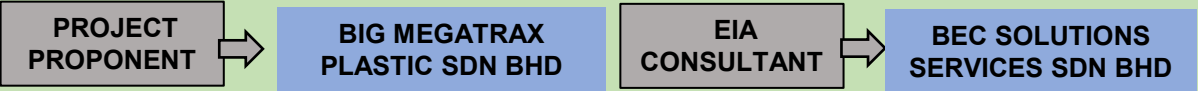


THE PROPOSED PLASTIC AND TYRE SCRAP RECYCLING FACILITY ON LOT 20B (PT12186), KAWASAN PERINDUSTRIAN BENTONG, 28700 BENTONG, PAHANG DARUL MAKMUR

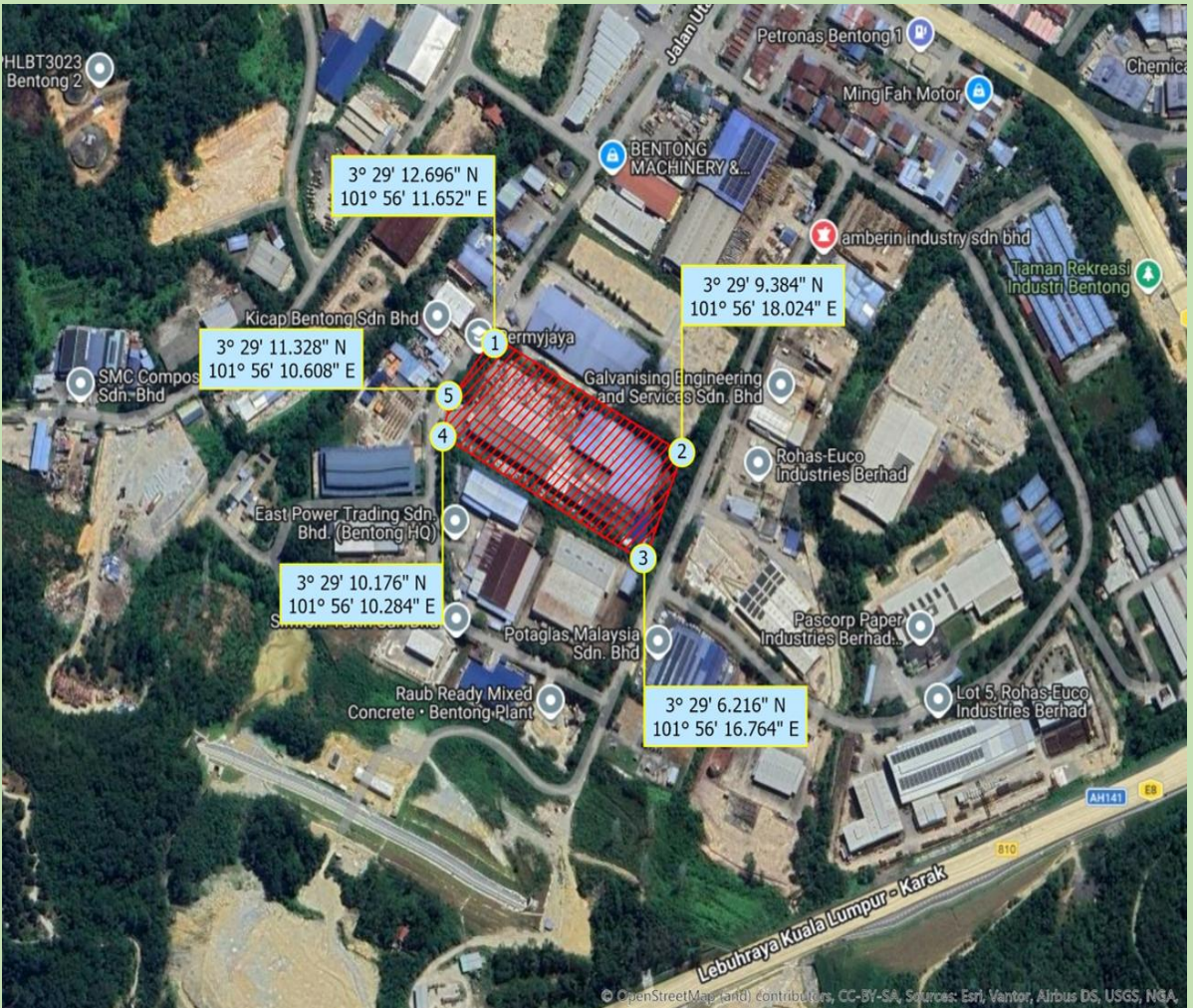


LEGAL REQUIREMENT

Falls under First Schedule of Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015. Activity 14(b) ii. Solid Waste: Construction of recovery plant or recycling plant.

