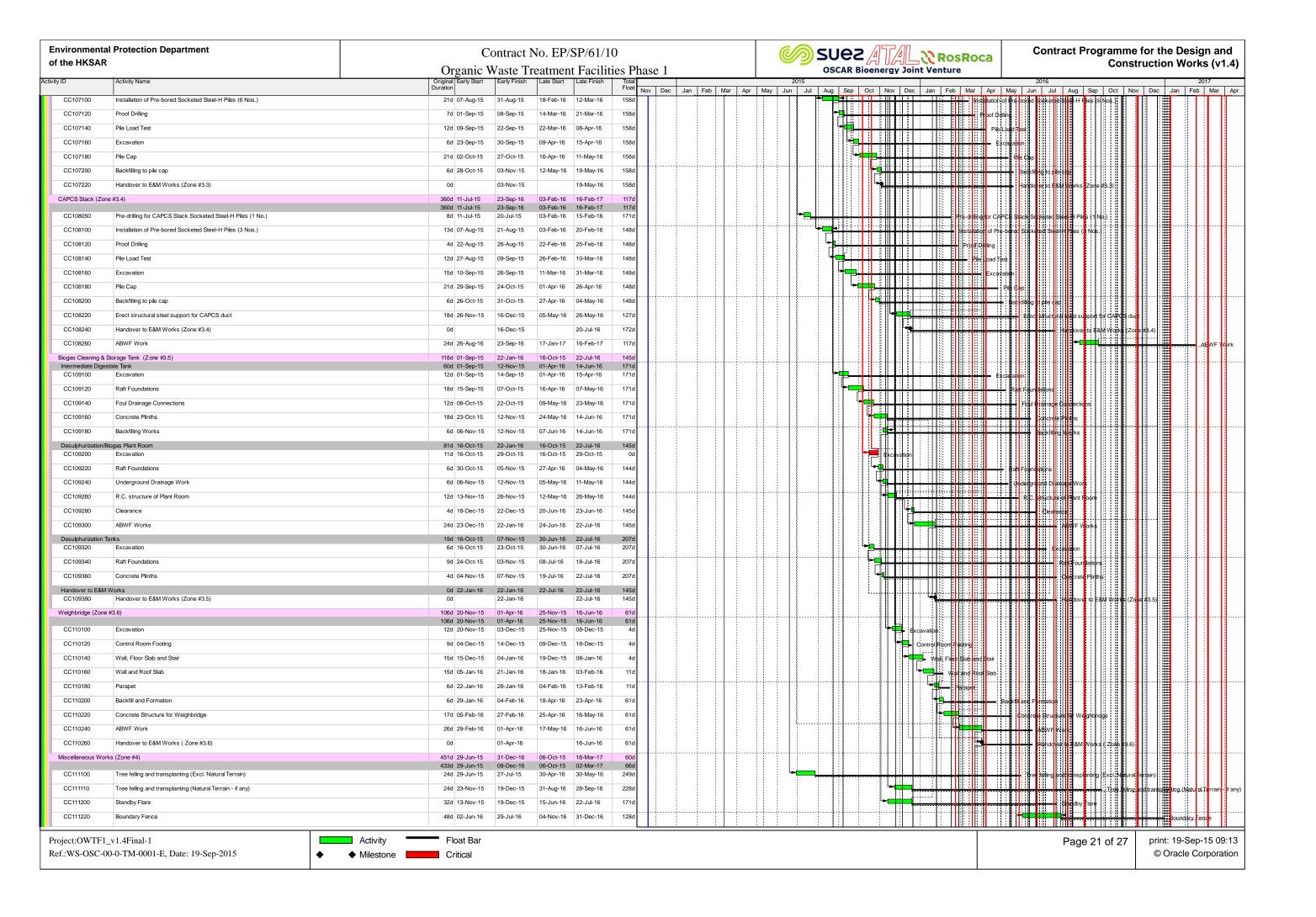


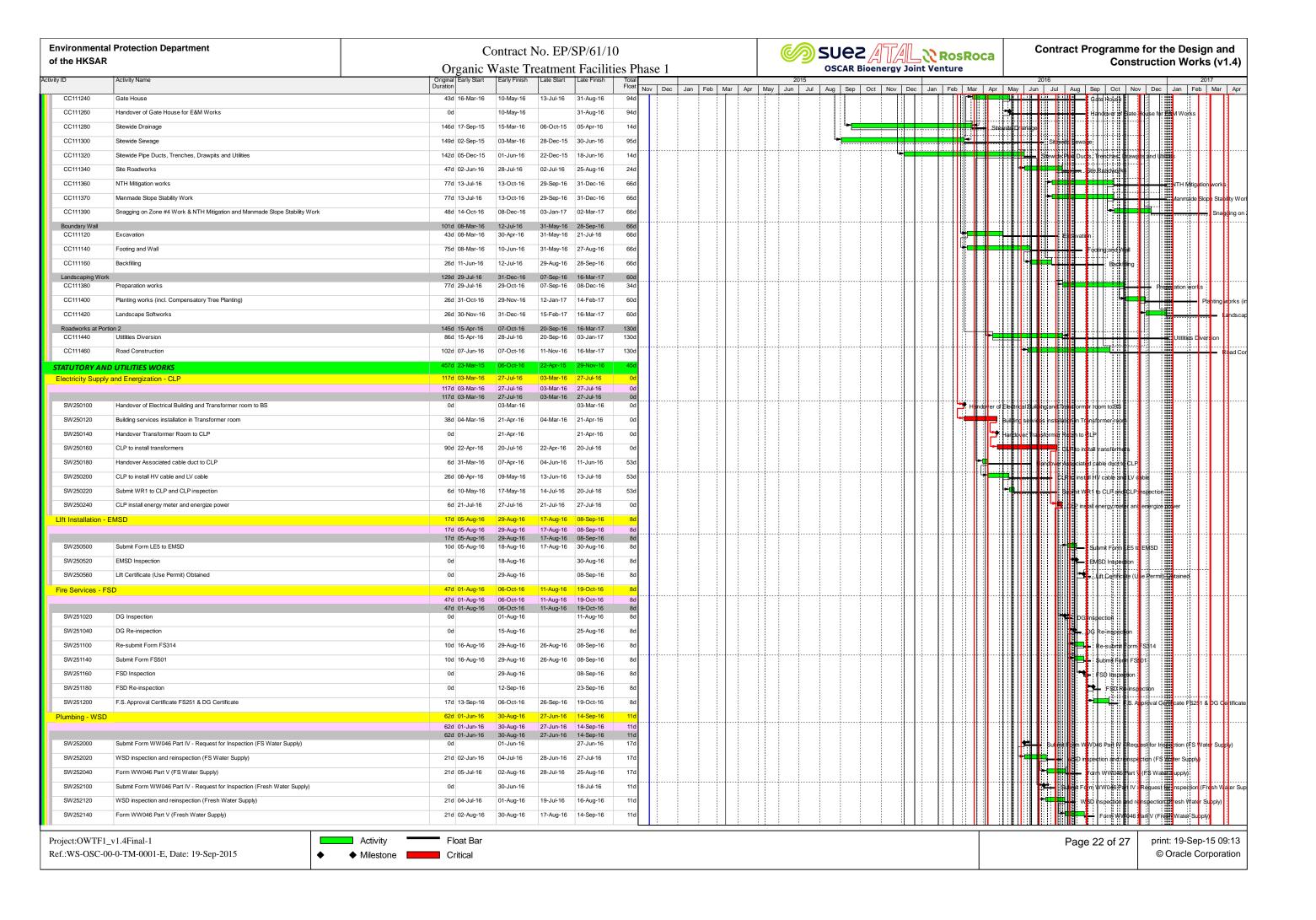


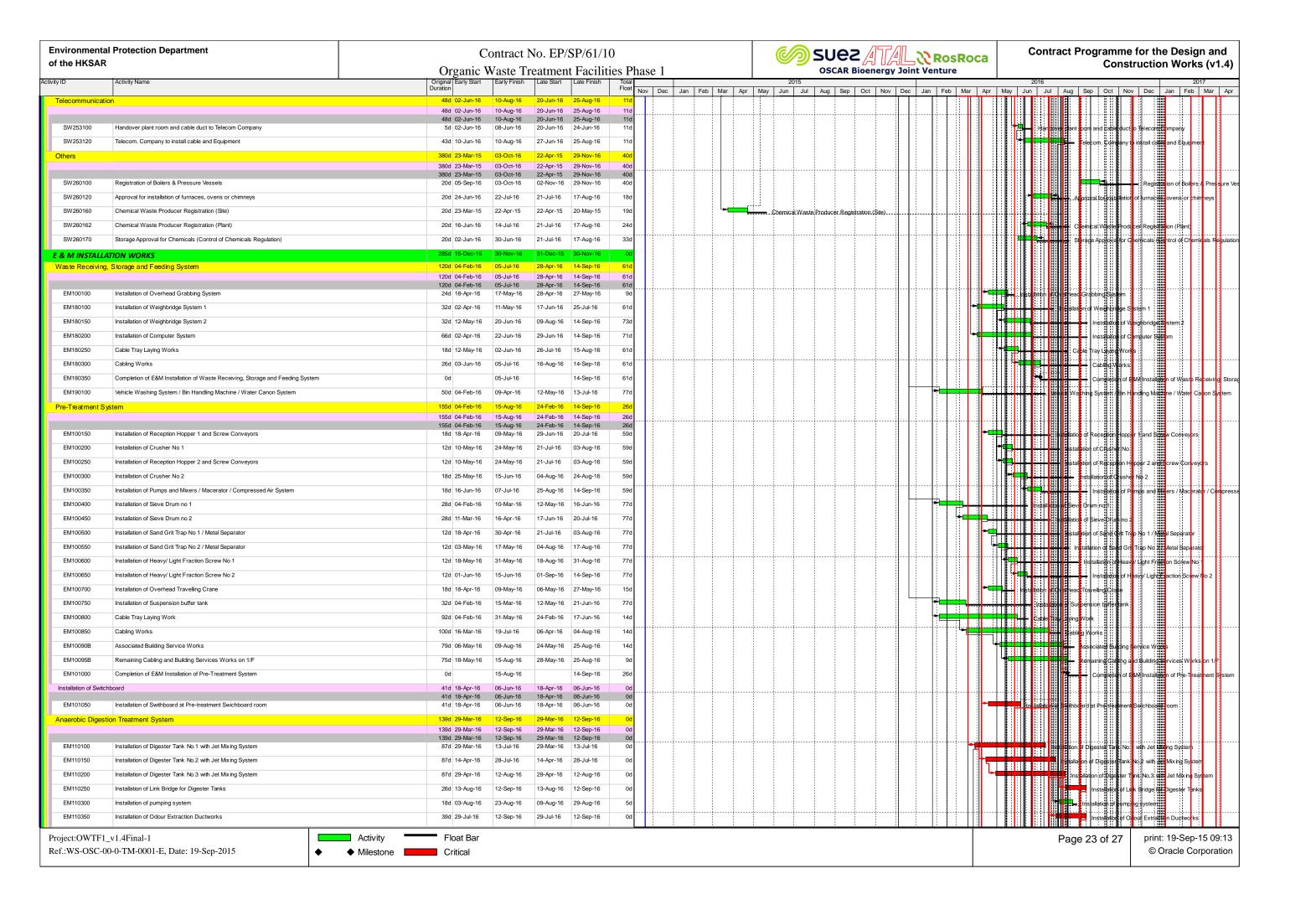


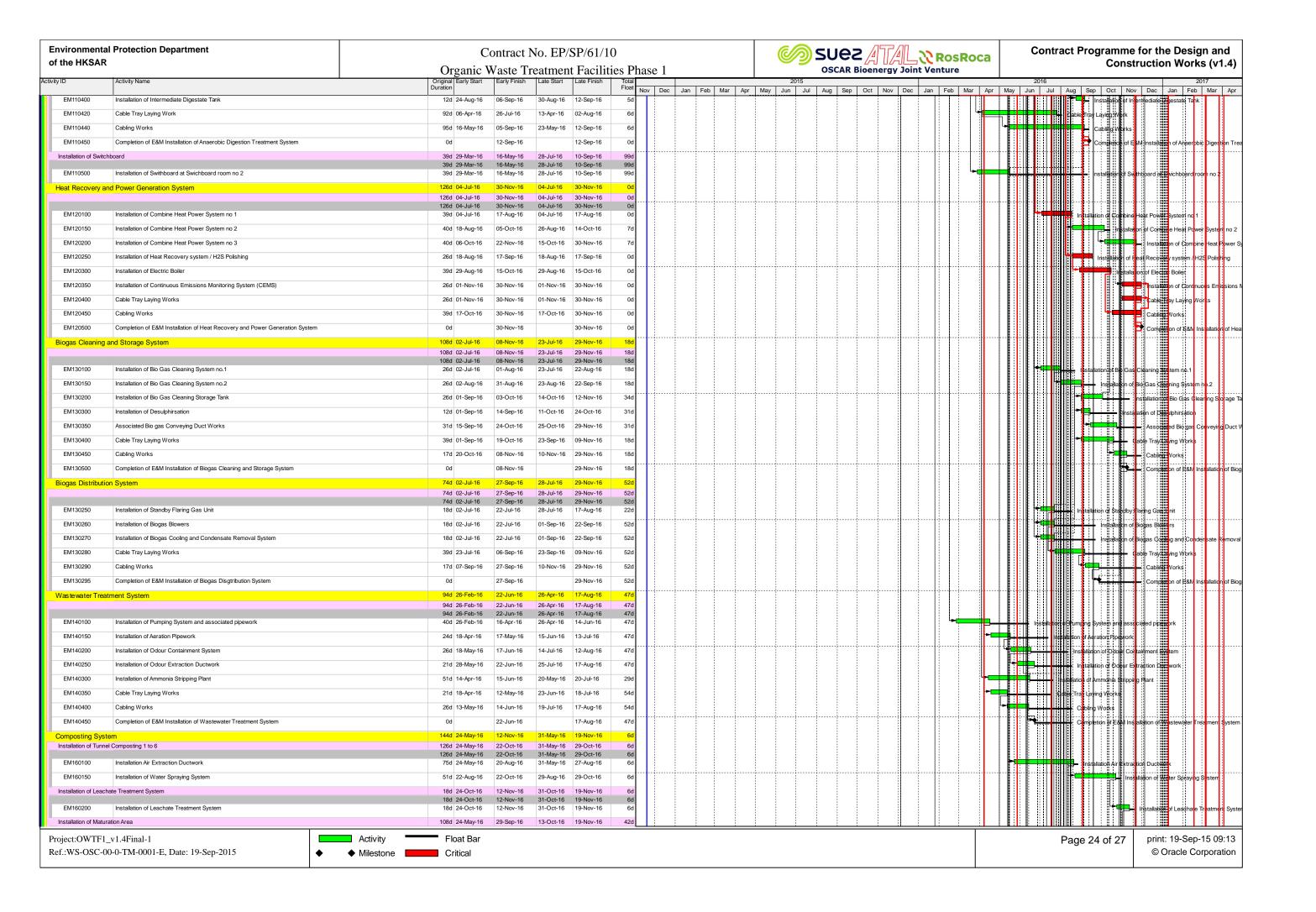


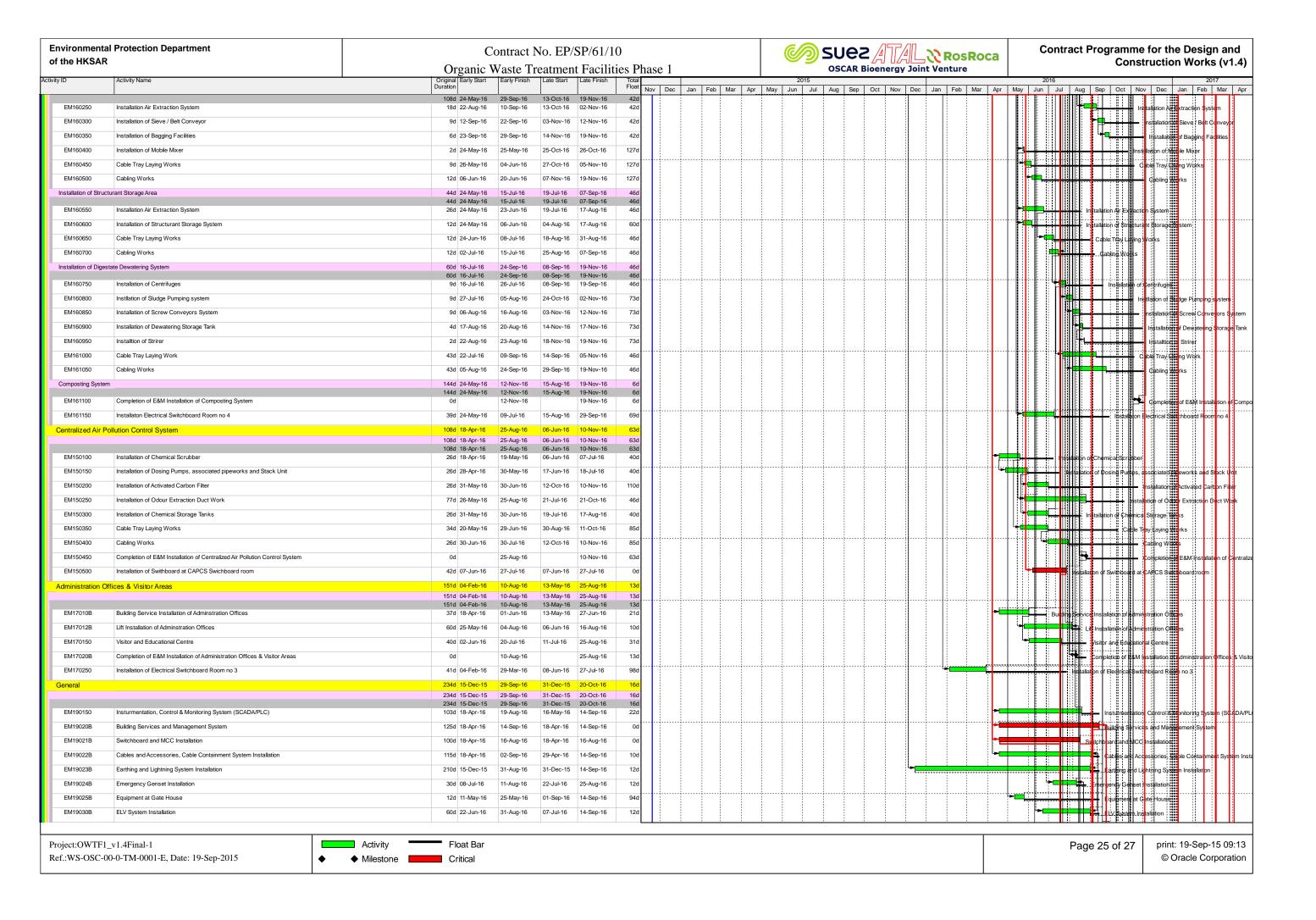












Environmental Protection Department of the HKSAR			Contract No. EP/SP/61/10					SUEZ ATAL W ROSROCA	Contract Programme for the Design and	
of the HKSAR		Orgai	nic Wa	ste Treatme	nt Facili	ties Ph	ase 1	OSCAR Bioenergy Joint Venture	Construction Works (v1.4)	
Activity ID	Activity Name	Original Early Duration	y Start Ea	ly Finish Late Start	Late Finish	Total Float	lov Dec Ian Feb Mar Ann	2015 May Jun Jul Aug Sen Oct Noy Dec Jan Feh Mar Ang	2016   2017     May   Jun   Jul   Aug   Sep   Oct   Nov   Dec   Jan   Feb   Mar   Apr	
EM19050B	Platform & Handrails (FRP)	45d 08-A	Aug-16 29-	Sep-16 26-Aug-16	3 20-Oct-16	16d	VOV Dec Sail Feb Wai Apr	way Juli Juli Aug Jep Oct Nov Dec Jali Feb Ivial Apr	Patform & Hannies (FRR)	
EM200100	Permanent Mobile Plants	45d 08-A	Aug-16 29-	Sep-16 26-Aug-16	3 20-Oct-16	16d				
Energisation of Sv	itchboards	1d 28-Ju	lul-16 28-	Jul-16 28-Jul-16	30-Sep-16	54d			Energisation of Switchtoard (Main LV Switchroam)  Energisation of Switchtoard (For Admits ration Building  Energisation of Switchtoard (For Pre-insertment System)  Energisation of Switchtoard (For Pre-insertment System)	
		1d 28-Ju 1d 28-Ju		Jul-16 28-Jul-16 Jul-16 28-Jul-16		54d 54d				
