



RINGKASAN EKSEKUTIF

KenEp Consultancy & Services

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“Proposed Off-site Scheduled Wastes Recovery Facility on PT 28413 (Part of Lot 332575) With an Area of 1.1764 Hectares (2.9069 Acres) at Tungzen Industrial Park in Mukim Sungai Raya, District of Kinta, Perak Darul Ridzuan”

PENGERAK PROJEK

MM Century Sdn. Bhd.
No. Syarikat : 201101002965
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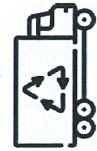
KEPERLUAN PERUNDANGAN

Kualiti Alam Sekeliling (Aktiviti yang Ditetapkan)
(Penilaian Kesan Kepada Alam Sekelling) 2015

KENYATAAN KEPERLUAN



Sumber
- Bahan Buangan
Terjadual



Produk
- Recovered products



Pengurusan Bahan Buangan
Terjadual
- Kemudahan pulih guna and
penstoran

Jadual Pertama

- Aktiviti Ditetapkan 14: Pengolahan Dan Pelupusan Buangan
(a) Buangan Terjadual:
(i)Pembinaan loji pulih guna (luar tapak)
(iii) Pembinaan kemudahan penstoran (luar tapak)

LOKASI PROJEK



PT 28413 (sebahagian daripada Lot 332575) dengan keluasan 1.1764 hektar (2.9069 ekar) di Taman Perindustrian Tungzen di Mukim Sungai Raya, Daerah Kinta, Perak Darul Ridzuan.



Tapak Projek yang dicadangkan boleh diakses dari Jalan Gopeng melalui Persiaran Perindustrian Tungzen 45, diikuti dengan kira-kira 700 m di sepanjang jalan akses perindustrian sedia ada.



PROJECT DESCRIPTION

Bagi tujuan pemulihan, buangan terjadual yang dikumpulkan akan dikategorikan kepada proses-proses berikut:

- Buangan Terjadual Jenis Logam
 - Buangan Terjadual Jenis Pepejal
 - Buangan Terjadual Jenis Cecair (Berasaskan Minyak)
 - Buangan Terjadual Jenis Cecair (Berasaskan Pelarut
- Summary of Scheduled Waste Quantity:

Phase 1:

(a) SW110 – 700 TPM

Phase 2:

(b) Metal Type Scheduled Waste – 1,080 TPM

(c) Solid Type Scheduled Waste – 610 TPM

(d) Liquid Type (Oil-Based) Scheduled Waste – 150 TPM

(e) Liquid Type (Solvent-Based) Scheduled Waste – 25 TPM

Waste Code	Waste Description	Waste Acceptance Criteria	Quantity (TPM)	Potential Waste Generator
SW 110 (E-waste & solar panel)	Waste from electrical and electronic components such as switches, capacitors, and other activated glass or polychlorinated biphenyl containing with lead, chromium, mercury, copper, lithium, or silver, manganese polychlorinated biphenyl	1) E-waste from electrical and electronic components 2) Discarded solar panel 3) E-waste from IT Asset Disposition (ITAD)	700 E-waste – 500 Solar Panel – 200	• AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn Bhd • SMT Technologies Sdn Bhd • Motoskal Dan Erjin Nasional Sdn. Bhd. • ASE Electronics • WD • Kyocera AVX Components • Clarion Sdn Bhd • Majlis Bandaraya Pulau Pinang • Print Towers • Motoskal Dan Erjin Nasional Sdn. Bhd. • MSM Prial • EPE Packaging (Penang) Sdn Bhd • Advanced Energy • Dell • Hewlett Sdn Bhd • Ultra Clean Technology • Onnect (M) Sdn. Bhd. • Ultimate Machining Solutions (M) Sdn. Bhd. • CelcomDigi • Sin Line Tek • Watron Technology (Malaysia) Sdn Bhd • Diemet Klang (Malaysia) Sdn. Bhd. • REMC Electronic Materials Sdn Bhd • Bhatia Electronics Sdn Bhd • Hiachi Petronas Digital Sdn. Bhd. • Tenaga Nasional Berhad (TNB) • Solarvest Holdings Berhad • Solar Sentinel Sdn. Bhd • ERS Energy Solar PV solutions • Scaltec Solar Malaysia

