ALBA Integrated Waste Solutions (Hong Kong) Ltd

ALBA Integrated Waste Solutions (Hong Kong) Limited Contract No. EP/ES/69/12

Technical Note for Extension of Boiler Operation Hours at Lot P4 at Eco Park from June 2020 to May 2022

Revision 3

Issue Date: 25th May 2020

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Approved by:

Vincent Cheng for Project Manager



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1. INTRODUCTION

1.1. Background and Purpose

- 1.1.1. EcoPark has been developed in Tuen Mun Area 38 (see *Figure 1.1*) in two phases (Phase 1 and Phase 2) with a total area of around 20 hectares, of which 14 hectares of land can be rented to tenants to carry out recycling and related activities. EcoPark aims to support the local recycling industry by providing long-term land at affordable rents, thereby encouraging investment in advanced technology and value-added recycling processes.
- 1.1.2. EcoPark has been in operation since 2007. Currently, 13 tenants and one operator are carrying out the recycling of waste cooking oil, waste metals, waste wood, Waste Electrical and Electronic Equipment (WEEE), waste plastics, waste batteries, Construction and Demolition (C&D) waste, waste glass, waste rubber tyres, and food waste.
- 1.1.3. EcoPark is a Designated Project (DP) under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) and an Environmental Impact Assessment (EIA) Report together with an Environmental Monitoring and Audit (EM&A) Manual were prepared for EcoPark in 2005. EcoPark is governed under Environmental Permit (EP) No. EP-226/2005/F, which was issued to the Director of Environmental Protection (the Director, or the Permit Holder). Therefore, all recycling facilities in EcoPark are subject to this EcoPark EP.
- 1.1.4. A diesel fuel boiler was installed by the operator at Lot P4 of EcoPark in 2017 to provide process steam for one of the recycling processes being carried out at the premises. In order to increase the handling capacity of the processing line, the operator of the Lot P4 of EcoPark proposed to extend the operation hours of the boiler and associated treatment lines in 2018 from the 0700 hrs to 1900 hrs stated in the EP to 24 hours per day operation, 7 days a week. As stipulated in EP-226/2005/F, Part C, Condition 4.4, a detailed proposal should be submitted for approval by the Director of the Environmental Protection for any chimney emissions outside the 0700 hrs to 1900 hrs period. EPD's approval were given to operate the boiler with night-time emissions (1900 hrs to 0700 hrs) at Lot P4 of EcoPark for the period from 20 September 2018 to 30 June 2019, and the approval was further extended to 31 May 2020. EPD's approval letters are appended to *Appendix A* for reference.



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1.1.5. In order to continue the operation of the boiler at Lot P4 for 24 hours per day between 1 June 2020 and 31 May 2022, this new Technical Note is prepared, which will be submitted under Condition 4.4 of the above EP, and shall be taken into consideration for the approval by the Director.

1.2. Proposed Boiler Installation

- 1.2.1. The location of the Lot P4 of EcoPark and its environs is shown on *Figure 1.1*. The plant has a nominal capacity of 30,000 tonnes/year (i.e. 2,500 tonnes/month). The existing boiler in Lot P4 is located indoors, and its location is shown on *Figure 1.2* with the photograph showing its condition.
- 1.2.2. Specifications of the existing boiler are provided in *Appendix B* and summarised in *Table 1-1*.

Table 1-1 Diesel Fuel Boiler Parameters

Parameter	Description
Manufacturer	CERTUSS Dampfautomaten GmbH, Model Junior 500 SC
Fuel	Ultra-Low Sulphur Diesel (ULSD) ≤0.005% sulphur by weight
Fuel Storage	Underground ULSD Storage Tank to the south of the Lot P4 building
Fuel Consumption	37L/h
Steam Capacity	500kg/h
Existing Operating Hours Approved by EPD	19:00 to 07:00 approved until 31 May 2020
Proposed Operating Hours	19:00 to 07:00 between 1 June 2020 and 31 May 2022

1.2.3. The boiler, shown on *Figure 1.2*, is located outside the "Chimney Restricted Area" as shown on *Figure 1.3*, within which no chimney could be installed as per the approved EIA report. Hence, the existing chimney of the boiler is in compliance with EP Condition 4.3. In addition, the underground storage tank for ULSD with a maximum capacity of 10,000 litres is located around 47m from the EcoPark site boundary and therefore complies with EP Condition 4.9, which prohibits dangerous goods, including diesel, to



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be stored within 10m from the EcoPark boundary. The underground storage tank for ULSD is also located >15m from the nearest adjacent tenant lot and therefore complies with paragraph 10.3.4 of the EIA.

1.2.4. The parameters of fuel combustion are restricted by the approved EIA of EcoPark and those of the existing boiler are summarised in *Table 1-2*, below, and the detailed calculations of the maximum emission rates of different pollutants according to AP-42 of USEPA (i.e. Compilation of Air Pollutant Emission Factors, AP-42, 5th Edition by the United States Environmental Protection Agency (USEPA) are shown in *Appendix C*.

Table 1-2 Parameters Restricted by the Approved EIA and Those of the Existing Boiler in Lot P4 of EcoPark

Physical Parameter	Values Restricted by Approved EIA	Boiler in Lot P4
Stack height (metre above ground)	≥30	13.2
Stack diameter (mm)	≥1,000	. 150
Efflux velocity (m/s)	≥9	7.19
Exit temperature (°C)	≥80	190
Sulphur content (% w/w)	<0.005	<0.005
ULSD (I/hr)	≤7,500	≤37
Pollutant Identified in	Emission	s
the EIA	Limited in EIA (g/s)	Boiler in Lot P4 (g/s) [Note]
PM	0.5000	0.0025
SO2	0.1963	0.0009
NOx	6.0000	0.0296
СО	1.2500	0.0062

Note:

- 1. Boiler emission data is made reference to Supporting Information for Design Audit for Proposed Boiler for WEEE Treatment Facility at EcoPark (October 2017)
- 2. PM (particulate matter) is assumed to be equivalent to TSP Total Suspended Particulates as a conservative approach in terms of emission



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As a conservative approach, respirable Suspended Particulates (RSP) and fine Suspended Particulates (FSP)
are both assumed to = TSP as a Worst-case scenario, with emission factor of TSP = 0.0025g/s

1.3. Fuel Combustion Emission Identified in EIA

- 1.3.1. The exhaust vent and the fuel combustion of the boiler has, by strict interpretation of the EP conditions, deviated to some extent from the base case listed in Table 13.1 of the EIA Report and Annex A of the EP. Nevertheless, a PRC/DA mechanism certified by the EcoPark ET Leader and verified by the EcoPark Independent Environmental Checker (IEC) was carried out to review the exhaust vent of the boiler prior to the trial operation at Lot P4 of EcoPark in October 2017.
- 1.3.2. Owing to the further proposed extension of boiler operation from 0700 hrs to 1900 hrs to 24 hours per day operation, 7 days a week, a further air quality impact assessment was carried out in September 2018 and June 2019, and the relevant results were mentioned in Technical Note 2018 and 2019. The result of the quantitatively air quality assessment revealed that the proposed changes would not cause any adverse impacts to the surrounding environment.