EN100100	Energisation of Switchboard (Main LV Switchroom)	1d 28-Ju		Jul-16 28-Jul-16		0d			Eregis ation of Switchtoard (Main Ly Switchrodm)	
EN100150	Energisation of Switchboard (For Anaerobic Digestion System and Dewatering System)	1d 28-Ju	Jul-16 28-	Jul-16 12-Sep-16	12-Sep-16	39d			Energisation of Switchboates For Anae objection Sys	
EN100200	Energisation of Switchboard (For Adminstration Building)	1d 28-Ju	Jul-16 28-	Jul-16 28-Jul-16	28-Jul-16	0d			Energisation of Switchloard (For Administration Building	
EN100250	Energisation of Switchboard (For Composting System)	1d 28-Ju	Jul-16 28-	Jul-16 30-Sep-16	30-Sep-16	54d			Exercisation of Switchtpard (For Composting System	
EN100300	Energisation of Switchboard (For Pre-Traetment System)	1d 28-Ju	Jul-16 28-	Jul-16 28-Jul-16	28-Jul-16	0d			Epetoisation of Swachtoard (For Pre-Traetment System)	
EN100350	Energisation of Switchboard (For Centralized Air Pollution System)	1d 28-Ju	Jul-16 28-	Jul-16 28-Jul-16	28-Jul-16	0d			L Energis Ition of Styrict Loard (Før Central zed Air Pollution System)	
TESTING AND CO		189d 29-Ju		Mar-17 18-Aug-16		0d				
	ding hydraulic testing & pipe pressure testing)	134d 29-Ju			3 14-Jan-17	6d				
One reeming (mena-	ang ryatame tooting a pipe process tooting	134d 29-Ju	lul-16 07-	Jan-17 18-Aug-16	3 14-Jan-17	6d				
TC100100	Site Testing of Pretreatment System	134d 29-Ju 27d 15-Si		Jan-17 18-Aug-16 Oct-16 15-Sep-16		6d 0d				
