

Ringkasan Eksekutif

Tajuk Projek:

EIA for Proposed Additional Scheduled Waste Code SW104 for the Existing Offsite Scheduled Waste Recovery Facility at Lot 43815 (Geran 253368), Jalan 2A/1, Kawasan Perindustrian Techvalley, 71950 Mukim Bandar Sri Sendayan, Daerah Seremban, Negeri Sembilan

Pemaju Projek:

Hua San Copper Industry Sdn Bhd

No. 62-2, Jalan 2A/27A,
Section 1, Wangsa Maju,
53300 Kuala Lumpur

Jururunding EIA:

Green Earth Consultancy SB

28 Jalan Indah 1/4
Taman Universiti Indah
43300 Seri Kembangan Selangor

Tel No. : 013 3518 102

Keperluan Perundangan:

AKTA KUALITI ALAM SEKELILING 1974
Perintah Kualiti Alam Sekeliling (Aktiviti Yang
Ditetapkan) (Penilaian Kesan Kepada Alam
Sekeliling) 2015

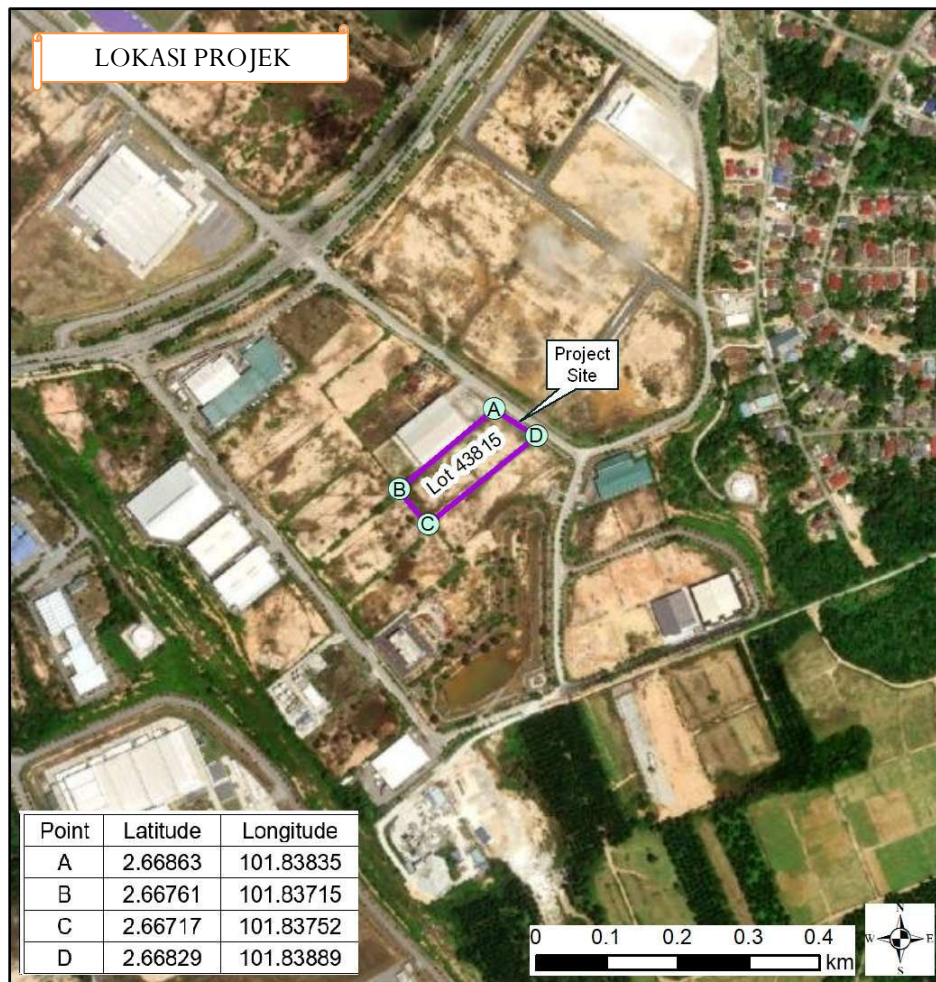
JADUAL PERTAMA
Aktiviti No. 14(a)(i)
Pembinaan loji pulih guna (luar tapak)

