EIA FOR THE PROPOSED SCHEDULED WASTE & SOLID WASTE RECOVERY PLANT ON LOT 7090, LORONG PERINDUSTRIAN BUKIT MINYAK 16, KAWASAN PERINDUSTRIAN BUKIT MINYAK, SEBERANG PERAI TENGAH, PULAU PINANG

EIA Prescribed Activity 14a(i) Waste Treatment and Disposal – Scheduled Waste: Construction of Recovery Plant (Off-Site)
EIA Prescribed Activity 14(b)(ii): Waste Treatment and Disposal – Solid Waste: Construction of Recovery Plant or Recycling Plan

Project proponent: Jie Yu Metal Sdn Bhd.
EIA consultant: Greenwich Environment Sdn Bhd.
EIA team member: Hung Yee Hon (CEP-C0092), Nikki Wong Foong Mei (CEP-C0020)

Project Concept & Justification

Recovery of scheduled wastes and solid waste with total capacity of 959 MT/mth and 1,110 MT/mth respectively within Kawasan Perindustrian Bukit Minyak. The recovered products include recovered precious metals, cleaned containers and cleaned rags / bags.

Existing industrial lot on (Lot 7090) with factory building (1.5026ha).

The nearest sensitive receptor: Tmn Seri Juru (670m).

Condo Lembah Indah (1.4km).

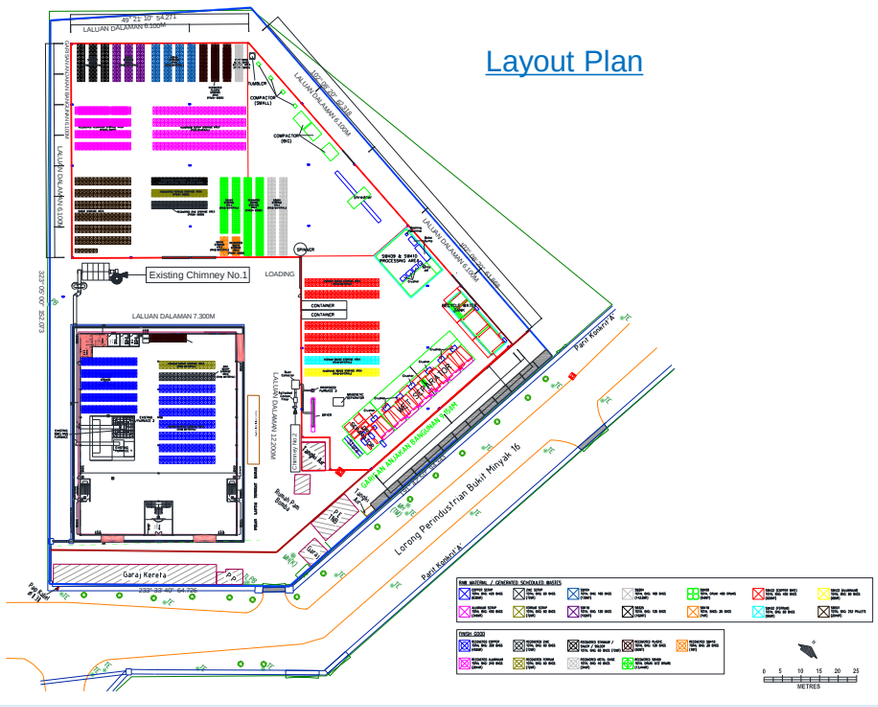
Statement of Need

Provide recovery of wastes in an efficient and environmental friendly manner	Assist in waste reuse and minimization	Enable and promote of waste reuse in the region	Support to the Government's recycling and reuse campaign	Enable the enhancement of spin off business

PROJECT DESCRIPTION

Waste Sources: local industries
Waste Acceptance Criteria:

Descritpion	Waste Acceptance Criteria
Metal Scrap	Metal scrap with <20% impurities and not contaminated by oil, solvent or other chemicals on the surface.
SW104	Dross contain copper, silver, aluminium, stannum and zinc. Copper dross will contain 10-30% copper. Silver dross will contain 5-20% silver. Aluminium dross will contain 10-35% aluminium. Stannum dross will contain 30-90% stannum. Zinc dross contain 10-30% zinc
SW110	All type of PCB, Motherboard, and Processor that contain >17% copper & other metals.
SW204	Sludge that contain >40% copper oxide or nickel oxide.
SW325	Solder epoxy paste that contain silver, zinc and gold with <4% impurities.
SW409	Used container i.e. metal drums or plastic container contaminated with oil, coolant, acid or alkaline.
SW410	Used rags or bags contaminated with oil, coolant, acid or alkaline.
SW422	Off cut materials (I.e. aluminium, copper and ferrum) from factories contaminated with <2% coolant and/or oil.
SW422	Copper wire with insulator that free from contaminants such as oil, solvent or other chemicals on the surface.



Layout Plan

Process Description

- Metal scrap – smelting or polishing or compacting.
- SW104 – magnetic separation & smelting.
- SW110 – tumbler, crushing, wet separation & smelting.
- SW204 – drying & smelting.
- SW325 – heating
- SW409 – water spraying & purging
- SW410 – water spraying, purging & washing
- SW422 – spinning for oil / coolant removal & smelting

EXISTING ENVIRONMENT

Land use – industrial within 500m radius. The nearest receptor is Tmn Seri Juru (670m northwest of project site).

Drainage System

Drainage system within Industrial Estate → Parit Tok Subuh → Sg Junjung → Sg Jawi → Straits of Penang

No downstream water intake point

BASELINE STUDY

Component	Parameter
Drainage Water Quality	Full parameters of Standard B
Ambient Air Quality	PM10, PM2.5, NO_2, SO_2, HCl, Cl_2, H_2SO_4 and HNO_3
Ambient Noise Level	L_{eq}, L_{90}, L_{10}, L_{max}, L_{min}

RESULTS

Drainage Water Quality: W1 & W2 categorized as 'slightly polluted' and W3 categorized as 'polluted'.

Air Quality: Parameters of PM10, PM2.5, NO_2, SO_2 were below the reference limit of the Malaysian Recommended Air Quality Guidelines. Hydrogen chloride was ranged from 1.67 to 2.83 mg/m^3 while chlorine gas, sulfuric acid and nitric acid were below their respective detection limits.

Noise level: The average noise level (L_{eq}) recorded was below the permissible sound level for all stations.

IMPACT EVALUATION

Impacts during Construction: Insignificant impact involving machinery installation only in short period.

Impacts during Operations:

Potential Impact	Project Activities and Sources of Pollution	Impact Magnitude
Air Quality	• Emission from recovery process	Minor
Water Quality	• Accidental spillage.	Minor
Noise Pollution	• Plant operational noise. • Vehicular movement.	Minor
Scheduled Waste	• Residues generated from recovery process	Minor
Socio-economic	• Disturbance to surrounding receptors	Minor
Hazard & Risk	• Furnace operations	Minor

ENVIRONMENTAL MANAGEMENT PLAN

Awareness and training

Budget

Audit by 3rd party auditor

Monitoring during Operational Phase

Performance Monitoring
Dust Collector
Cyclone

Compliance Monitoring
Stack Emission

Impact Monitoring
Ambient Air
Ambient Noise
Surface Water