EXECUTIVE SUMMARY

01 Introduction

Project Title

Proposed Waste Recovery Facility On Lot 2017, Jalan PBR 14, Kawasan Perindustrian Bukit Rambai, Peringkat IV A, Mukim Tanjong Minyak, Daerah Melaka Tengah, Melaka

Project Proponent

Seraphim Renewable Sdn. Bhd.
No. 14 & 16, Jalan PK 11,
Krubong Indsutrial Park,
75250 Melaka
Telephone No.: 06-3345336/06-3344589
Facsimile No.: 06-3359854
Contact Person: Datuk Ir. Dr. Joseph WL Heng/
Ms. Valarie Heng Mei Wah

Qualified Person

Ir. Dr. Lee Aik Heng
(ID No. CEP-C0388)

Raja Rokiah R. Saigon
(ID No. CEP-C0381)

Linda Geh Guat Yeow
(ID No. CEP-CS0382)

Lim Sze Fook
(ID No. CEP-CS0126)

Dr. Azfizan Bin Aziz
(ID No. CEP-SS0580)

Prof Dr. Mazrura Sahani
(ID No. CEP-SS0516)

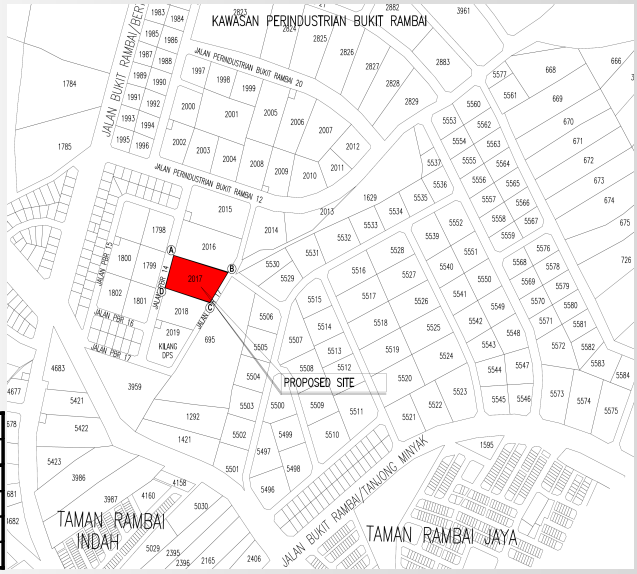
Legislative Requirement

- Prescribed activity under the First Schedule, Activity 14(a)(i): Scheduled Waste - Construction of Recovery Plant (offsite), EIA Order (Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015)
- EIA study required and its report approved under Section 34A Environmental Quality Act 1974 by the DOE prior to the implementation of the Proposed Project

Statement Of Need

- Aims to provide services to cater for the recovery of material from scheduled wastes due to the high generation by various sectors as the country continue to grow towards an industrialized nation.

02 Location



ID	Georeferences	
	Latitude	Longitude
A	N 02° 16' 5.50"	E 102° 10' 45.85"
B	N 02° 16' 4.21"	E 102° 10' 50.13"
C	N 02° 16' 2.08"	E 102° 10' 48.72"
D	N 02° 16' 3.16"	E 102° 10' 45.15"

03 Sensitive Receptors

04 Project Description

Location

Lot 2017, Jalan PBR 14, Kawasan Perindustrian Bukit Rambai, Peringkat IV A, Mukim Tanjong Minyak, Daerah Melaka Tengah, Melaka