TC100150	Site Testing of Anaerobic Digestion Treatment System	30d 13-S		Oct-16 13-Sep-16		0d			Ste Testing of Pital eatment System  Ste Testing of Arma robic (bigestion Treatment Sy	
TC100130	Site Testing of Heat Recovery and Power Generation System	30d 01-D		Jan-17 01-Dec-10		Od			Ste Vesting of Apperous West Page 19	
									Site Testing of Heat Recove	
TC100250	Site Testing of Biogas Cleaning and Storage System	30d 09-N		Dec-16 30-Nov-10		18d			Site Testing of Biogas Clean	
TC100300	Site Testing of WWTS	51d 29-Ju		Sep-16 18-Aug-16		17d			Ste Testing of WWYS	
TC100350	Site Testing of CAPCS	51d 26-A	_	Oct-16 11-Nov-16		63d			Sile resumg of Charles	
TC100400	Site Testing of Composting System	43d 14-N	Nov-16 05-	Jan-17 21-Nov-10	6 12-Jan-17	6d			Site Testing of Corrocating	
TC100450	Site Testing of Weighbridge System & Vehicle Wash System	39d 29-Ju	Iul-16 12-	Sep-16 28-Nov-10	3 14-Jan-17	101d			Site Testing of Weighbridg	
System Commissi	oning (24 hours)	92d 20-O		Jan-17 20-Oct-16		0d				
		92d 20-O 92d 20-O		Jan-17 20-Oct-16 Jan-17 20-Oct-16		Od Od				
TC110100	Pre-Treatment Building & Facilities	1d 20-O	Oct-16 20-	Oct-16 20-Oct-16	20-Oct-16	0d			Pre-Treatment B <b>riti</b> fing & Facilities	
TC110300	Biogas Cleaning and Storage System	1d 14-D	Dec-16 14-	Dec-16 07-Jan-17	07-Jan-17	24d			Biogas Cleaning and Storag	
TC110500	Wastewater Treatment System	1d 11-Ja	an-17 11-	Jan-17 11-Jan-17	11-Jan-17	0d			Wastewater Tream ent Sys	