Penyataan Keperluan:

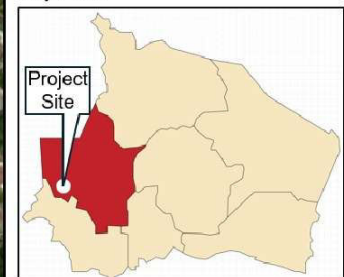
Perkhidmatan Penting Alam Sekitar
Seiring dengan Dasar 4IR Negara

Amalan Pemuliharaan Dros Aluminium
yang Mampan dan Menguntungkan

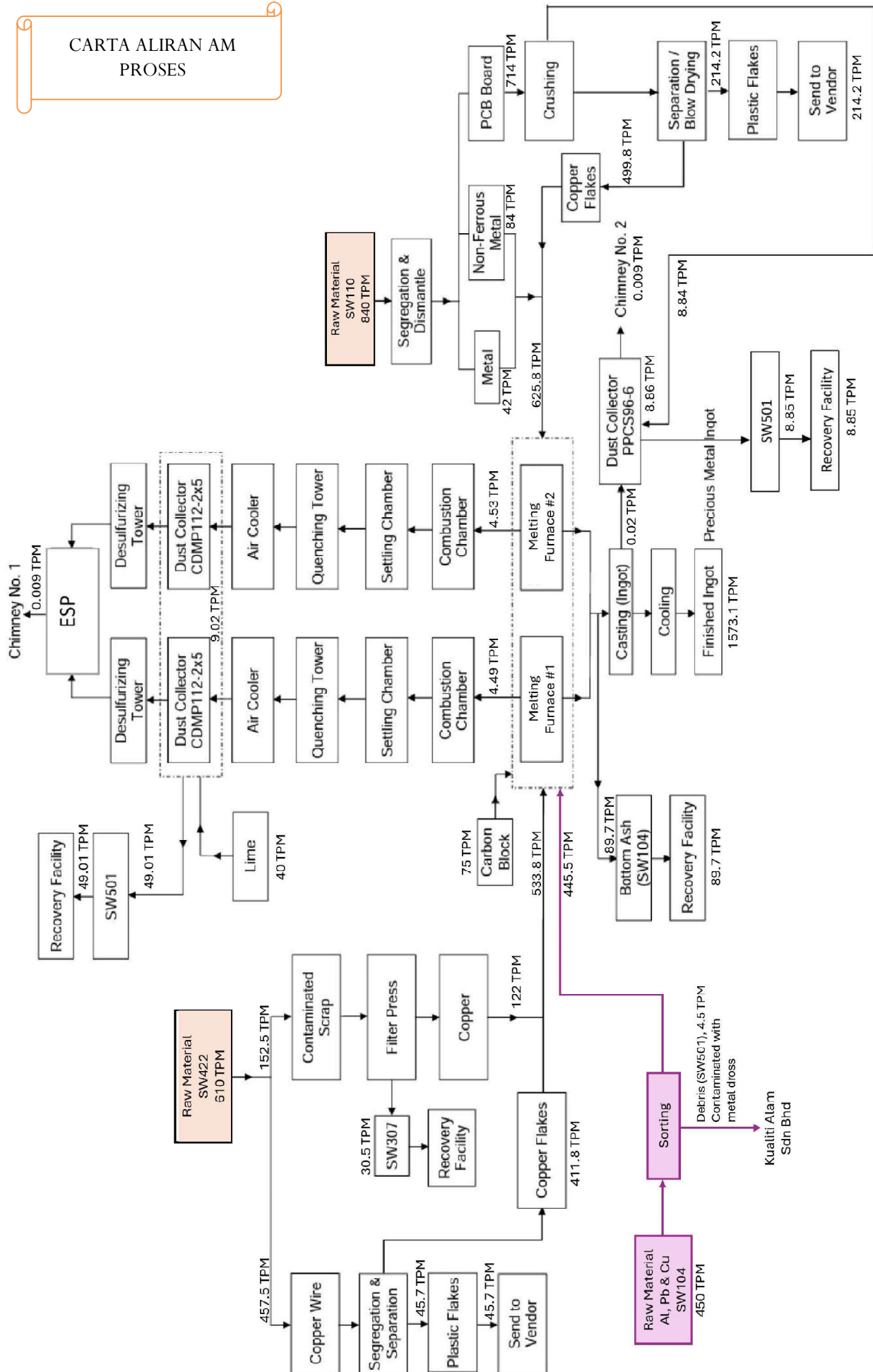
Penjanaan Hasil kepada Negeri dan
Negara