Area Of Industrial Site

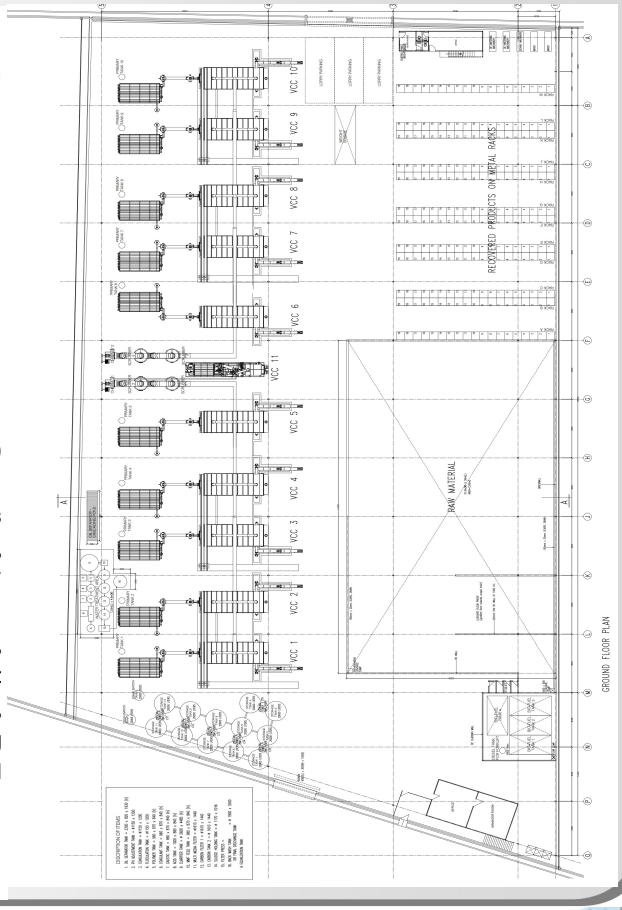
2.04 acres

Type Of Project

Waste Recovery Facility

Handling Capacity

Scheduled wastes handling capacity of 7,570 tpm (ton per month) with waste codes comprising of sludge & granular series involving waste codes SW 104, SW 105, SW 108, SW 202, SW 204, SW 304, SW 321, SW 325, SW 405, SW 408, SW 411 and SW 427, oil series involving waste codes SW 308, SW 311, SW 312, SW 313 and SW 314, chemical ink and paint series involving waste codes SW 303, SW 416, SW 417 and SW 418, general series involving waste codes SW 409 and SW 410 and mixed series with high content of heavy metals comprising of SW 422.



05 Project Activities

Pre-Modification Stage
- Environmental Monitoring
- Environmental Impact Assessment
- Engineering Design and Specifications

Modification & Installation Stage
- Mobilization
- Employment
- Installation of Equipment/Tanks
- Commission and Testing
- Environmental Management

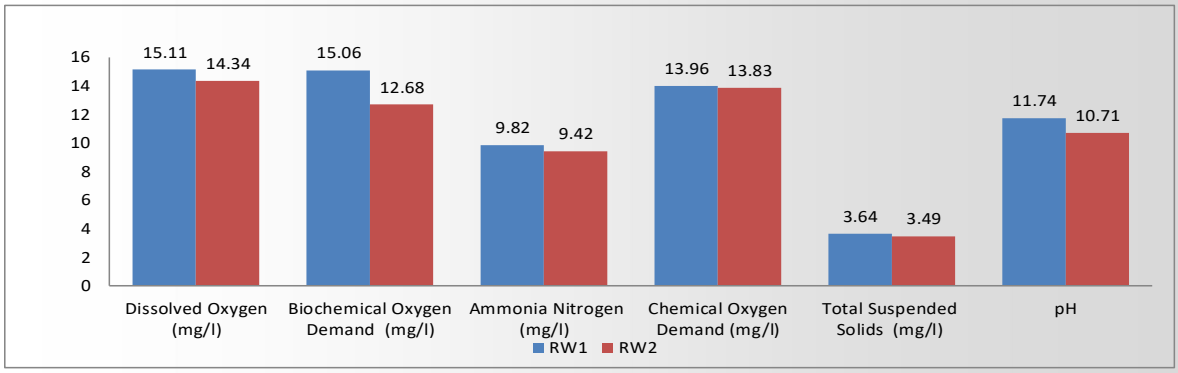
Occupation Stage
- Plant Operation
- Pollution Control
- Residual Waste
- Maintenance & Inspection

06 Existing Environment

Existing Environment

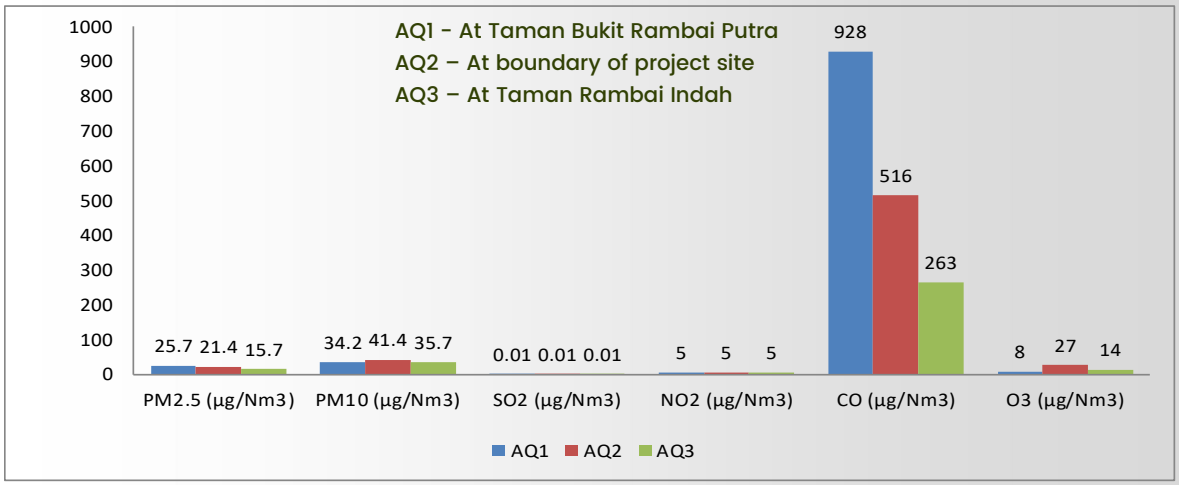
Water Quality Index For Various Parameter