1.4. Review of Environmental Impacts

- 1.4.1. A number of environmental impacts were assessed in the approved EIA Report in 2005 (EIA Register No. AEIAR-086/2005), including air quality impact, noise impact, water quality impact, waste management, land contamination impact, landfill gas hazard assessment, landscape and visual issues and hazard to life assessment. For the continued extension of boiler operation hours during night time (i.e. 1900 hrs to 0700 hrs), air quality is the only concern and this is examined in detail in the remainder of this Technical Note. As the applicable change is for chimney emissions only, it is necessary for its air quality impact to be assessed to meet the following requirements:
 - (a) There has been no material change to the environmental impact of the project with mitigation measures in place as approved under the EIA report; and
 - (b) The project complies with the requirements described in the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM).
- 1.4.2. The boiler at Lot P4 of EcoPark is located indoors in a roofed building sitting on a concrete slab as shown on *Figure 1.2*. There are also no noise sensitive receivers



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identified in proximity. There is no wastewater discharge during the operation of the boiler. Therefore, it could be concluded that the extended operation hours of the boiler would not cause additional adverse impacts in terms of noise pollution, water quality, land contamination, landfill gas and landscape and visual and hazard to life.

- 1.4.3. In order to evaluate the air quality impacts due to the proposed extension operation hours of the existing boiler of Lot P4 of EcoPark, the latest assessment results in the Second Annual AQIA Review Report (the "TMFB AQIA 2020") dated May 2020, prepared for the Civil Engineering and Development Department (CEDD), has been referred to.
- 1.4.4. Other environmental impacts, including noise, water quality, waste management, land contamination, landfill gas hazard, landscape and visual issues and hazard to life will not be affected by the proposed extension of boiler operation hours. Therefore, such impacts are not required to be reviewed in this Technical Note.

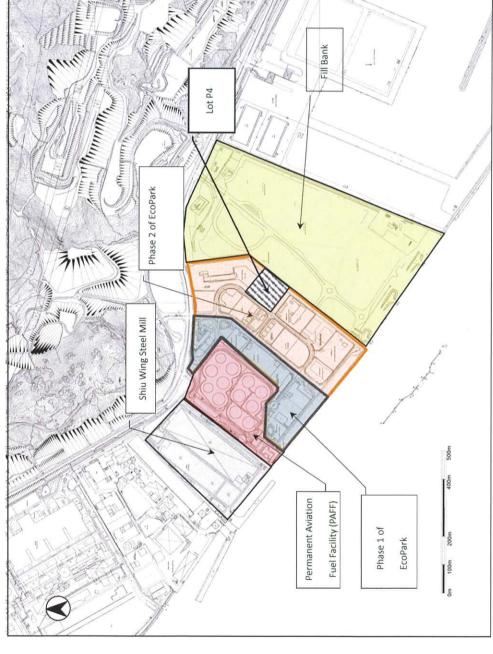




Figure 1.1 Site Location and Its Environs

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Technical Note 2020_v3 (Alba)



Figure 1.2 Location of the Existing Boiler of Lot P4

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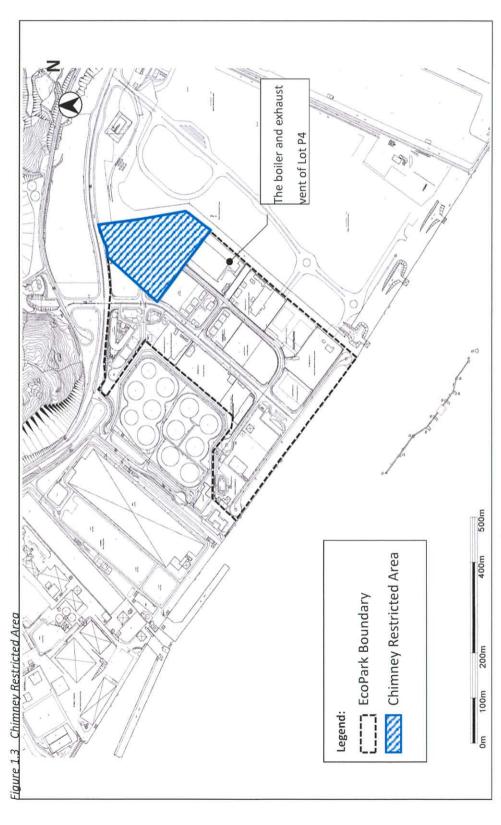
Z The boiler and exhaust vent Lot P4 EcoPark

Technical Note 2020_v3 (Alba)





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Source: Re-provided in accordance with Figure 4 of EP-226/2005/F.

Technical Note 2020_v3 (Alba)

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2. ASSESSMENT CRITERIA

2.1. Environmental Legislation and Standards

Air Pollution Control Ordinance

2.1.1. The Air Pollution Control Ordinance (APCO, Cap. 311) provides the statutory controls of air pollutants from a variety of stationary and mobile sources. It encompasses the Air Quality Objectives (AQOs) for seven air pollutants. The AQOs criteria are shown in *Table 2-1*.

Table 2-1 Hong Kong Air Quality Objectives

Pollutant	Averaging Time	Concentration Limit, µg/m³	No. of Exceedance Allowed
	10-minutes	500	3
Sulphur Dioxide (SO ₂)	24-hour	125	3
Respirable Suspended	24-hour	100	9
Particulates (RSP)(PM10) [Note 2]	Annual	50	Not Applicable
Fine Suspended Particulates	24-hour	75	9
(FSP)(PM2.5) [Note 3]	Annual	35	Not Applicable
	1-hour	200	18
Nitrogen Dioxide (NO ₂)	Annual	40	Not Applicable
Ozone (O ₃)	8-hour	160	9
	1-hour	30,000	0
Carbon Monoxide (CO) [Note 4]	8-hour	10,000	0
Lead (Pb)	Annual	0.5	Not Applicable

Notes:

- All measurements of the concentration of gaseous air pollutants, i.e., sulphur dioxide, nitrogen dioxide, ozone and carbon monoxide, are to be adjusted to a reference temperature of 293 Kelvin and a reference pressure of 101.325 kilopascal.
- 2. RSP means suspended particles in air with a nominal aerodynamic diameter of 10 μm or less.
- 3. FSP means suspended particles in air with a nominal aerodynamic diameter of 2.5 µm or less.



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- 4. The 8-hour mean of CO concentration is calculated based on Item 9 of Schedule 5 of APCO. The maximum daily 8-hour mean concentration of CO in air is selected by examining 8-hour running averages, calculated from CO hourly data and updated each hour, that is:
 - (a) the first calculation period for a day is the period from 5pm on previous day to 1 a.m. on that day.
 - (b) the last calculation period for a day is the period from 4pm to 12 midnight on that day.



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3. AIR QUALITY ASSESSMENT

3.1. Assessment Methodology & Emission Inventory

- 3.1.1. Tuen Mun Fill Bank (TMFB) serves as a temporary stockpiling area for public fill generated from construction works and is one of the Designated Waste Disposal Facilities under the Waste Disposal Ordinance (WDO). In accordance with the requirements in Condition 3.28 of the Environmental Permit (EP-210/2005/C) of the Fill Bank at Tuen Mun Area 38 (TMFB), an Air Quality Impact Assessment (AQIA) review should be carried out annually during the TMFB extended operation from 2019 to 2023. Therefore, reference is made to the latest cumulative pollutants results associated with the extended operation (i.e. 2019 to 2023) of TMFB from June 2020 to May 2021 extracted from the TMFB AQIA 2020.
- 3.1.2. The assumptions made in Sections 3.5 and 3.6 of the TMFB AQIA 2020 for estimating the cumulative air quality impacts arising from the emission sources includes the followings:

Within TMFB:

- Dust emissions from the TMFB operational activities.
- · Vehicular emissions from internal roads within TMFB.
- Emission from marine vessels during berthing and maneuvering for exporting and importing fill materials.