Waste Code	Waste Description	Waste Acceptance Criteria	Quantity (TPM)	Potential Waste Generators
SW 103	Waste of batteries containing cadmium, nickel, mercury or lithium	Disposed batteries (LiB) consisting of cadmium, nickel, mercury or lithium-nickel-manganese (NiCd), cobalt-oxide (NiO), lithium-iron-phosphate (LFP), lithium-manganese-cobalt-titanium-oxide (NCA), (NCA),	300	• AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn Bhd • Motoskal Dan Erjin Nasional Sdn. Bhd • CelcomDigi • Watron Technology (Malaysia) Sdn Bhd
SW 104	Dust, slag, dross or ash containing arsenic, mercury, cadmium, aluminium, copper, nickel, chromium, beryllium, antimony, tellurium, thallium or selenium, excluding slag from an iron and steel factory	Dust, slag, dross, ash containing > 50% solder metal, > 50% aluminium, silver/ zinc & precious metals	50	• AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn Bhd • Lumitec (M) Sdn Bhd - Plant 1 • Watron Technology (Malaysia) Sdn Bhd • Southern Pipe Industry (M) Sdn Bhd. • Kyocera AVX Components • Clarion Sdn Bhd • Betamek Electronics (M) Sdn Bhd. • Compulime (Malaysia) Sdn. Bhd. • Lumitec (M) Sdn Bhd - Plant 1 • Kyocera AVX Components
SW 108	Leaching residues from zinc processing in dust and sludges form	Dust, slag, dross, ash containing >50% solder/ residual metals	20	• Lumitec (M) Sdn Bhd - Plant 1 • Kyocera AVX Components
SW 325	Uncured resin waste containing organic solvents or heavy metals, including epoxy resin and phenolic resin	Paints/tying/containers containing >30% solder/ in or >2% silver	10	• Kyocera AVX Components • AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn. Bhd. • Compulime (Malaysia) Sdn. Bhd. • Watron Technology (Malaysia) Sdn Bhd

Waste Code	Waste Description	Waste Acceptance Criteria	Quantity (TPM)	Potential Waste Generators
SW 305	Spent lubricating oil	Spent lubricating oil containing water content < 5%. Solid content < 5%.	100	• AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn Bhd • Motoskal Dan Erjin Nasional Sdn. Bhd. • Advanced Energy
SW 306	Spent hydraulic oil	Spent hydraulic oil containing > 80% oil content, water content < 5%, sludge content < 5%.	30	• AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn Bhd • Motoskal Dan Erjin Nasional Sdn. Bhd.
SW 311	Waste of oil or oily sludge	Waste oil or oily sludge containing > 70% oil content, Solid content < 25%. Water content < 5%.	20	• Penang Port Sdn Bhd • Hydrotecance Engineering Sdn Bhd

*Total quantity for liquid type (oil-based) scheduled waste = 150 TPM

Fasa 1 melibatkan penyimpanan luar tapak bagi Buangan Terjadual SW 110, manakala Fasa 2 melibatkan kawasan Pemulihan Buangan Bukan Terjadual dan Buangan Terjadual).

PENYIASATAN

- Pilih tapak dan ukur;
- Kajian asas alam sekitar; dan
- Kajian Penilaian Impak Alam Sekitar

PEMBANGUNAN

Fasa 1 (Cadangan Kawasan Penyimpanan Luar Tapak Terjadual (SW110):

- Rak penyimpanan;
- Kawasan kuarantin yang ditetapkan;
- Pembendungan tumpahan;
- Peralatan pengendalian;
- Perlindungan kebakaran;
- Papan tanda; dan
- Perlindungan saliran

Fasa 2 (Cadangan Kawasan Pemulihan Buangan Bukan Terjadual dan Buangan Terjadual)

- Penandaan sempadan dan penyediaan kawasan projek;
- Pengangkutan peralatan, jentera, bekalan dan bahan;
- Pemasangan dan penempatan jentera serta peralatan;
- Ujian dan pentauliahan bagi memastikan kecekapan sistem; dan
- Pengurusan sisa.

Summary of Scheduled Waste Quantity:

Phase 1:

- (a) SW110 – 700 TPM

Phase 2:

- (b) Metal Type Scheduled Waste – 1,080 TPM
- (c) Solid Type Scheduled Waste – 610 TPM
- (d) Liquid Type (Oil-Based) Scheduled Waste – 150 TPM
- (e) Liquid Type (Solvent-Based) Scheduled Waste – 25 TPM