PROJECT DESCRIPTION

- ❖ The proposed project will employ a pyrolysis process to recycle waste tyres and plastic materials, including **polyethylene (PE)**, **polypropylene (PP)**, **polystyrene (PS)**, **acrylonitrile butadiene styrene (ABS)**, **polyethylene terephthalate (PET)**, **low-density polyethylene (LDPE)** and **high-density polyethylene (HDPE)** into liquid hydrocarbon oils.
- ❖ The facility will have a processing capacity of approximately 2,000 metric tonnes per month.
- ❖ The pyrolysis process is not expected to generate any effluent. The facility will be equipped with an Air Pollution Control System (APCS). The emission from the thermal process will be treated through the APCS, comprising components such as a spray tower, packed scrubber, and bag filter.
- ❖ The project site is situated within Blok Perancangan BP 1: Bentong, Blok Perancangan Kecil (BPK) 1.1B Ketari – Benus, which has been gazzeted under industrial area of Taman Perindustrian Bentong. The nearest residential receptor is Taman Chegar Medang, located approximately 800m from the project site.



ENVIRONMENTAL BASELINE DATA

AIR QUALITY		
Parameter	A1	A2
PM ₁₀	14	14
PM _{2.5}	28	28
NO ₂	19	12
SO ₂	41	25
CO (mg/m ³)	2	1
Ozone	3	1

NOISE LEVEL		
LAeq	Day Time, dBA	Night Time, dBA
N1	51.4	39.5
N2	45.6	37.3

WATER QUALITY INDEX		
STATION	WQI	STATUS
WQ1	48.37	Polluted
WQ2	55.37	Polluted
WQ3	56.22	Polluted
WQ4	52.34	Polluted

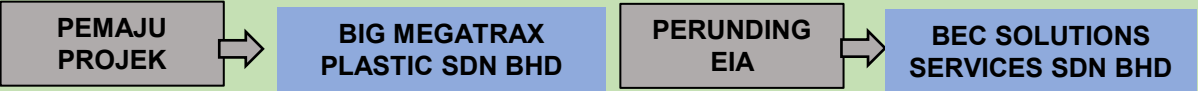
ENVIRONMENTAL MONITORING PROGRAMME

COMPONENT	DESCRIPTION	FREQUENCY	PARAMETER
Operation Phase			
Noise Level	N1: Project Site	Quarterly	LAeq, Lmax, Lmin, L10 and L90
	N2: Kg Chegar Medang		
Air Quality	A1: Project Site	Monthly	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , CO, and O3
	A2: Kg Chegar Medang		
Water Quality	W1: Drainage (upstream)	Monthly	pH, Temperature, DO, COD, BOD5, TSS, NH3-N, Oil & Grease, Turbidity
	W2: Drainage (downstream)		
	W3: Sg Tersun (upstream)		
	W4: Sg Tersun (downstream)		
Stack Emission Monitoring (APCS)	Sampling port of Chimney	Semi-Annually	Particulate Matter Sox, Nox

IMPACT & MITIGATION

SIGNIFICANT IMPACTS	MITIGATION MEASURES
Spillage	•Good Housekeeping. •Emergency Response Plan for Spillage. •Daily Inspection of plant condition.
Waste Generation General waste Scheduled waste	•Provide garbage bins •Online eSWIS for scheduled wastes. •Proper handling and storage.
Emission of Gaseous	•Stack monitoring. •Regular maintenance of the APCS.
Noise Pollution	•Use proper personal protection equipment (PPE) on site with ear plug. •Regularly servicing and maintaining vehicles and machineries.
Project Abandonment	•Preparing Project Abandonment Plan. •Initiate environmental control measures. •Inspection by Authority.