TC110550	Centralized Air Pollution Control System	1d 12-Ja	Jan-17 12-	Jan-17 12-Jan-17	12-Jan-17	0d			Certtra zeet Air Pollution Co	
TC110850	Vehicle Washing System	1d 18-Ja	Jan-17 18-	Jan-17 18-Jan-17	18-Jan-17	0d			Venice Washing System	
TC110900	Master Control System - SCADA/PLC System	1d 19-Ja	Jan-17 19-	Jan-17 19-Jan-17	' 19-Jan-17	0d			Master Control System -	
Anaerobic Digestion	Treatment System	3d 21-O	Oct-16 23-	Oct-16 21-Oct-16	6 06-Jan-17	75d				
TC110150	Anaerobic Digester no 1	3d 21-O 1d 21-O		Oct-16 21-Oct-16 Oct-16 21-Oct-16		75d 0d			Anaerobie Diges no 1	
TC110200	Anaerobic Digester no 2	1d 22-0		Oct-16 05-Jan-17		75d				
TC110250	Anaerobic Digester no 3	1d 23-0		Oct-16 06-Jan-17		75d				
		3d 08-Ja		Jan-17 08-Jan-17		Od Od			Anaérob Divestel no 3	
neat Recovery and r	Power Generation System	3d 08-Ja		Jan-17 08-Jan-17	10-Jan-17	0d				
TC110350	Combine Heat Power System no 1	1d 08-Ja	Jan-17 08-	Jan-17 08-Jan-17	08-Jan-17	0d			Combine Heat Power Syste	
TC110400	Combine Heat Power System no 2	1d 09-Ja	lan-17 09-	Jan-17 09-Jan-17	09-Jan-17	0d			Combine Heat Power Syste	
TC110450	Combine Heat Power System no 3	1d 10-Ja	Jan-17 10-	Jan-17 10-Jan-17	10-Jan-17	0d			Combine Heat Power Syste	
Composting System		3d 13-Ja 3d 13-Ja		Jan-17 13-Jan-17 Jan-17 13-Jan-17		0d 0d				
TC110600	Tunnel Composting nos 1 - 3	1d 13-Ja		Jan-17 13-Jan-17		0d			Turnel Composting nos 1	
TC110650	Tunnel Composting nos 4 - 6	1d 14-Ja	Jan-17 14-	Jan-17 14-Jan-17	' 14-Jan-17	0d			Tunne Composting nos 4	