Key Plan:



CARTA ALIRAN AM PROSES



AKTIVITI PROJEK

Fasa Pembinaan

1. Mengupah pekerja
2. Mengangkut bahan pengubahsuaian, mesin & peralatan
3. Kerja-kerja pengubahsuaian

Fasa Operasi dan Penyelenggaraan

1. Kumpul & angkut bahan mentah ke fasiliti
2. Terima, kendali & stor bahan mentah
3. Proses pemerolehan kembali
4. Simpan, kendali & hantar produk siap
5. Simpan, kendali & lupus sisa
6. Urus risiko kesihatan, keselamatan & alam sekitar

PERSEKITARAN SEDIA ADA



Saliran & Sungai

- Air larian permukaan disalurkan ke sistem perparitan sedia ada dan mengalir ke Sg Jijan
- Tiada muka sauk di hilir tapak Projek



Gunatanah Semasa

- Dikelilingi kawasan perindustrian, kawasan perumahan, ladang kelapa sawit dan lot-lot tanaman dalam lingkungan 5- km radius



Iklim

- Suhu: 27.2 – 28.4 °C
- Hujan: 1731.6 – 2564.6 mm
- Kelembapan: 72.9 – 83.6%
- Angin: 15.4% TL



Kualiti Air

- 2 stesen: W1 – W2
- WQI:
- W1: 81 (Bersih)
- W2: 84 (Bersih)