RW1 - At 50 m upstream of point of discharge into Sg. Ayer Salak
RW2 - At 50 m downstream of point of discharge into Sg. Ayer Salak



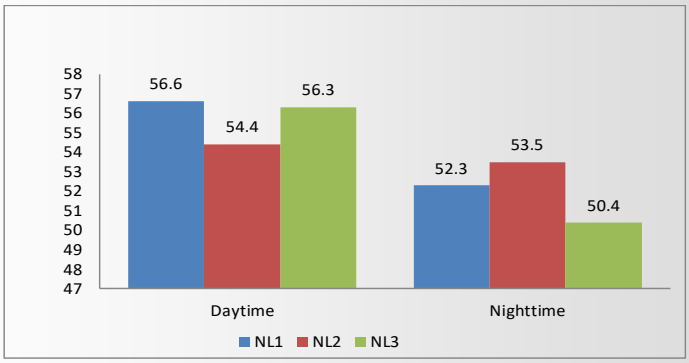
Ambient Air Quality

AQ1 - At Taman Bukit Rambai Putra
AQ2 – At boundary of project site
AQ3 – At Taman Rambai Indah



Noise Level

NL1 - At Taman Bukit Rambai Putra
NL2 – At boundary of project site
NL3 – At Taman Rambai Indah



08 Impact And Mitigation Measures

During Modification And Installation Stage

Impacts	Mitigation Measures
• Nuisance from modification works; • Safety due to modification works; and • Generation of wastes.	• Environmental Management Plan to be approved by the DOE; • Written notifications for the additional fuel burning equipment, air pollution control system and chimneys and industrial effluent treatment plant; • Monitoring programs which includes both point sampling and ambient sampling throughout the operations of the Proposed Recovery Facility; and • Emergency Response Plan taking into consideration the processes and wastes stored and handled at site.

During Operation

Impacts	Mitigation Measures
• Impacts on air quality due to the emissions from the recovery process; • Impacts due to the generation of additional wastewaters; • Impacts due to generation of wastes from the Proposed Expansion; and • Impacts on human health and safety such as safety risks due operation.	• Gaseous emissions will be channeled to the APCS prior to releasing through stacks of adequate height; • Industrial effluent will be treated in the IETS; • Hazards of operating the Proposed Expansion is medium level and confined to the normal operations of any industrial activity operating in the area; and • Residual scheduled wastes generated from the site will be disposed at the DOE's licensed facility.

09

Environmental Monitoring

Proposed Performance Monitoring At Modification Stage

Drainage	50 mg/l for TSS <250 NTU for turbidity
Dust	Ambient air quality guidelines
Erosion	50 mg/l for TSS <250 NTU for turbidity
Air quality	Ambient air quality guidelines
Noise control	Daytime : 75 dB L_{Aeq} Nighttime : 75 dB L_{Aeq}
Spills	Environmental Quality (Scheduled Wastes) Regulations 2005
Litter on and off-site	Local Government Act

Proposed Compliance Monitoring Program At Modification Stage

Air Quality	PM_{10} - 100 µg/Nm^3 $PM_{2.5}$ - 35 µg/Nm^3
Noise	Daytime: 75 dB L_{Aeq} Nighttime: 75 dB L_{Aeq}
Water Quality	Baseline and NWQS

Proposed Impact Monitoring Program At Modification Stage

Air Quality	PM_{10} - 100 µg/Nm^3 $PM_{2.5}$ - 35 µg/Nm^3
Noise	Daytime: 75 dB L_{Aeq} Nighttime: 75 dB L_{Aeq}
Water Quality	National Water Quality Standards

Proposed Performance Monitoring At Operation Stage

All Equipment	As per catalog
IETS	As per written notification
APCS	As per written notification

Proposed Compliance Monitoring Program At Operation Stage

Discharges from IETS	Std B, Environmental Quality (Industrial Effluent) Regulations 2009
Stack Emission	Environmental Quality (Clean Air) Regulations 2014
Noise	Daytime <75 dB L_{Aeq} Nighttime <75 dB L_{Aeq}
Scheduled Waste (Routine)	Environmental Quality (Scheduled Waste) Regulation 2005

Proposed Impact Monitoring Program At Operation Stage

Ambient Air Quality	$PM_{2.5}$ -35 µg/m^3 PM_{10} -100 µg/Nm^3 NO_2 – 280 µg/Nm^3 SO_2 – 250 µg/Nm^3 CO – 30 mg/Nm^3 O_3 – 180 µg/Nm^3
Noise	Daytime <75 dB L_{Aeq} Nighttime <75 dB L_{Aeq}