In the Vicinity of TMFB:

- Stack emissions from nearby industrial sites including Green Island Cement (GIC), and Shiu Wing Steel Mill (SWSM).
- Existing emissions from the plants in EcoPark including Lot P4, SSK Metal Ltd., K.Wah Recycled Block Manufacturing Plant and South China Reborn Resources (Zhongshan) Company Ltd.), as well as other planned tenants including a proposed new biomass heating system at Lot T5 within EcoPark as shown on Figure 3.2.
- Vehicular emissions from external roads within 500m Study Area of TMFB.
- Emissions from the existing Construction and Demolition Materials Sorting Facility (C&DMSF) and marine vessels during berthing and maneuvering for material transport at the berth next to C&DMSF.



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- 3.1.3. *Figure 3.1* and *Figure 3.2* show the locations of emission sources associated with TMFB Operation were included in the cumulative air quality assessment, and those in the vicinity of TMFB, respectively as extracted from the TMFB AQIA 2020.
- 3.1.4. The air quality cumulative results assessed from June 2020 to May 2021 in the TMFB AQIA 2020 was considered as the best available information that could make reference to during the time of assessment. The relevant results were extracted and summarised in *Table 3-3*.
- 3.1.5. The air quality impact arising from the extension of operation hours of the boiler at Lot P4 and potential emissions from EcoPark from June 2020 to May 2021 were assessed in the TMFB AQIA 2020. According to Chapter 3 and Annex A2 of the TMFB AQIA 2020 (Appendix C of this technical note), Waste Reduction Group (WRG) of EPD has been consulted with regard to the tenant conditions and potential emissions with EcoPark during the Review Period.
- 3.1.6. For the background air quality, the following are key approaches adopted in the TMFB AQIA 2020:
 - 1. For the assessment of NO₂ impact avoiding double counting of NO_x emissions, the PATH-2016 model in 2019 was re-run to exclude NO_x emissions from road traffic and industrial emissions (i.e. GIC) within the Study Area and marine emissions off the coast of EcoPark and TMFB (Grid 15,38). The rerun hourly average NO₂ concentrations were adopted as the background NO₂ levels.
 - 2. The hourly RSP and SO₂ concentrations in 2019 extracted from the EPD's PATH-2016 model (i.e., unmodified PATH-2016) were adopted as the background levels.
 - In accordance with EPD's Guidelines on Choice of Models and Model Parameters, the 24- hour average RSP background concentrations were adjusted by added with 26.5 μg/m³. Similarly, the annual average RSP background levels were adjusted by added with 15.6 μg/m³.
 - 4. The 24-hour average FSP background concentrations were estimated by multiplying the 24- hour average RSP background concentrations with 0.75 and the annual average FSP background concentrations were estimated by multiplying the annual average RSP background concentrations with 0.71. This approach was referred to EPD's Guidelines on the Estimation of PM2.5 for Air Quality Assessment in Hong Kong.
 - 5. The use of background air pollutant concentrations in 2019 produces conservative



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assessment results as background air pollutant concentrations in 2020 and beyond are lower than those in 2019.

3.1.7. The other modelling assumptions in details can be referred to Section 3.6 of the TMFB AQIA 2020.

3.2. Representative Air Sensitive Receivers

3.2.1. There were totally six existing and/or planned ASRs identified within the 500m Study Area of TMFB. The ASRs being assessed are listed in *Table 3-1*, and the locations of these ASRs are shown on *Figure 3.3*.

Table 3-1 Identified Representative ASRs

ASR ID	Description	Type of Use	Approx. Distance from Site Boundary (m)	Approx. Base Elevation (m)	Height Above Ground (m)
A3	Eco Park Tenant: Lot P4	Industrial	30	5	4.5
A4	Eco Park Tenant: South China	Industrial	25	5	4.5
A5	Eco Park Tenant: Chung Yue	Industrial	20	5	4.5
A9	Eco Park Administration Building	Industrial	255	6	4.5
A10	PAFF Office	Industrial	465	5	4.5
A11	Proposed Modern Logistics Development at Tuen Mun Area 49 [Note1]	Industrial	70	10	10

Note:

 ASR A11 is a planned development that has been approved by the Town Planning Board (TPB) in July 2017, which may be present within the Review Period, i.e. after June 2020. Therefore, it is also assessed as a conservative approach.

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3.3. Evaluation of Impacts

- 3.3.1. With reference to the latest TMFB AQIA 2020 Report, the predicted cumulative TSP, RSP, FSP, SO₂ and NO₂ concentrations at the ASRs would comply with the relevant AQO criteria. Although the Carbon Monoxide (CO) levels were not assessed in the TMFB AQIA 2019 Report, the air quality impact due to CO is relatively minor because of the following reasons:
 - 1) the ambient CO levels measured in Hong Kong are generally very low compared with the AQO criteria in accordance with EPD's air quality monitoring stations. *Table 3-2* shows the highest 1-hour and 8-hour average CO concentrations extracted from the EPD's *Annual Air Quality in Hong Kong Reports* from 2015 to 2019. It indicated that the highest 1-hour and 8-hour average CO concentrations at all air quality monitoring stations are all far below their corresponding AQO limits.

Table 3-2 Highest 1-hour and 8-hour Average Carbon Monoxide Records in Hong Kong from 2015 – 2019

Year ^[Note 1]	Highest 1-hour Average CO (µg/m³)	Highest 8-hour Average CO (µg/m³)
2015	3,410	2,303
2016	3,130	2,339
2017	2,420	2,156
2018	2,610	2,047
2019	2,620	2,309
AQO Limits	30,000	10,000

Note:

- Data were extracted EPD's Air Quality Annual Reports from 2015 2019, source: https://www.aqhi.gov.hk/en/download/air-quality-reportse469.html
- 2) the CO emission from the Lot P4 ULSD boiler would be minimal. Therefore, adverse impact due to CO is not anticipated and CO is not assessed in this Technical Note.
- 3.3.2. The detailed emission inventory within the TMFB, as well as those located at its vicinity including the emissions within EcoPark are summarised in *Appendix C*.
- 3.3.3. The assessment results are summarised in *Table 3-3*, below, which indicated that the cumulative impacts of all pollutants at ASRs between June 2020 and May 2021 are in



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compliance with their corresponding AQO criteria.

3.4. Assessment Results

- 3.4.1. The cumulative air quality assessment has demonstrated that all ASRs within 500m of the project are able to meet the AQOs considering the actual emission inventory in place, thereby meeting the requirements described in the EIAO-TM. The assessment was conducted based on the best available information for the worst-case scenario. In addition, the total emission rates of EcoPark are still within the limits of Annex A of the EP-226/2005/F, i.e. no material change to the environmental impact of EcoPark as assessed in the EIA Report approved under the EIAO.
- 3.4.2. In addition, as advised by Waste Reduction Group (WRG) of EPD, the emission inventories of EcoPark adopted in this cumulative air quality assessment would remain valid up to May 2022. Should the operation condition and emissions associated with TMFB, adjacent industrial emissions outside EcoPark, ASR locations and etc remain unchanged, the current assessment results conducted should also be valid through to May 2022.