*Total Scheduled Waste Quantity = 2,565 TPM

Waste Code	Waste Description	Waste Acceptance Criteria	Quantity (TPM)	Potential Waste Generator
SW 110 (E-waste & solar panel)	Waste from electrical and electronic assemblies containing accumulators, mercury switches, glass from cathode-ray tubes and other activated glass or polychlorinated biphenyl containing with lead, chromium, mercury, lead, nickel, copper, lithium, or silver, manganese polychlorinated biphenyl	4) E-waste from electrical and electronic components 5) Discarded solar panel 6) E-waste from IT Asset Disposition (ITAD)	700 E-waste – 500 Solar Panel – 200	• AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn Bhd • SMT Technologies Sdn Bhd • Motoskal Dan Erjin Nasional Sdn. Bhd. • B Brain • ASE Electronics • WD • Kyocera AVX Components • Clarion Sdn Bhd • Majlis Bandaraya Pulau Pinang • Print Towers • Motoskal Dan Erjin Nasional Sdn. Bhd. • MSM Prial • EPE Packaging (Penang) Sdn Bhd • Advanced Energy • Dell • Hewlett Sdn Bhd • Ultra Clean Technology • Onnect (M) Sdn. Bhd. • Ultimate Machining Solutions (M) Sdn. Bhd. • CelcomDigi • Sin Line Tek • Watron Technology (Malaysia) Sdn Bhd • Diemet Klang (Malaysia) Sdn. Bhd. • REMC Electronic Materials Sdn Bhd • Bhatia Electronics Sdn Bhd • Hiachi Petronas Digital Sdn. Bhd. • Tenaga Nasional Berhad (TNB) • Solarvest Holdings Berhad • Solar Sentinel Sdn. Bhd • ERS Energy Solar PV solutions • Scaltec Solar Malaysia

Table 5-2(c): Phase 2: Solid -Type Scheduled Waste Collection – Waste Acceptance Criteria and Monthly Quantities

Waste Code	Waste Description	Waste Acceptance Criteria	Quantity (TPM)	Potential Waste Generators
SW 409	Disposed containers, bags or rags, plastics, papers or filters contaminated with scheduled chemicals, pesticides, mineral oil or scheduled wastes	All types and sizes of containers, contaminated with chemical, oil, paint, acid, alkaline and solvent.	60	• AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn Bhd • Print Towers • Compulime (Malaysia) Sdn. Bhd. • Advanced Energy • Teleflex • Watron Technology (Malaysia) Sdn Bhd • Betamek Electronics (M) Sdn Bhd
SW 410	Rags, plastics, papers or filters contaminated with scheduled wastes	Cotton rags, plastic bags, plastic fillers, gloves and articles contaminated with oil, paint and solvent.	50	• AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn Bhd • Motoskal Dan Erjin Nasional Sdn. Bhd. • Print Towers • Penang Port Sdn Bhd • Compulime (Malaysia) Sdn. Bhd • Watron Technology (Malaysia) Sdn Bhd • Betamek Electronics (M) Sdn Bhd • Eureka Elektrik Sdn Bhd.
SW 421	A mixture of scheduled wastes	Metal chips, oily cables and articles with embedded oil content.	100	• SAM Aviation • Sstelo • SMT Technologies (Malaysia) Sdn Bhd • SWI Manufacturing Sdn Bhd. • Ultra Clean Technology
SW 422	A mixture of scheduled and non-scheduled wastes	Metal chips, insulated electrical components embedded or contaminated with <20% oil/coolant content.	400	

*Total quantity for solid-type scheduled waste = 610 TPM

Table 5-2(e): Phase 2: Liquid Type (Solvent-Based) Scheduled Waste Collection – Waste Acceptance Criteria and Monthly Quantities

Waste Code	Waste Description	Waste Acceptance Criteria	Quantity (TPM)	Potential Waste Generators
SW 322	Waste of non-halogenated organic solvents	Waste of non-halogenated organic solvents with > 80% solvent, Water content < 10%, Solid content < 10%	25	• AT&S Austria Technologie & Systemtechnik (Malaysia) Sdn Bhd • Compulime (Malaysia) Sdn. Bhd. • Watron Technology (Malaysia) Sdn Bhd • Betamek Electronics (M) Sdn Bhd

*Total quantity for liquid type (solvent-based) scheduled waste = 25 TPM

AKTIVITI PROJEK

PENGOPERASIAN

Fasa 1 (Cadangan Kawasan Penyimpanan Luar Tapak Buangan Terjadual (SW110):

- Pengangkutan, penyimpanan dan pengendalian bahan buangan terjadual; dan
- Pengurusan risiko keselamatan, kesihatan dan alam sekitar

Fasa 2 (Cadangan Kawasan Pemulihan Buangan Bukan Terjadual dan Buangan Terjadual)

- Pengangkutan, penyimpanan dan pengendalian bahan buangan terjadual dan sisa bukan terjadual;
- Proses pemulihan sisa terjadual;
- Proses pemulihan sisa bukan terjadual;
- Operasi dan penyelenggaraan sistem kawalan pencemaran udara;
- Operasi dan penyelenggaraan Sistem Rawatan Efluen Perindustrian;
- Pengurusan sisa;
- Penyimpanan, pengendalian dan penghantaran produk;
- Pengurusan risiko keselamatan, kesihatan dan alam sekitar; dan
- Penyelidikan dan pembangunan (R&D).