TC110700	Maturation Area Facilities	1d 15-Ja	Jan-17 15-	Jan-17 15-Jan-17	' 15-Jan-17	0d			Maturation Area Facilities	
Weighbridge System		2d 16-Ja	Jan-17 17-	Jan-17 16-Jan-17		0d				
TC110750		2d 16-Ja	Jan-17 17-	Jan-17 16-Jan-17	17-Jan-17	Od Od				
	Weighbridge System No 1	1d 16-Ja		Jan-17 16-Jan-17					Węigitoridae System No	
TC110800	Weighbridge System No 2	1d 17-Ja		Jan-17 17-Jan-17		0d			Weighbrid je System No	
Process Startup, I	Process Commissioning & Plant Commissioning	146d 22-O 90d 22-O		Mar-17 22-Oct-16 Jan-17 22-Oct-16		Od Od				
		90d 22-O	Oct-16 19-	Jan-17 22-Oct-16	19-Jan-17	0d				
PS900100	N2 Purging of Anaerobic Digester No 1	7d 22-O		Oct-16 22-Oct-16		0d			N2 Purding of Anaerobio Digestur No 1	
PS900150	Inoculate Anaerobic Digester No.1 (Seeding)	14d 29-O		Nov-16 29-Oct-16		0d			Inqqulate Anaerobic Digeste No. I Seedin	
PS900200	N2 Purging of Anaerobic Digester No 2	7d 12-N	Nov-16 18-	Nov-16 28-Nov-10	04-Dec-16	16d			N2 Purging of Anaerotic Digester No	
PS900250	N2 Purging of Anaerobic Digester No 3	7d 19-N	Nov-16 25	Nov-16 05-Dec-10	11-Dec-16	16d			N2:Purging of Anaerobic Digester I	
PS900300	Start up test with Anaerobic Digester No 1	30d 12-N	Nov-16 11-	Dec-16 12-Nov-1	11-Dec-16	0d			Start up testiwith An erobic Digest	
Project:OWTF1_ Ref.:WS-OSC-00	v1.4Final-1 -0-TM-0001-E, Date: 19-Sep-2015	Activity Float I  ♦ Milestone Critica		,		,			Page 26 of 27 print: 19-Sep-15 09:13 © Oracle Corporation	