THE PROPOSED PLASTIC AND TYRE SCRAP RECYCLING FACILITY ON LOT 20B (PT12186), KAWASAN PERINDUSTRIAN BENTONG, 28700 BENTONG, PAHANG DARUL MAKMUR

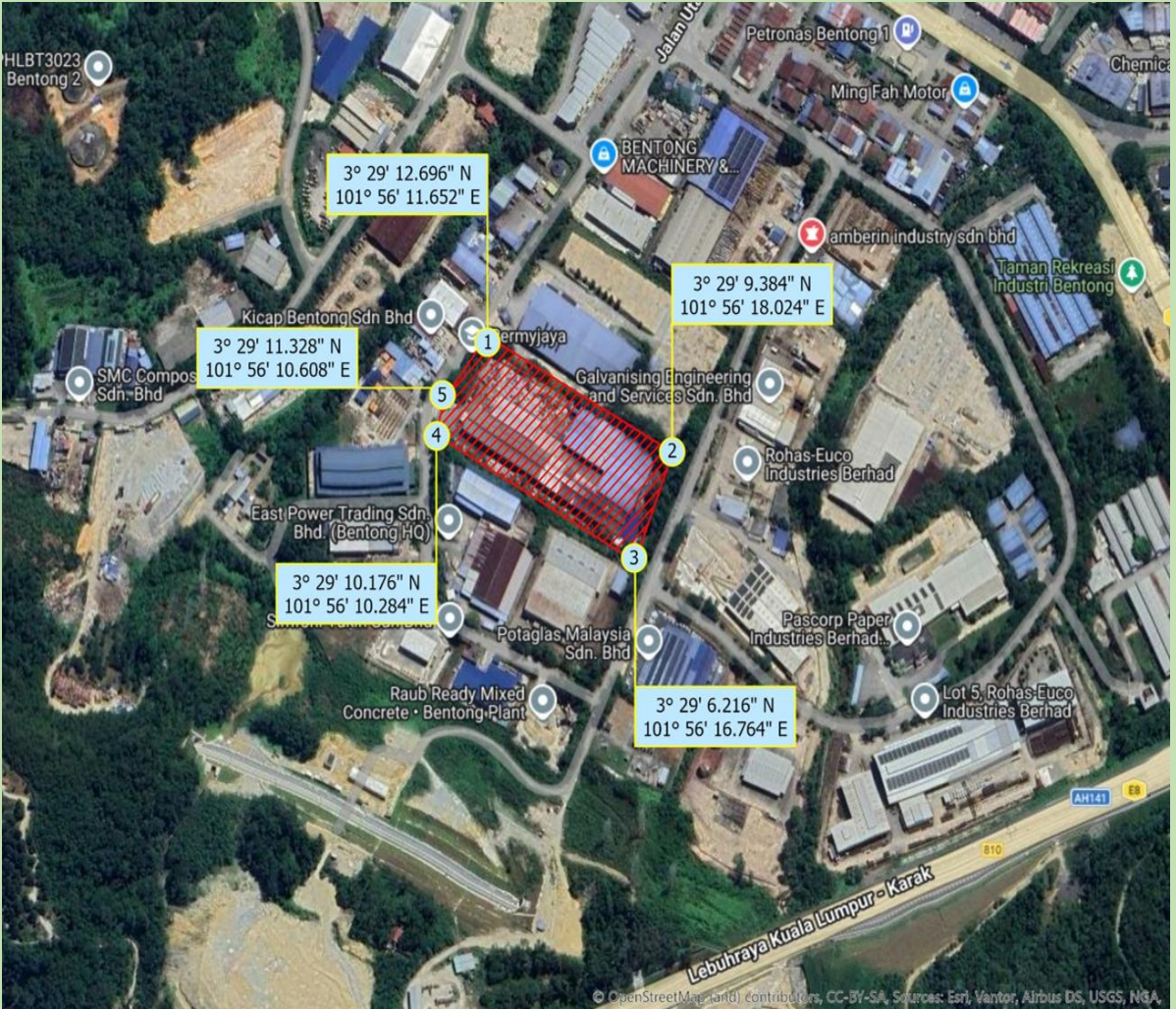


KEPERLUAN PERUNDANGAN

Tertakluk kepada Perintah Kualiti Alam Sekeliling (Aktiviti yang Ditetapkan) (Penilaian Kesan Kepada Alam Sekeliling) 2015 bagi Jadual Pertama. Aktiviti 14(b) ii. Sisa Pepejal: Pembinaan loji pulih guna atau loji kitar semula.