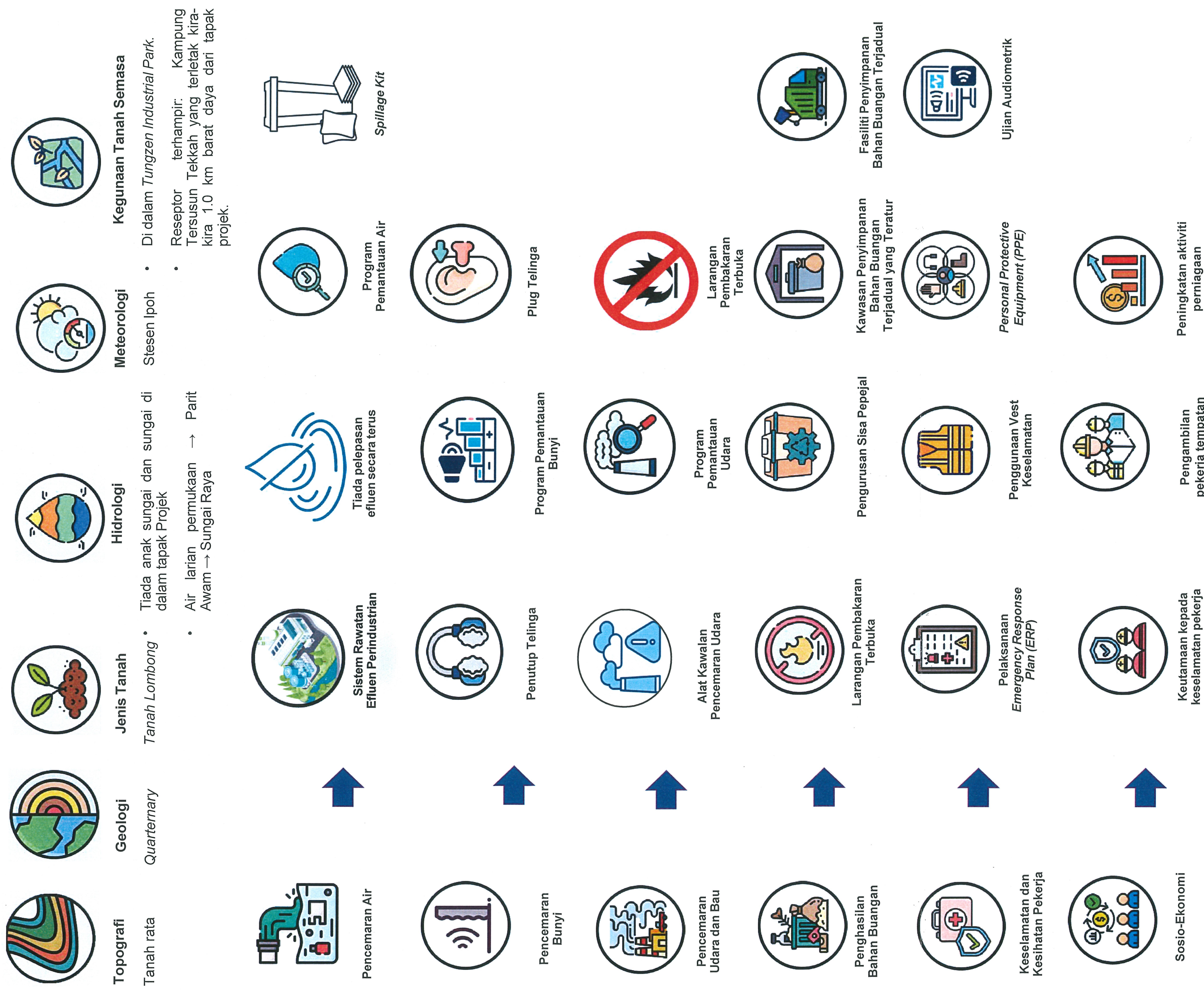
PENUTUPAN

- Demobilisasi infrastruktur dan kemudahan; dan
- Pengurusan buangan di Tapak Projek