3.5. Conclusion

- 3.5.1. All air quality impacts associated with chimney emissions from the existing diesel fuel boiler at Lot P4 due to the proposed extension of operation hours of the boiler have been assessed based on the best available information for the worst-case scenario. As such, the air quality impacts between 1 June 2020 and 31 May 2021 will be within the relevant environmental standards set out in the approved EIA report and the EIAO-TM.
- 3.5.2. As discussed in Section 3.4.2, the emission inventories in EcoPark adopted in this assessment would remain valid to May 2022. Should operation condition and emissions outside of EcoPark remain unchanged, there will be no adverse air quality impact due to the proposed 24 hours per day, seven days per week operation of the existing boiler at Lot P4 between 1 June 2020 and 31 May 2022.



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Table 3-3 Cumulative Impacts of All Pollutants at ASRs Between June 2020 and May 2021

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	Description	Height Above Ground (m)	Annual NO ₂ (µg/ m³)	19th Highest Hourly NO ₂ (µg/m³)	Max 1-hr TSP (µg/m	10 th Highest Daily RSP (µg/m³)	Annual RSP (µg/ m³)	10th Highest Daily FSP (µg/m³)	Annual FSP (µg/ m³)	4th Highest 10-min SO ₂ (µg/m³)	4 th Highest Daily SO ₂ (µg/m³)
шЁ	Eco Park Tenant: Lot P4	4.5	38.03	150.53	368.05	86.72	38.35	65.23	26.85	200.03	37.02
ш⊢ о	Eco Park Tenant: South China	4.5	38.94	146.54	329.18	92.21	42.43	68.23	29.32	228.21	42.53
ш ⊢ О	EcoPark Tenant: Chung Yue	4.5	38.98	146.98	455.50	92.26	42.34	67.21	28.78	246.82	42.10
ш « о	EcoPark Administrati on Building	1.5	37.01	139.27	202.28	84.67	37.62	63.21	26.59	207.08	37.71
ш	PAFF Office	1.5	37.44	137.60	203.58	90.16	40.43	67.34	28.95	208.40	40.52

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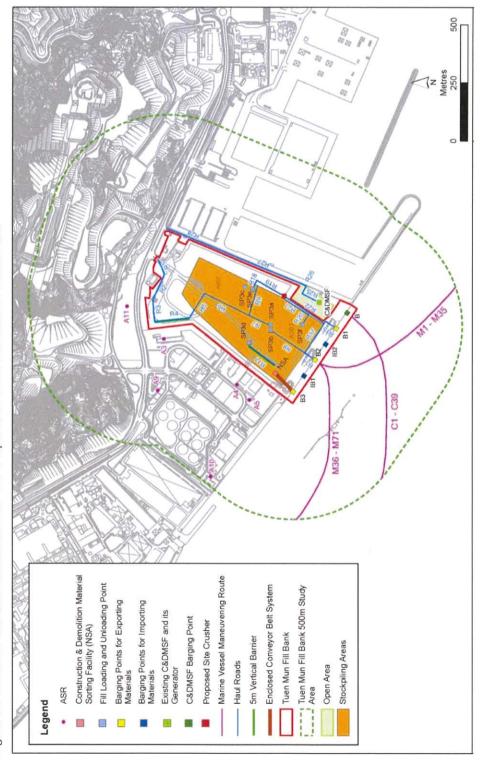
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Figure 3.1 Emission Sources Associated with TMFB Operation in the Cumulative Assessment

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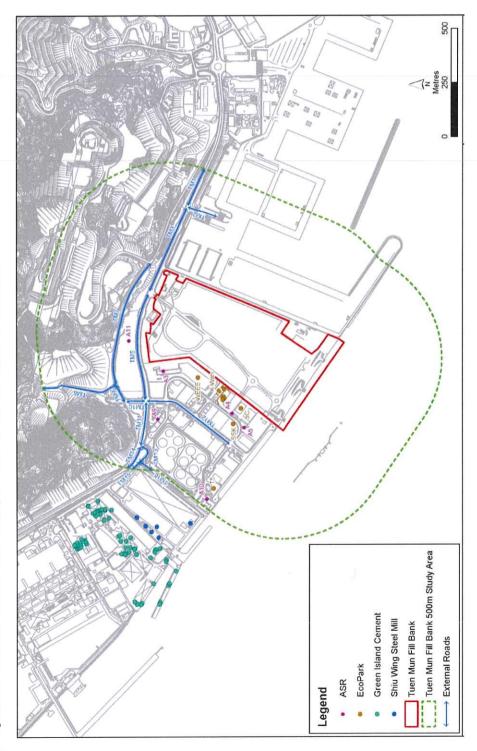


Source: Extracted from TMFB AQIA 2020.



Figure 3.2 Emission Sources in the Vicinity of TMFB in the Cumulative Assessment

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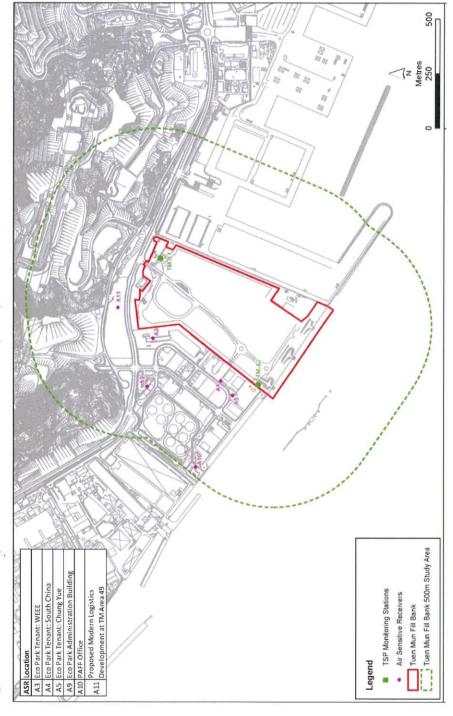


Source: Extracted from TMFB AQIA 2020. Descriptions of T5 and Lot P4 are mentioned in paragraph 3.1.2.



Figure 3.3 Locations of Representative Air Sensitive Receivers (ASRs) of TMFB AQIA 2020

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Source: Extracted from TMFB AQIA 2020.



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4. OVERALL CONCLUSION

- 4.1.1. Pursuant to Condition 4.4 of EP-226/2005/F for EcoPark, this Technical Note has been prepared to address the potential environmental impacts arising from proposed extension of operation hours, from 0700 hrs to 1900 hrs to 24 hours per day 7 days per week, for an existing diesel fueled boiler in Lot P4 from June 2020 to May 2022.
- 4.1.2. After reviewing the environmental impacts, there is no change of environmental impacts with respect to noise, water quality, landfill gas, land contamination, landscape and visual and hazard to life due to the proposed extension of boiler operation hour, and in particular the key impact relating to air quality. For air quality impact, it has been assessed that the cumulative impacts from June 2020 to May 2021 on all ASRs are in compliance of AQO limits based on the best available information for the worst-case scenario. It has been concluded that there will be no unacceptable environmental impacts or material change to the EcoPark project resulting from the proposed extension of boiler operation hours.
- 4.1.3. As discussed in Section 3.4.2, the emission inventories in EcoPark adopted in this assessment would remain valid to May 2022. With operation condition and emissions outside of EcoPark remain unchanged, there is no adverse air quality impact anticipated due to the proposed boiler operation up to May 2022.
- 4.1.4. Therefore, the technical requirements for the proposed 24 hours per day 7 days per week boiler operation between 1 June 2020 and 31 May 2022 have been satisfied, subject to the approval by the Director under EP Condition 4.4 of EP-226/2005/F.
- 4.1.5. In addition, all the relevant requirements as mentioned in the Environmental Monitoring and Audit (EM&A) manual (e.g. Process Review or Design Audit, if applicable) will be followed and complied with by Lot P4 of EcoPark if there are substantial changes that affect the emission inventory.