**Environmental Protection Department** SUEZ ATAL X RosRoca **Contract Programme for the Design and** Contract No. EP/SP/61/10 of the HKSAR **Construction Works (v1.4)** OSCAR Bioenergy Joint Venture Organic Waste Treatment Facilities Phase 1 Total Superior Total PS900350 Biogas Production from Anaerobic Digester No 1 7d 19-Dec-16 25-Dec-16 03-Jan-17 09-Jan-17 PS900400 Start-Up of Gas System (Including Desulphurisation System) PS900450 Dewatering Test and Start-Up of Dewatering System 15d 19-Dec-16 02-Jan-17 22-Dec-16 05-Jan-17 PS900500 14d 03-Jan-17 16-Jan-17 06-Jan-17 19-Jan-17 Start-Up of Composting System PS900550 Transfering 50% Digester from Anaerobic Digester No.1 to No.2 1d 19-Dec-16 19-Dec-16 19-Dec-16 PS900600 Start up test with Anaerobic Digester No 2 30d 20-Dec-16 18-Jan-17 20-Dec-16 18-Jan-17 PS900650 Biogas Production from Anaerobic Digester No 2 PS900700 Transfering 50% Digester from Anaerobic Digester No.2 to No.3 1d 19-Jan-17 19-Jan-17 19-Jan-17 PS900750 Start up test with Anaerobic Digester No 3 30d 21-Dec-16 19-Jan-17 21-Dec-16 19-Jan-17 Biogas Production from Anaerobic Digester No 3 7d 13-Jan-17 19-Jan-17 13-Jan-17 19-Jan-17 PS900800 39d 20-Jan-17 27-Feb-17 20-Jan-17 27-Feb-17 39d 20-Jan-17 27-Feb-17 20-Jan-17 27-Feb-17 26d 20-Jan-17 14-Feb-17 20-Jan-17 14-Feb-17 PS900850 Process Commissioning with Anaerobic Digester No 1&3 (Assume 2 nos. Anaerobic digesters) PS900880 Process Commissioning with Anaerobic Digester No 2&3 (Assume another 2 nos. Anaerobic digesters) 26d 02-Feb-17 27-Feb-17 02-Feb-17 27-Feb-17 30d 15-Feb-17 16-Mar-17 15-Feb-17 16-Mar-17 Plant Commissioning 30d 15-Feb-17 16-Mar-17 15-Feb-17 16-Mar-17 PS900900 30d 15-Feb-17 16-Mar-17 15-Feb-17 16-Mar-17 1d 16-Mar-17 17-Mar-17 16-Mar-17 17-Mar-17 1d 16-Mar-17 17-Mar-17 16-Mar-17 17-Mar-17 1d 16-Mar-17 17-Mar-17 16-Mar-17 17-Mar-17 Completion of the Design and the Works including Testing and Commissioning 16-Mar-17 16-Mar-17

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Commencement of the Operation

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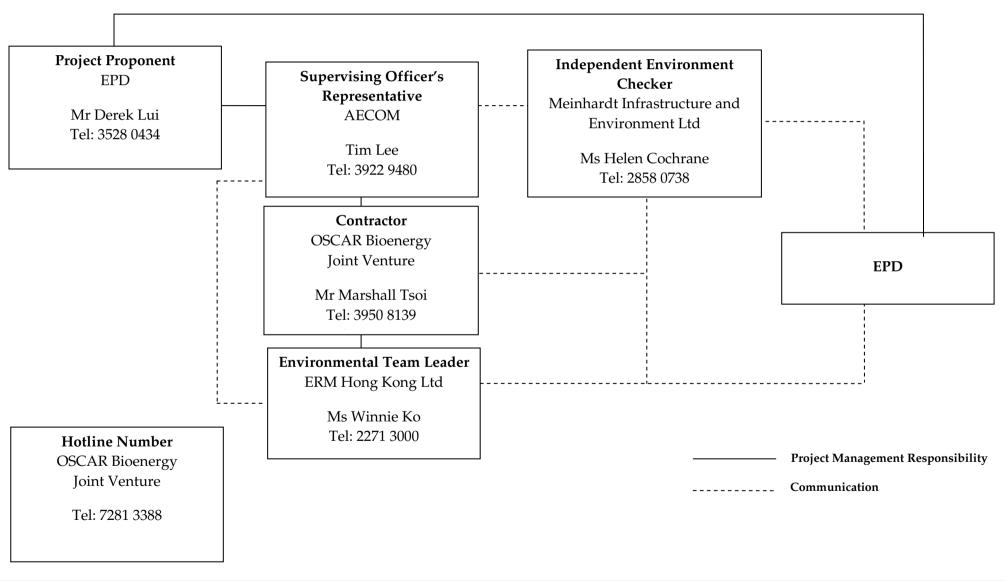
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# Annex D

# Project Organization Chart with Contact Details

### Project Organization During Construction Phase (with contact details)



# Annex E

# Implementation Schedule of Mitigation Measures

# Annex E Summary of Mitigation Measures Implementation Schedule

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
Summary o		al Mitigation Measures in the EIA and EM&A Manual	I	<u> </u>
0				
A. A. 3.73	ir Quality 2.5	Air Pollution Control (Construction Dust) Regulation & Good Site Practices  Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.  Use of frequent watering for particularly dusty construction areas and areas close to ASRs.  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 should be applied to aggregate fines.  Open stockpiles should 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.  Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.  Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading points, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods.  Imposition of speed controls for vehicles on unpaved site roads. 8 kilometers per hour is the recommended limit.  Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.  Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.  Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed.  Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.	Construction Site / During Construction Period	
<u> </u>				
	lazard to Life			T /
4.102	3.3	<u>Construction Phase</u>	Construction Site / During	V