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PERSEKITARAN SEDIA ADA



“Proposed Off-site Scheduled Wastes Recovery Facility on PT 28413 (Part of Lot 332575) With an Area of 1.1764 Hectares (2.9069 Acres) at Tungzen Industrial Park in Mukim Sungai Raya, District of Kinta, Perak Darul Ridzuan”

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CADANGAN PROGRAM PEMANTAUAN

Komponen	Lokasi	Parameter & Frekuensi
Pemantauan Pelepasan Cerobong	Cerobong #1	Parameters: Total Particulate Matter, NMVOC, Nitrogen Dioxide, Sulphur Dioxide Frekuensi: Setahun sekali semasa peringkat operasi
	Cerobong #2	Parameters: Total Particulate Matter Frekuensi: Setahun sekali semasa peringkat operasi
	Cerobong #3	Parameters: Total Particulate Matter, Sulphur Dioxide Frekuensi: Setahun sekali semasa peringkat operasi
Kualiti Air	5 stesen (Parit awam sedia ada, Sungai Sindu, Sungai Raya)	Parameters: Temperature, pH, COD, BOD, Conductivity, Phenol, Total Suspended Solid, Dissolved Oxygen, Mercury, Cadmium, Chromium Hexa-Chromium, Arsenic, Cyanide, Lead, Tri-Chromium, Copper, Manganese, Nickel, Tin, Zinc, Boron, Iron, Phenol, Free Chlorine, Sulphide, Oil & Grease, Silver, Aluminium, Selenium, Barium, Fluoride, Formaldehyde, Ammoniacal Nitrogen, Colour Frekuensi: Setiap 3 bulan sekali semasa peringkat pembangunan dan setahun sekali semasa peringkat operasi
Kualiti Air Bawah Tanah	1 stesen (Tapak cadangan projek)	Parameters: Total Coliform, Escherichia coli, Turbidity, Color, pH, Temperature, Conductivity, Total Dissolved Solids, Chloride, Ammonia, Nitrate, Iron, Fluoride, Total Hardness, Manganese, COD, BOD, MBAS, Minerals Oils, Nitrite, Mercury, Arsenic, Cyanide, Lead, Chromium, Zinc, Sodium, Sulphate, Selenium, Silver, Magnesium, Phenol, Nickel, Aldrin, Dieldrin, Chlordane, 4,4'-DDT, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Lindane, Methoxychlor, Endosulfan, Alachlor, Aldicarb, Permethrin, Carbofuran, Gross α , Gross β Frekuensi: Setiap 3 bulan sekali semasa peringkat pembangunan dan setahun sekali semasa peringkat operasi
Kualiti Ambien Udara	1 stesen (Tapak cadangan projek)	Parameter: PM_{10} , $PM_{2.5}$, SO_2 , NO_2 , CO , O_3 , VOC Frekuensi: Setiap 3 bulan sekali semasa peringkat pembangunan dan setahun sekali semasa peringkat operasi
Tahap Bunyi Bising		Parameter: L_{10} , L_{50} , L_{90} dan Total LAeq Frekuensi: Setiap 3 bulan sekali semasa peringkat pembangunan dan setahun sekali semasa peringkat operasi
Kualiti Bau	Titik pelepasan akhir efluen	Parameter: Odour intensity, odour concentration, odour characters, weather dan wind direction Frekuensi: Setiap 3 bulan sekali semasa peringkat pembangunan dan setahun sekali semasa peringkat operasi
Sistem Rawatan Efluen Industri (IETS)		Parameters: pH, Chemical Oxygen Demand, Biochemical Oxygen Demand, Suspended Solids, Oil & Grease, Color, Zinc, Mercury Frequency: Mingguan (3 kali sebulan)
Sistem Rawatan Efluen Industri (IETS)	Titik pelepasan akhir efluen	Parameters: Full Parameter (Temperature, pH, Chemical Oxygen Demand, Biochemical Oxygen Demand, Conductivity, Total Suspended Solid, Dissolved Oxygen, Mercury, Cadmium, Chromium Hexavalent, Arsenic, Cyanide, Lead, Chromium Trivalent, Copper, Manganese, Nickel, Tin, Zinc, Boron, Iron, Phenol, Free Chloride, Sulphide, Oil & Grease, Silver, Aluminium, Selenium, Barium, Fluoride, Formaldehyde, Ammoniacal Nitrogen, Colour) Frequency: Setiap bulan