Appendix A EPD'S APPROVAL LETTER IN 2019

本署檔號

YOUR REF:

Environmental Protection Department

OUR REF: (8) Ax(14) to EP 2/ N4/ G/ 34 Pt.16 來函檔號

() in EP1201/2-61/1

Branch Office

28th Floor, Southorn Centre, 130 Hennessy Road, Wan Chai, Hong Kong.



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HOMEPAGE: http://www.epd.gov.hk

27 June 2019

By Registered Post & Fax: 2872 0389

Director of Environmental Protection Environmental Protection Department 15/F, East Wing, Central Government Offices 2 Tim Mei Avenue Tamar, Hong Kong

(Attn: Mr. Duncan Chan - Senior Environmental Protection (Waste Reduction & Recycling))

Dear Mr. Chan,

Environmental Impact Assessment (EIA) Ordinance, Cap. 499 Project Title: Development of an EcoPark in Tuen Mun Area 38 Environmental Permit No. EP-226/2005/F

Environmental Permit Condition 4.4 - Extension of Chimney Emission Operation between 19:00 and 07:00 hours daily at Lot P4 (1 July 2019 to 31 May 2020)

I refer to the set of technical proposal received on 24 June 2019.

Pursuant to Condition 4.4 of the EP-226/2005/F, the approval for chimney emissions associated with the operation of the Waste Electrical and Electronic Equipment Recycling Plant located at Lot P4 of EcoPark as shown in Figure 6 of Environmental Permit No. EP-226/2005/F between 19:00 to 07:00 hours daily, for the period of 1 July 2019 to 31 May 2020 inclusive is hereby given.

We shall arrange to place the set of technical proposal at the EIAO Register Office for public access.

Yours sincerely,

(Fiona Cheung)

Acting Senior Environmental Protection Officer for Director of Environmental Protection

C.C

(Attn: James WH Wong (AEC))

Fax: 2815 5399

IFC

(Attn: Sam Tsoi (Arup))

Fax: 2268 3950

Internal: S(RW)1



a property	$\hat{\kappa}$
	Appendix B MANUFACTURER'S DETAILS OF PROPOSED BOILER
	Appendix b WANGI ACTORER'S DETAILS OF FROPOSED BOILER





Steam Ger	Also in pro
Steam Generators	Junior 80 - 600 SC

RTUS	Generat
U	Steam
SS	ators

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Steam	Steam generators UNIVERSAL 700 - 1800 SC Seres	o SC Sintis
8215	Steam capacity kg/ft	Method of combustion
2 1	700 - 850	Oil, gas or combination
9	1000-1300	Oil, gas or combination
7	1500 - 1800	Oil, gas or combination
-85	Steam generators ELEKTRO E 6 - 72 M series	A series
Size	steam capacity kg/h	Method of heating
One stre	3-97	Electrical 6 - 72 kW
	Steam generators ELEKTRO E 100 series	series
8215	Steam capacity kg/h	Method of heating
One size	135/160	Electrical 100 / 120 kW



CONTAINER Steam System Completely equipped and mady to operate

Supply unit as complete ready-to-operate boiler housing installation

CERTECON Ethaust gas heat exchangers for Junior

in addition. Ethaust gas heat kechang ECQ SH for Universal



DESALINATION HEAT EXCHANGER Heat recycling from the desalination condensate to heat feed water

Reduction of the amount of cooling water at steam systems with mixing heat exchangers when waste water cooling is required.





CERTUSS Dampfautomaten GmbH & Co. KG • Halerstr. 65 • D-47809 Krefold 161: 449 (0)2151 578-0 • 5x +49 (0)2151 578-102 www.certuss.com • E-Mail. verlauf@certuss.com



with **CERTOMAT** Junior SC



Junior 80 - 600 SC in detail

Junior 80 - 600 SC at a glance

- Extremely high degree of efficiency (with excleus) gas heart exchange up to 89%, achieved through the 3-fold air insulation with simultaneous preheating of combustion air at very low emission losses.
- Short heat-up time. Full steam output a reached after a maximum of 5 minutes.
- immediate cutput adjustment to the respective stream requirements which saves energy and thus costs
- Low-emission burner developed specially to latest European standards for all sizes.

- User friendliness + "Thermotimat" for fully automatic operation"
- Optionally, "CVE" supply unit as complete boiler housing installation of boiler feed pump, steam dryer, water conditioning and waster-water mixing heat exchanger

- Operation and installation
 + Secure installation without foundation at low space
- + Can be installed in work areas, no boiler housing required
- + No permit required for installation and use in Germany

Can optionally be equipped with burness for EL heating oil, natural gav or nigard gas, tested and approved by the TUV-Rhenibard-Berlin (Branderburg in accordance with the latest EL regulators for burness.

Safety and quality

+ Can be remotely programmed and read out or controlled wa
Ethernet, CAN bus, PROFIBUS or GSMUMTS modem*

+ Customer service standby 24 hours a day, 365 days a year

+ Spare parts supply guaranteed for 20 years

The generation of a proven series
The steam generators CERTUSS Junior SC are characterized by
the immediate output adjustment and the simplified operation.

Complete and safe The Junice 20 - 660 S2 series encompasses completely equipped, easily to operate, steam generators with all safety devices for burner technology, pressure and temperature.

CERTOMAT-Display modul with indication of all operation and fault messages in plain text with operator guidance

Advantages of our technology
+ Robust all-steel design with double-shell air cooling without inoulation materials

Function and error messages as well as service instructions through clear text display in many languages

Storage module
The long-term recording of the boiler and operating states that
can be read out per computer via the existing RS 232 interface.

Switch module
Dry ontact for central faust indication to connect a signaling device or for furthing processing by central control starbinology systems (configurate) with the CERTLSS software Konfigurator Basic) extension modules for detailed transmission of penasion and fault messages.

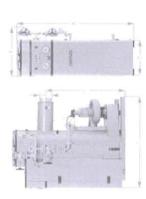
Vertical tension-free central mounting of the heating system with low-point clarifying filtration.

+ Recognized exemplary service

+ Noce and wbration damping, elastic aggregate fastening Are intake from above, trapped heat in boiler house extracted, floor dust remains

+ Flue-gas recycling (NO_x reduction)*

Transmission of operating and fault messages to the CERTUSS serve we phone lines for stronge and system quennes through phone line assigned to the system and automatic transmission of the due date for service intervisi



Automatic desliming and start dewatering
The Junior 80 – 600 SC stawn protections can be equipped
additionally with an automatic desliming and start dewatering
in connection with the "Thermotimat" automatic system.