Kualiti Udara

- 2 stesen: A1 – A2
- Semua parameter dalam had MAAQS 2020



Paras Bunyi

- 2 stesen: N1 – N1
- Semua stesen mematuhi tahap bunyi yang disyorkan oleh JAS



Flora & Fauna

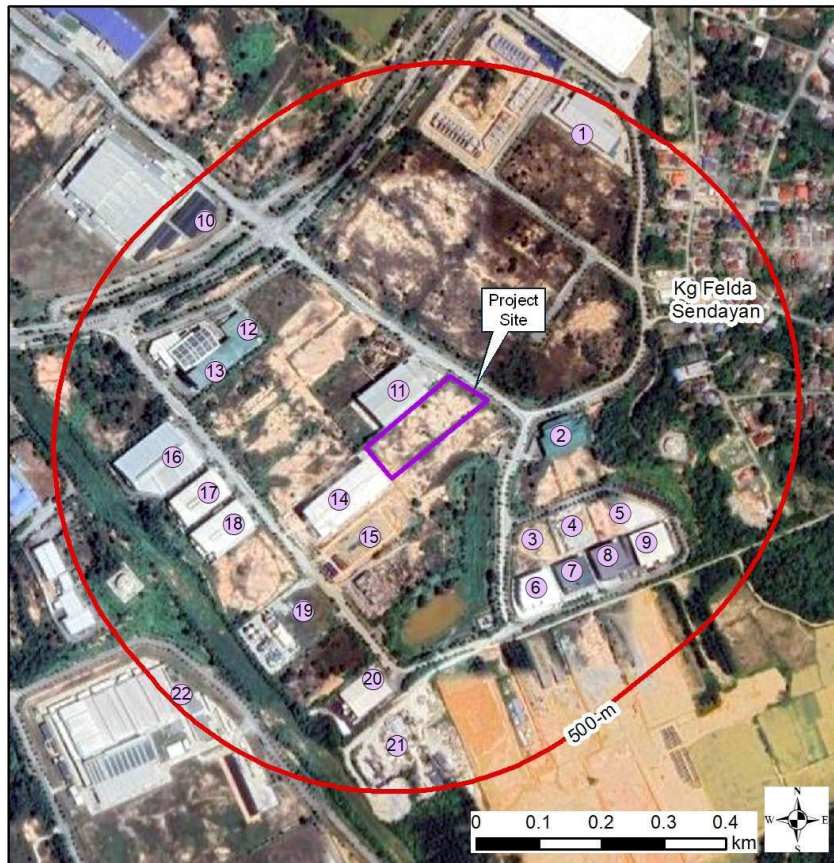
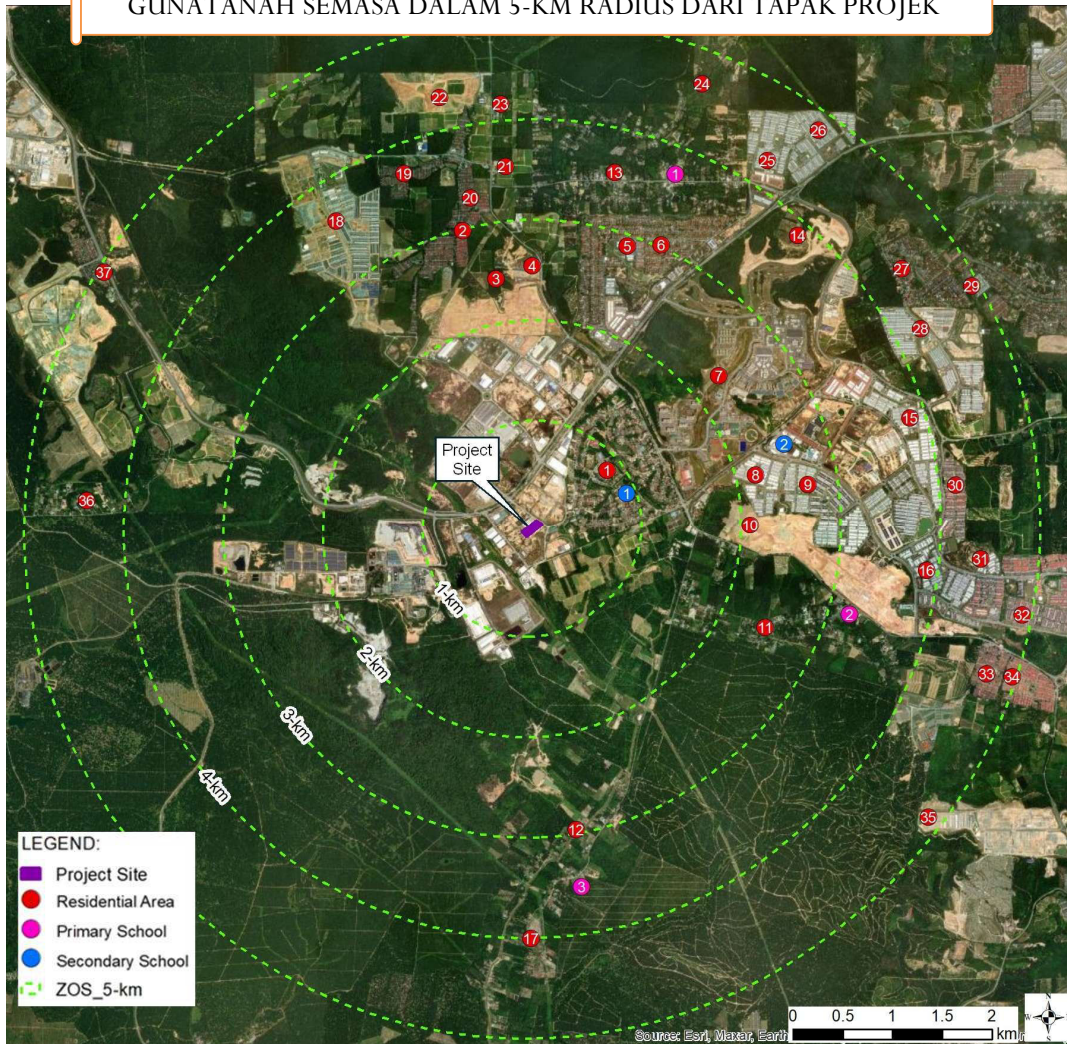
- Tiada tumbuhan/ habitat biologi ditemui di dalam dan berdekatan tapak