KETERANGAN PROJEK

- ❖ Projek yang dicadangkan ini akan menggunakan proses pirolisis untuk mengitar semula tayar terpakai dan sisa plastik, termasuk polietilena (PE), polipropilena (PP), polistirena (PS), akrilonitril butadiena stirena (ABS), polietilena tereftalat (PET), polietilena berketumpatan rendah (LDPE) dan polietilena berketumpatan tinggi (HDPE) kepada minyak hidrokarbon.
- ❖ Kapasiti pemprosesan bagi kilang ini adalah 2000 tan metrik sebulan.
- ❖ Tiada efluen yang akan terhasil daripada proses pirolisis ini. Kilang ini juga akan dilengkapi dengan Sistem Kawalan Pencemaran Udara (SKPU). Pelepasan udara yang terhasil daripada proses pirolisis akan dirawat melalui SKPU yang terdiri daripada komponen spray tower, packed scrubber dan bag filter.
- ❖ Tapak projek terletak di dalam Blok Perancangan BP 1: Bentong, Blok Perancangan Kecil (BPK) 1.1B Ketari–Benus, yang telah diwartakan sebagai kawasan perindustrian di Taman Perindustrian Bentong. Kawasan penempatan terdekat ialah Taman Chegar Medang yang terletak kira-kira 800 m dari tapak projek.



KOMPONEN ALAM SEKITAR

KUALITI UDARA		
Parameter	A1	A2
PM ₁₀	14	14
PM _{2.5}	28	28
NO ₂	19	12
SO ₂	41	25
CO (mg/m ³)	2	1
Ozone	3	1

BUNYI BISING		
LAeq	Waktu Siang, dBA	Waktu Malam, dBA
N1	51.4	39.5
N2	45.6	37.3

INDEKS KUALITI AIR		
STESEN	WQI	STATUS
WQ1	48.37	Tercemar
WQ2	55.37	Tercemar
WQ3	56.22	Tercemar
WQ4	52.34	Tercemar

PROGRAM PEMANTAUAN

KOMPONEN	KETERANGAN	FREKUENSI	PARAMETER
Fasa Operasi			
Bunyi Bising	N1: Project Site	Setiap 3 bulan	LAeq, Lmax, Lmin, L10 and L90
	N2: Kg Chegar Medang		
Kualiti Udara	A1: Project Site	Setiap bulan	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , CO, and O3
	A2: Kg Chegar Medang		
Kualiti Air	W1: Drainage (upstream)	Setiap bulan	pH, Temperature, DO, COD, BOD5, TSS, NH3-N, Oil & Grease, Turbidity
	W2: Drainage (downstream)		
	W3: Sg Tersun (upstream)		
	W4: Sg Tersun (downstream)		
Pemantauan Cerobong Pelepasan (APCS)	Sampling port of Chimney	Setiap 6 bulan	Particulate Matter Sox, Nox

IMPAK DAN MITIGASI

IMPAK	MITIGASI
Tumpahan	•Penyelenggaraan bangunan. •Pelan Tindakan Kecemasan. •Pemeriksaan harian kilang.
Sisa buangan Sisa Pepejal Buangan Terjadual	•Menyediakan tong sampah. •Pemaju hendaklah mengisi ESWIS untuk buangan terjadual. •Kawasan penyimpanan yang teratur.
Pencemaran udara	•Pemantauan cerobong pelepasan •Penyelenggaraan APCS.
Gangguan bunyi bising	•Menyediakan peralatan perlindungan diri (PPE) untuk pekerja. •Penyelenggaraan mesin dan kenderaan.
Penutupan Projek	•Menyediakan pelan penutupan. •Pelan baikpulih alam sekitar. •Pemantauan badan berkuasa.