	Steam connection DN	15	20	23	33		
	Jan Walter W	27/1.1	1,75	174"	1,1%		
	10 8 8	20	92	90	25		
	News St. N. S.	20	32	9	23		
	conscion	1/4"	-11-	.%	3.6 1/4"		
Connections	Bectneal con- nection load EVA	1.75	6.1	20			
(E)	-) JrigloW	320	420	250	950		
	Hue gats (contax)	1050	1120	1360	1460		
	Par garage	180	200	250	250		
	100	200	295	640	700		
2	Daysh	1210	1375	1510	1630		
Dimensions (- mm)	weds o	059	725	808	078 0861		
Dimensi	Neight A	1500	1580	1850			
	事籍	22	5.6	7.1 8.4 9.9 11.3	14.1		
ption	N N E	5.8	10.9	281 218 285 29.1	36.4		
Consumption	Madeing of	4.9	92	153 184 21.5 24.5	30.6		
	Max. permesable cwerpressure MPs (bar)	1,0-1,6-2,5-3.2 (10-1,6-2,5-3.2)	(10-16-25-32)	(10-1,625-32)	(10-16-20-25-32)		
Pressures	Max. operating pressure MPs (tax)	0.8-1.4-2.2-2.9 (6-14-22-29)	(B-14-22-29)	(8-14-22-29)	(6-14-18-22-29)		
	clavel	-	-	-	7		
	Nominal No.	87.00	145	281 282 282 282	384		
	Heating capacity EW	32	131	38 8 9	328		
Capacities	Steam Capacity Lgs ch	8 22	2002	320 93 94	8 88		
	भ्युड	-	7	m	4		

1/4" 40 3/4" Supplementary equipment
 We reserve the right to make technical modifications

1 MP3 (10 bar) = 145 psi 10 psi = 0.069 MP3 (0.69 bar)

Reference values. Natural gas at 10 kW/hm⁻¹. 8500 kcal/km⁻¹ fiquid gas at 25 kkW/hm⁻¹. 22200 kcal/km⁻¹ Massuments and weight as prounded up or of MrSt and bar are valued upgranten values are consistent of the process latest fitnings are distanced Delivery complete with water pump. Output, while stands are related to 100°C files water importante with 1 MrSt (10 bat) skalm overpressure. CERTOSS burnes with heart pump.

1 kw = 3413 BTU 1000 BTU = 0.293 kW

Appendix C EMISSION SUMMARY TABLE

Emission Summary from Boiler of Lot P4 of EcoPark

Emissions from Fuel Combustion in Boiler

		[Note 1]	[Note 2]				[Note 1]	[Note 2]				[Note 1]		[Note 2]				[Note 1]	[Note 2]			
L/hour	%	lb/1000 gallon	kg/1000 L	g/L	g/hour	8/8	lb/1000 gallon	kg/1000 L	g/L	g/hour	g/s	lb/1000 gallon	lb/1000 gallon	kg/1000 L	g/L	g/hour	8/8	lb/1000 gallon	kg/1000 L	g/L	g/hour	5/8
37.00	0.005	2	0.24	0.24	8.88	0.0025	24	2.88	2.88	106.56	0.0296	1425	0.71	0.0852	0.0852	3.1524	0.00088	5	9.0	9.0	22.2	0.0062
Ü	11	ũ	II	n	11	й	и	n	II	II	jī	н	п	u	H	ii	n	11	11	н	П	П
ULSD Consumption Rate	Sulphur Content	Emission factor of PM					Emission factor of NO _x					Emission factor of SO ₂						Emission factor of CO				

Note

1. Emission factor made reference to Table 1.3-1 of AP-42 of USEPA for No. 2 oil fired.
2. Conversion of Ib/1000 gallon by multiplying 0.12 as per AP42

Emission Summary

SO ₂ S) Emission S) Rate (g/s)	0.0009
CO Emission Rate (g/s)	0.0062
FSP Emission Rate (g/s)	0.0025
RSP Emission Rate (g/s)	0.0025
TSP Emission Rate (g/s)	0.0025
NO _x Emission Rate (g/s)	0.0296
ExitVelocity (m/s)	7.19
Gas Flow Rate (m³/hr)	4 2
Stack Exit Height Temperature (mAG) (C)	190
	13.2
Stack Stack Diameter Height (m) (mAG)	0.15
Ground Type of Dimension	Point
Ground	7
>	825350.9
×	810967.2
۵	EP
Operation Hours	24
Pollutants during Operation	RSP, SO ₂ , NO ₂ , CO
Emission Sources	Diesel Fuel Boiler RSP, SO ₂ , NO ₂ , CO
Plant Type	WEEE Treatment Facility
Plant	Lot P4 of EcoPark
No.	п

Emission Inventory for Stack Emission Sources in EcoPark

Chimney	Lot	NOx Emissions	Operation Period	Operation Hours
WEEE Park	Lot P4	0.0296 g/s	1 July 2019 to 31 May 2020	24 hours
WEEE Park	Lot P4	0.0296 g/s	After 31 May 2020	24 hours
South China Reborn Resources (Zhongshan) Co Ltd	Lot P12	0.0078 g/s	June 2020 to May 2021	07:00 to 19:00
SSK Metal Ltd.	Lot 2A-2	0.99 g/s	June 2020 to May 2021	07:00 to 19:00
Proposed Biomass Heating System	Lot T5	2 g/s	May commence within the Review 07:00 to 19:00 Period	07:00 to 19:00