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
		<ul> <li>The number of workers on site during construction stage should be kept at the same level as the assessment.</li> <li>Construction works should be suspended when delivery of chlorine takes place.</li> <li>3m high fence should be constructed along the boundary facing the SHWWTW.</li> <li>Emergency evacuation procedures should be formulated and the Contractor should ensure all workers on site should be familiar with these procedures as well as the route to escape in case of gas release incident. Relevant Departments, such as Fire Services Department (FSD), should be consulted during the development of Emergency procedures. Diagram showing the escape routes to a safe place should be posted in the site notice boards and at the entrance/exit of site. A copy of the latest version emergency procedures should be dispatched to Tung Chung Fire Station for reference once available.</li> <li>The emergency procedures should specify means of providing a rapid and direct warning (e.g. Siren and Flashing Light) to construction workers in the event of chlorine gas release in the SHWWTW.</li> <li>The Contractor should establish a communication channel with the SHWWTW operation personnel and FSD during construction stage. In case of any hazardous incidents in the treatment works, operation personnel of SHWWTW should advise the Contractor to inform construction workers to proceed with emergency procedure. The Contractor should appoint a Liaison Officer to communicate with FSD Incident Commander on site in case of emergency.</li> <li>Introduction training should be provided to any staff before carryout construction works at the Project site.</li> <li>Periodic drills should be coordinated and conducted to ensure all construction personnel are familiar with the emergency procedures. Upon completion of the drills, a review on every step taken should be conducted to identify area of improvement. Prior notice of periodic drills should be given to Station Commander of Tung Chung Fire Station. Joint operational exercise with FSD a</li></ul>	Construction Period	
C. V. 5.44	Vater Quality 4.5	Construction site run-off and general construction activities:  The mitigation measures as outlined in the ProPECC PN 1/94 Construction Site Drainage should be adopted where applicable.	Construction Site / During Construction Period	<>
5.45	4.5	Excavation of Soil Materials  The construction programme should be properly planned to minimise soil excavation, if any, in rainy seasons. This prevents soil erosion from exposed soil surfaces. Any exposed soil surfaces should also be properly protected to minimise dust emission. In areas where a large amount of exposed soils exist, earth bunds or sand bags should be provided. Exposed	Construction Site / During Construction Period	<>>

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
		stockpiles should be covered with tarpaulin or impervious sheets at all times. The stockpiles of materials should be placed at locations away from any stream courses so as to avoid releasing materials into the water bodies. Final surfaces of earthworks should be compacted and protected by permanent work.		
5.46	4.5	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) Regulation should be observed and complied with for control of chemical wastes.	Construction Site / During Construction Period	<b>V</b>
5.47	4.5	Maintenance of vehicles and equipments involving activities with potential for leakage and spillage should only be undertaken within the areas which appropriately equipped to control these discharges.	Construction Site / During Construction Period	<b>V</b>
5.48	4.5	Oils and fuels should only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas should be sited on sealed areas in order to prevent spillage of fuels and solvents to the nearby watercourses. All waste oils and fuels should be collected in designated tanks prior to disposal.	Construction Site / During Construction Period	<>
5.49	4.5	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 labeled, 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.	Construction Site / During Construction Period	<>>
5.50		Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid entering to the nearby watercourses. Stockpiles of cement and other construction materials should be kept covered when not being used. Rubbish and litter from construction sites should also be collected to prevent spreading of rubbish and litter from the site area. It is recommended to clean the construction sites on a regular basis.	Construction Site / During Construction Period	<>>

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
5.51	4.5	Sewage Effluent The presence of construction workers generates sewage. It is recommended to provide sufficient chemical toilets in the works areas. The toilet facilities should be more than 30m from any watercourse. A licensed waste collector should be deployed to clean the chemical toilets on a regular basis.	Work site/During the construction period	1
5.52	4.5	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the project. Regular environmental audit on the construction site can provide an effective control of any malpractices and can achieve continual improvement of environmental performance on site.	Work Site / During Construction Period	<b>V</b>

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
5.53	4.5	Nullah Decking To minimize the potential water quality impacts from the nullah reconstruction works, the practices outlined below should be adopted where applicable:  • The proposed works should be carried out within the dry season between October and March when the flow in the open nullah is low.  • The use of less or smaller construction plants may be specified to reduce the disturbance to the nullah bed.  • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from the nullah and any water courses during carrying out of the construction works.  • Stockpiling of construction materials and dusty materials should be covered and located away from the nullah 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 nullah and nearby water receivers.  • Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the nullah, where practicable.  • Construction effluent, site run-off and sewage should be properly collected and/or treated.  • Any works site inside the nullah should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the water quality.  • Proper shoring may need to be erected in order to prevent soil/mud from slipping into the nullah and nearby watercourse.  • Supervisory staff should be assigned to station	Work Site / During Construction Period	N/A
D. W	Vaste Managen	nent		
6.41	5.4	Good Site Practices  Recommendations for good site practices during the construction phase would include:  Obtain relevant waste disposal permits from appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354) and subsidiary Regulations and the Land (Miscellaneous Provisions) Ordinance (Cap. 28);  Provide staff training for proper waste management and chemical handling procedures;  Provide sufficient waste disposal points and regular waste collection;  Provide appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;  Carry out regular cleaning and maintenance programme for drainage systems, sumps and	Work Site / During Construction Period	<>

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
		oil interceptors; • Separate chemical wastes for special handling and disposed of to licensed facility for treatment; and • Employ licensed waste collector to collect waste.		
6.42	5.5	Waste Reduction Measures  Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:  • Design foundation works that could minimise the amount of excavated material to be generated;  • Provide training to workers on the importance of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling;  • Sort out demolition debris and excavated materials from demolition works to recover reusable/ recyclable portions (i.e. soil, broken concrete, metal etc.);  • Segregate and store different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;  • Encourage the collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the workforce; and  • Plan and stock construction materials carefully to minimize the amount of waste to be generated and to avoid unnecessary generation of waste.	Work Site/During Design & Construction Period	
6.44	5.7	Excavated and C&D Materials  In order to minimise the impact resulting from collection and transportation of C&D material for off-site disposal, the excavated material arising from site formation and foundation works should be reused on-site as backfilling material and for landscaping works as far as practicable. Other mitigation requirements are listed below:  • A WMP, which becomes part of the Environmental Management Plan (EMP), should be prepared in accordance with ETWB TCW No.19/2005;  • A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites) should be adopted for easy tracking; and  • In order to monitor the disposal of excavated and C&D material at public filling facilities and landfills and to control fly-tipping, a trip-ticket system should be adopted (refer to ETWB TCW No. 31/2004).	Work Site/During Design & Construction Period	√
6.45 <b>-</b> 6.46	5.8 - 5.9	An EMP should be prepared and implemented in accordance with ETWB TCW No. 19/2005 which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from construction	Work Site/During Design & Construction Period	V

EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
	activities. The EMP should be submitted to the Supervising Officer (SO) and Supervising Officer's Representative (SOR) for approval. The EMP should be reviewed regularly and updated, preferably on a monthly basis.  A system should be devised to work for on-site sorting of excavated and C&D materials and promptly removing all sorted and process materials arising from the construction activities to minimize temporary stockpiling on-site. The system should be included in the EMP identifying the source of generation, estimated quantity, arrangement for on-site sorting, collection, temporary storage areas and frequency of collection by recycling Contractors or frequency of removal off-site.		
5.10	Chemical Waste Should chemical wastes be produced at the construction site, the Contractor would be required to register with 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, or corrosive). The Contractor should employ a licensed collector to transport and dispose of the chemical wastes, to either the CWTC in Tsing Yi, or any other licensed facilities, in accordance with the Waste Disposal (Chemical Waste) General) Regulation.	Work Site / During Construction Period	<>
5.11	General Refuse General refuse should be stored in enclosed bins or compaction units separated from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	Work Site / During Construction Period	<>
Table 6.1	<ul> <li>Construction Phase</li> <li>Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical</li> <li>Compensatory tree planting should be provided to compensate for felled trees.</li> <li>Compensation tree species shall be chosen from both indigenous and ornamental species</li> <li>Compensatory tree planting quantities shall be as per DLO approved requirement.</li> <li>Control of night-time lighting</li> <li>Erection of decorative screen hoarding compatible with the surrounding setting</li> </ul>	Work site/During Design & Construction Stages	<>
	5.10  5.11	activities. The EMP should be submitted to the Supervising Officer (SO) and Supervising Officer's Representative (SOR) for approval. The EMP should be reviewed regularly and updated, preferably on a monthly basis.  A system should be devised to work for on-site sorting of excavated and C&D materials and promptly removing all sorted and process materials arising from the construction activities to minimize temporary stockpiling on-site. The system should be included in the EMP identifying the source of generation, estimated quantity, arrangement for on-site sorting, collection, temporary storage areas and frequency of collection by recycling Contractors or frequency of removal off-site.  5.10  Chemical Waste Should chemical wastes be produced at the construction site, the Contractor would be required to register with 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, or corrosive). The Contractor should employ a licensed collector to transport and dispose of the chemical wastes, to either the CWTC in Tsing Yi, or any other licensed facilities, in accordance with the Waste Disposal (Chemical Waste) General) Regulation.  5.11  General Refuse General refuse should be stored in enclosed bins or compaction units separated from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.  Construction Phase  Topsoil, where identified, should be stripped and stored for r	activities. The EMP should be submitted to the Supervising Officer (SO) and Supervising Officer's Representative (SOR) for approval. The EMP should be reviewed regularly and updated, preferably on a monthly basis.  A system should be devised to work for on-site sorting of excavated and C&D materials and promptly removing all sorted and process materials arising from the construction activities to minimize temporary stockpiling on-site. The system should be included in the EMP identifying the source of generation, estimated quantity, arrangement for on-site sorting, collection, temporary storage areas and frequency of collection by recycling Contractors or frequency of removal off-site.  5.10  Chemical Wiste  Should chemical wastes be produced at the construction site, the Contractor would be required to register with 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 waste should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste should be grown on the site of the contractor should employ a licensed collector to transport and dispose of the chemical wastes, to either the CWTC in Tsing Yi, or any other licensed facilities, in accordance with the Waste Disposal (Chemical Waste) General Refuse (Such as explosive, flammable, oxidizing, irritant, toxic, harmful, or corrosive). The Contractor should employ a licensed collector should be employed by the contractor to remove general refuse should be stored in enclosed bins or compaction units separated from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.  Indicape and Visual  Table 6.1  Topsoil, where identified, should be stri

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
8.25	7.3	Good Site Practice:  Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program;  Mobile plant, if any, should be sited as far from noise sensitive receivers (NSRs) as possible;  Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;  Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and  Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	Work site/During Design & Construction Stages	√

#### Remark:

- √ Compliance of Mitigation Measures
- Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by OSCAR Bioenergy JV
- Δ Deficiency of Mitigation Measures but rectified by OSCAR Bioenergy JV
- N/A Not Applicable in Reporting Period

# Annex F

# Waste Flow Table

# No. EP/SP/61/10 of Organic Waste Treatment Facilities Phase I Monthly Summary Waste Flow Table

Actual Quantities of Inert C&D Materials Generated						Actual Quantities of Non-inert C&D Materials (Construction Waste) Ger				
Month	Total Quantity Generated	Reused in the Contract	Reused in other Projects	Hard Rocks & Large Broken Concrete	Disposed as Public Fill	Metals (see Note 1)	Paper/cardboard packaging (see Note 1)	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse (see Note 3)
	tonne	tonne	tonne	tonne	tonne	kilogram	kilogram	kilogram	Litre	tonne
May 2015	29.58	0.00	0.00	0.00	29.58	0.00	0.00	0.00	0.00	0.00
June 2015	2226.90	0.00	0.00	0.00	2226.90	0.00	0.00	0.00	0.00	9.66
July 2015	2832.27	0.00	0.00	0.00	2832.27	0.00	0.00	0.00	0.00	33.68
August 2015	6657.25	0.00	0.00	0.00	6657.25	0.00	0.00	0.00	0.00	55.06
Total	11746.00	0.00	0.00	0.00	11746.00	0.00	0.00	0.00	0.00	98.40

Notes:

- (1) Metal and paper/cardboard packaging were collected by recycler for recycling.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material collected by recycler for recycling.
- (3) General refuse was disposed of at NENT by subcontractors.

# Annex G

Environmental Complaint, Environmental Summons and Persecution Log

Annex G Cumulative Complaint and Summons/Prosecutions Log

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
May 2015	0	0
June 2015	0	0
July 2015	0	0
August 2015	0	0
Overall Total	0	0