Emission Inventory for Stack Emission Sources in the Vicinity of TMFB

20 mars 1 m and 2	Model							NOx	502	Discharge		Exit					
Sources	Input ID	Х	Y	Elevation	TSP Emission	RSP Emission	FSP Emission	Emission	Emission	Height	Temp	Velocity	Diameter	X-length	Y-length	Angle	Operation Hour
74 75 74 45 74 45 74 75 75 75 75 75 75 75 75 75 75 75 75 75	100			m	g/s or g/m²/s	g/s or g/m'/s	g/s or g/m²/s	1/5	g/s	m	K	m/s	m	m	m	degree	
Green Island Cement	61	910021.8	825547.4	8		0.17944	0.17944			17.2	0	6.5	1.95				24 hours
Green Island Cement	G2 G3	810032.1 810088.4	825542.4 825511.2	0		0.17944	0.17944			17.2	0	6.5 16.8	1.95				24 hours
Green Island Cement	G4	810187.9	825609.7	0		0.02365	0.02369			30	8		1.41.43				24 hours
Green Island Cement Green Island Cement	G5	810142.3	825556.0	0		0.04806	0.04806		Charles and the	32	0	18.1	0.60				24 hours 24 hours
Green Island Cement	G6	810188.5	825602.5	0		0.08694	0.08694	Brown Co.		39.1	0	21.4	0.75				24 hours
Green Island Cement	67	810175.4	825610.7	0		0.01528	0.01529			32.8	0	17.9	0.34				24 hours
Green Island Cement	G8	810193.5	825587.0	0		0.01194	0.01194		No. of Concession,	17.6	0	10.6	0.39	No. of Concession, Name of Street, or other Designation, Name of Street, or other Designation, Name of Street,			24 hours
Green Island Cement	69	810171.7	825752.4	0	CONTRACTOR OF	0.03972	0.03972		DESCRIPTION OF THE PERSON OF T	59.8	343	19.2	0.58				24 hours
Green Island Cement	G18	810168.4	825764.6	0		0.00417	0.00417	-	THE OWNER OF THE OWNER,	17	343	13.6	0.22	Name and	NAME OF TAXABLE PARTY.	ALC: UNK	24 hours
Green Island Cement	G11	810369.3	825839.0	0	The second second	0.01806	0.01806	-		24.5	0	21.9	0.34				24 hours
Green Island Cement	G12	810373.4	825838.0	0		0.02250	0.02250	CHARLE.	Marie San	39.2	0	19.9	0.39	TO THE	COT DOGGE	1	24 hours
Green Island Cement	613	810369.2	825864.0	0		0.01444	0.01444	RIVER	I SECTION.	61.1	0	17.3	0.34	No.		2020	24 hours
Green Island Cement	614	810344.1	825880.2	0		0.05472	0.05472		UNDER SERVICE	61.1	0	20.8	0.60		A STATE OF		24 hours
Green Island Cement	G15	810413.4	825873.1	0		0.14917	0.14917	100	1000	24.5	366	34.3	0.86		Part Name		24 hours
Green Island Cement	G16	810372.9	825862.8	. 0		0.05056	0.05056		THE REAL PROPERTY.	34.4	366	24.0	0.60	-	-	THE PERSON	24 hours
Green Island Cement	G17	810389.9	825914.8	0	FIRST SOIL	0.14917	0.14917			25.5	366	34.3	0.86				24 hours
Green Island Cement	G18	810366.7	825873.4	0	LESSEN, EI	0.04806	0.04806		BALLARS	34.4	366	22.8	0.60			35, DU	24 hours
Green Island Cement	619	810364.4	825877.3	8		0.00611	0.00611			25.5	343	20.6	0.21	William .	PRINCES.	Service Lab	24 hours
Green Island Cement	620	818388.9	825914.2	8		0.14917	0.14917			24.5	366	34.3	0.86			10000	24 hours
Green Island Cement	621	810356,1	825891.6	0		0.04806	0.04805		NOTES.	34.4	366	22.8	0.60	THE CASE	100		24 hours
Green Island Cement	G22	810213.0	825975.3	0	BASSESSE	0.06778	0.06778		I DRUGE	85.7	333	22.7	83.0	ALL SERVICES	16.70		24 hours
Green Island Cement	G23	810220.6	825966.7	ō		0.05033	0.05833		Distance.	85.7	333	19.6	0.68		170 C.	Market N	24 hours
Green Island Cement	G24	810203.8	825973.9	0	2000	0.05833	0.05833			85.7	333	19.6	0.68				24 hours
Green Island Cement	625	810212.5	825950.6	0		0.05833	0.05833			85.7	333	19.6	0.68	II Est	FIGURE PARTY	Market Comment	24 hours
Green Island Cement	G26	910202.5	825971.4	0		0.01944	0.01944		(CONTRACTOR)	85.7	333	18.2	0.41				24 hours
Green Island Cement	627	810232.2	825930.9	0		0.03750	0.03750		DESCRIPTION OF THE PERSON OF T	30.3	333	18.4	0.60				24 hours
Green Island Cement	G28	810216.2	825921.7	0		0.03750	0.03750	NAME OF TAXABLE		30.3	333	18.4	0.60				24 hours
Green Island Cement	G29	810192.2	825962.5	0		0.01944	0.01944	215125	CONTRACT.	13	333	10.3	0.54		MEDICAL PROPERTY.	Harris Ale	24 hours
Green Island Cement	G30	810195.2	825957.4	0		0.01944	0.01944			13	333	10.3	0.54				24 hours
Green Island Cement	G31	810198.3	825951.9	0	BERNATHON.	0.03694	0.03694	Mar. (A)	1000	13	333	19.4	0.54				24 hours
Green Island Cement	G32	810201.2	825947.0	0		0.03694	0.03694	A COLUMN		13	333	19.4	0.54				24 hours
Green Island Cement	633	809940.1	825669.1	0		0.01472	0 01472		the contract of	16.9	333	20.7	0.33		100		24 hours
Green Island Cement	G34	809935.3	825692.2	0		0.03556	0.03556			. 29	333	18.7	0.54		THE REAL PROPERTY.		24 hours
Green Island Cement	G35	810223.6	825926.0	0		0.04528	0.04528	OVER 1997		30.2	333	19.2	0.60		III TIGUE	7 (000)	24 hours
Green Island Cement	G36	810359.9	825885.2 825630.4	0		0.01194	0.01194		ULTUDE L	20	366	11.7	0.42				24 hours
Green Island Cement	G39	810150 8		0		0.01528	0.01528			28.6	0	16.8	0.36				24 hours
Green Island Cement Green Island Cement	640	810244.9	825722.8 825742.9	0		0.01111 0.03861	0.01111			57.6 40.3	343	17.6	0.29	100.00			24 hours
	641	810228.0 810192.1	825701.2	0		0.03061				45.7		19.9	0.56				24 hours
Green Island Cement Green Island Cement	G42 G43	810192.1	825730.0	0		0.04139	0.04139			53.3	343	17.9	0.61				24 hours
Green Island Cement	G44	810198.8	925745.2		The state of the s	0.06472	0.02300			53.8	343	18.1	0.76				24 hours 24 hours
Green Island Cement	G45	810189.3	82570.4.2	0		0.00006	0.00906			35.5	343	19.1	0.76				24 hours
Green Island Cement	G47	810198.0	82572.2.5	8	ALCOHOL: NAME OF TAXABLE PARTY.	0.02778	0.02778			19.5	343	18.0	0.50	Part of the last			24 hours
Green Island Cement	648	810131.3	825558.0	0		0.03583	0.03583		Contract of the	17.4	0	14.4	0.59	10000000	Control of the	-	24 hours
Green Island Cement	G50	810209.0	825977.3	0		0.00472	0.00472			24.7	343	9.3	0.29				24 hours
Green Island Cement	G51	810371.3	825809.0	0		0.13583	0.13583		District Co.	26,4	0	13.0	1.20	Acres and			24 hours
Green Island Cement	G52	910374.8	82583B.8	0		0.03583	0.03583		ALC: No. 12	30.9	0	10.1	0.70	COLUMN TO SERVICE		Section Co.	24 hours
Green Island Cement	G56	810249.8	825775.5	0	THE RESIDENCE	0.08083	0.08083	4 62		72.2	338	5.0	1.60		STOCK STOCK		24 hours
Green Island Cement	657	810324.8	825844.4	0	E-000 000 USS	0.34444	0.34444	BUARRIUGE	DESCRIPTION OF	31.2	561	26.9	1.59		SIGNAL IN		24 hours
Green Island Cement	G58	818254.7	825771.9	8		2.22222	2.22222	111.6667	27.78	113	383	20.6	3.10	California de la Califo			24 hours
Green Island Cement	G60	810228.2	825768.7	0		0.13139	0.13139			113	338	14.0	1.19	(m)200	STATE OF THE PARTY.	Name of Street	24 hours
Green Island Cement	G61	810227.3	825940.6	0	State of the last	0.06139	0.06139		THE RESERVE	32	0	13.3	0.80	the River		THE PARTY	24 hours
Green Island Cement	G62	809945.8	825584.7	9		0.17944	0.17944	NEW COLUMN	Marion	17.2	0	6.5	1.95		teom m-i	COLUMN TO SERVICE STATE OF THE PERSON NAMED IN COLUMN TO SERVICE STATE OF THE PERSON NAMED STATE OF THE SERVICE STATE OF THE PERSON NAMED STATE OF THE SERVICE STATE O	24 hours
Green Island Cement	663	809935.5	825589.8	0		0.17944	0.17944	STATE OF	22	17.2	0	6.5	1.95	Section 2		100	24 hours
Green Island Cement	G66	810374.5	825853.2	0	REAL PROPERTY.	0.03056	0.03056	GIOLES.	2151242	63	0	14.2	0.57	PARTY NAMED IN	CONTROL OF THE PERSON NAMED IN	-	24 hours
Green Island Cement	667	810166.7	825747.9	ô		0.02278	0.02278			27.8	343	12.7	0.60	2 -	Name of the last	100715	24 hours
Green Island Cement	G68	810165.5	825695.2	0	District the last	0.02278	0.02278	Maria Sale		29.8	343	12.7	0.60	Tree and		A	24 hours
Green Island Cement	G69	810332.9	825821.6	0	Werg Street	0.09250	0.09250	(SANE)	ALC: NO	15.5	383	30.3	0.29			Bearing !	24 hours
Green Island Cement	G70	809945.8	825703.8	0	HE WAR	0.05889	0.05889			25.9	333	10.5	0.60		The state of		24 hours
Green Island Cement	G71	889932.9	825674.1	0		0.01222	0.01222	K III		24.2	333	5.3	0.60				24 hours
Green Island Cement	G72	810237.3	825945.6	0		0.03194	0.03194		HIERON.	16.9	333	13.8	0.60		TO LLEVE		24 hours
Green Island Cement	673	810351.9	825859.6	0		0.04389	0.04389	112 25	1000	78.8	363	2.3	1.65		March 3		24 hours
Green Island Cement	675	810029.4	825616.1	0		0.00889	0.00889	100 E	Markey,	2.9	393	39.7	0.23	1000			24 hours
Shiu Wing Steel Mill	SW1	810243.3	825593.1	5		3.4194	3.4194	17.1		50	367	15.2	6.2				24 hours
Shiu Wing Steel Mill	SW 2	810297.4	825653.9	5	BANKETE!	0.7	0.7	0.4556	0.000161	35	325	15.7	2.6	THE REAL PROPERTY.	100	The state of the s	24 hours
Shiu Wing Steel Mill	SW3	810309.5	825446.3	5		0.4639	0.4639	3.717	0.1222	50	813	10.3	1.85		I SOME II	NAME OF	24 hours
Shiu Wing Steel Mill	SW 4	810270.3	825626.3	- 5		0.0088	0.0088	September 1	1000	16	303	10.8	0.339		BOULDS.		24 hours
Shiu Wing Steel Mill	SW 5	810293.4	825601.8	5		0.0047	0.0047			16	303	5.9	0.339		COLUMN TO SERVICE	200	24 hours
Shiu Wing Steel Mill	5W6	918336.7	825697.5	- 5		0.0511	0.0513	0.7194	0.04806	7	753	14.9	0.16		WHI DO		24 hours
EcoPark WEEE (N	WEEE	810983.0	825412.0	5	Contract Con	0.0025	0.0025	0.0296	0.0009	13.2	463	7.19	0.15	Section 2		No. of Concession,	24 hours
EcoPark: South China 81	SC .	810840.0	825219.0	5		0.0001	0 0001	0.9978	0.0013	30	353	9.0	1				0700-1900
EcoPark SSK MI	SSK	810768.0	825253.0	5	THE RESERVE	0.034	0.0255	0.99	0.46	30	353	16.9	1.8		Million O	HALE TH'	9709-1909
EcoPark (Lot T5)	T5	816470.0	825342.0	5		0.42	0.42	2	1.277	30	353	9.0	1	Mary State	The Last		0700-1900
EcoPark_K Wah	KW1	810883.6	825301.2	5	0.0061	0.0061	0.0061	(to 10		18	298	12.2	0.25	40000	Mark Street	-	0700-1900
EcoPark_K Wah	KW2	810890.4	825301.0	5	0.0061	0.0061	0.0061	ENTER!	Des R	18	298	12.2	0.25		RESERVED TO	COLUMN TO SERVICE STATE OF THE PERSON NAMED IN COLUMN TO SERVICE STATE OF THE PERSON NAMED STATE OF THE PERSON NAMED STATE OF THE PERSON NAMED STATE OF THE PERSON NAM	0700-1900
EcoPark_K Wah	KW3	810894.6	825297.3	5	8.0061	0.0061	0.0061	NEWS PROPERTY.	TO SERVICE STATE OF	10	298	12.2	0.25	SCHOOL STREET	SHIPE'S	The Control	0700-1900
EcoPark_K W ah	EW4	810919.8	825269.8	5	4.46E-05	2.16E-05	6.68E-06	71.00	100000	5.5		District.	NAME OF	4.80	25.00	38.10	8700-1900 (100%)1900-0700 (50
EcoPark, K.W.ah	XW5	810976.5	825297.1	5	6.768-06	3.14E-06	1.02E-06			3				2.30	3.60	38.10	0700-1900 (100%)1900-6700 (50
Eco Park_K Wah	KWS	810901.0	825323.0	5	4.73E-05	2.26E-05	6.17E-06	250,510	STREET, STREET,	0	(c) (c)	TO THE	STATE OF THE PARTY OF	4.30	11.30	38.10	0700-1900 (100%)1900-0700 (50
EcoPark_K Wah	KW9	810910.9	825314.7	5	3.50E-05	1.75E-05	5.41E-06	1000	DENIE	0			COLUMN TO	13.00	18.50	38.11	0700-1900 (100%)1900-0700 (50
EcoPark K Wah	EW10_1	810854.0	825319.0	5	4.30E-05	8.04E-06	1.94E-06	100	0(5)	0		RELIEU		3.50	26.30	68.70	0700-1900 (100%)1900-0700 (30
EcoPark_K Wah	KW10_2	810877.9	825325.2	5	4.29E-05	8.04E-06	1.94E-06	Q-2000		9	9000	11990		50.00	3.50	37.80	0700-1900 (109%)1900-0700 (30
EcoPark_K Wah	KW11	810883.6	825295.6	5 '	4.20E-03	4 20E-03	4.20E-03			9.4	298	4.3	0.35		Marie Contract	1000	24 hours
EcoPark_K Wah	KW12	810886.8	825293.1	5	4.20E-03	4.20E-03	4.20E-03	1000000	To be seen	9.4	298	4.3	0.35	200			24 hours
EcoPark_K Wah	KW13	810927.5	825301.0	5	2.52E-04	1.198-04	1.80E-05	A 10 7 10	0.00110200	0		(Jan 1980)	V/EDER	13.30	5.30	38.14	0700-1900 (100%)1900-0700 (50
EcoPark_K Wah	KW14	810933 8	825304.8	5	2.52E-04	1 19E-04	1.806-05			0		BARRIER	73 075	13.30	5.30	38.14	0700-1900 (100%)1900-0700 (50
	KW15	810976.5	825286.5	5	7.27E-04	3.53E-04	1.098-04			3	-	-		3.00	3.00	38.10	0700-1900 (100%)1500-0700 (50
EcoPark_K W ah	V.44.T.5						0.0122			2.5	298	17.3	0.30				

⁽a) Emissions for Green Island Cement and Shiu Wing Steel Mill are referenced from the Approved Additional Gas fixed Generation Units Project (ADLAR 197/2016)
(b) Emissions from WEEE park at EcoPark are referenced from the Supporting Information for Design Audit for Proposed Bollers for WEEE Treatment Facility at EcoPark (October 2017). The stack of WEEE park was assumed to operate 24 hours in the assessment.

⁽c) Emissions for South China at EcoPark are referenced from the relevant Environmental Permit (EP-226/2005/F).

⁽d) Emissions for SSK at EcoPark is referenced from the Air Pollution Control Plan of its Specified Process Licence (L-17-004(1)).

⁽e) Emissions for it. With an EcoPavir, is referenced from the Air Pollution Control Plan of it. Specified Process Licence (i. 3-24(2)).
(f) The Ecopavir emission assumptions are based on a valiable information up to May 2011. It has been assumed in this assessment that the relevant emissions would be the same in the latter part of 2011 (i. e. June to Dec 2021) for the assessment of annual impacts. The emission information and the air quality assessment will be reviewed on an yearly internal (next review by 1. June 2021).