Kajian Sosio

- Jumlah responden: 103
- Setuju: 35.9%
- Tidak setuju: 29.1%
- Tiada pendapat: 35.0%

GUNATANAH SEMASA DALAM 5-KM RADIUS DARI TAPAK PROJEK



LOT-LOT PREMIS LAIN

DALAM 500-M DARI
TAPAK PROJEK

KAJIAN IMPAK & LANGKAH TEBATAN (FASA OPERASI)



PENCEMARAN AIR

Impak: Pencemaran air akibat kecuaihan pengurusan air buangan

P2M2:

- Larang pembuangan air ke saluran air semula jadi yang berdekatan
- Kumpul sampah dalam tong bertutup & lupus di tapak pelupusan yang dibenarkan
- Laksana langkah cegah & kurangkan tumpahan atau pelepasan tidak sengaja

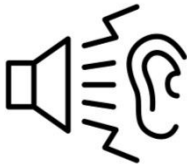


PENCEMARAN UDARA

Impak: Pencemaran udara daripada proses kitar semula

P2M2:

- Lantik orang yang berwibawa untuk selia operasi APCs
- Jalankan pemantauan prestasi dan pematuhan APCs
- Jalankan pemantauan impak kualiti udara secara berkala



PENCEMARAN BUNYI

Impak: Bunyi bising daripada mesin

P2M2:

- Sediakan alat penutup telinga kepada pekerja
- Jalankan pemeriksaan berkala & penyelenggaraan jentera
- Jalankan program pemantauan paras bunyi secara berkala



KESELAMATAN & KESIHATAN PEKERJAAN

Impak: Kemalangan dan kecederaan di tempat kerja atau penyebaran penyakit berjangkit

P2M2:

- Semua pekerja asing perlu menjalani pemeriksaan kesihatan
- Sediakan PPE untuk pekerja
- Kuatkuasa polisi 'Dilarang merokok' dengan tegas
- Pasang sistem pemercik pemadam api

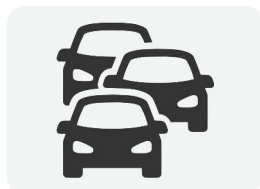


PENJANAAN SISA

Impak: Kecuaian pengendalian bahan buangan

P2M2:

- Melarang pembakaran terbuka sebarang bahan buangan
- Sediakan tong & lupuskan buangan di tapak pelupusan yang dibenarkan
- Urus semua BT mengikut *EQ(SW) Regulations 2005*



KESESAKAN LALU LINTAS

Impak: Kemalangan jalan raya akibat bahaya memandu

P2M2:

- Selenggara kenderaan & pastikan pemandu memandu secara berhati-hati
- Bersihkan sebarang bahan yang terjatuh di jalan dengan segera
- Jadualkan program pengangkutan ke waktu bukan waktu puncak



ISU SOCIO-EKONOMI

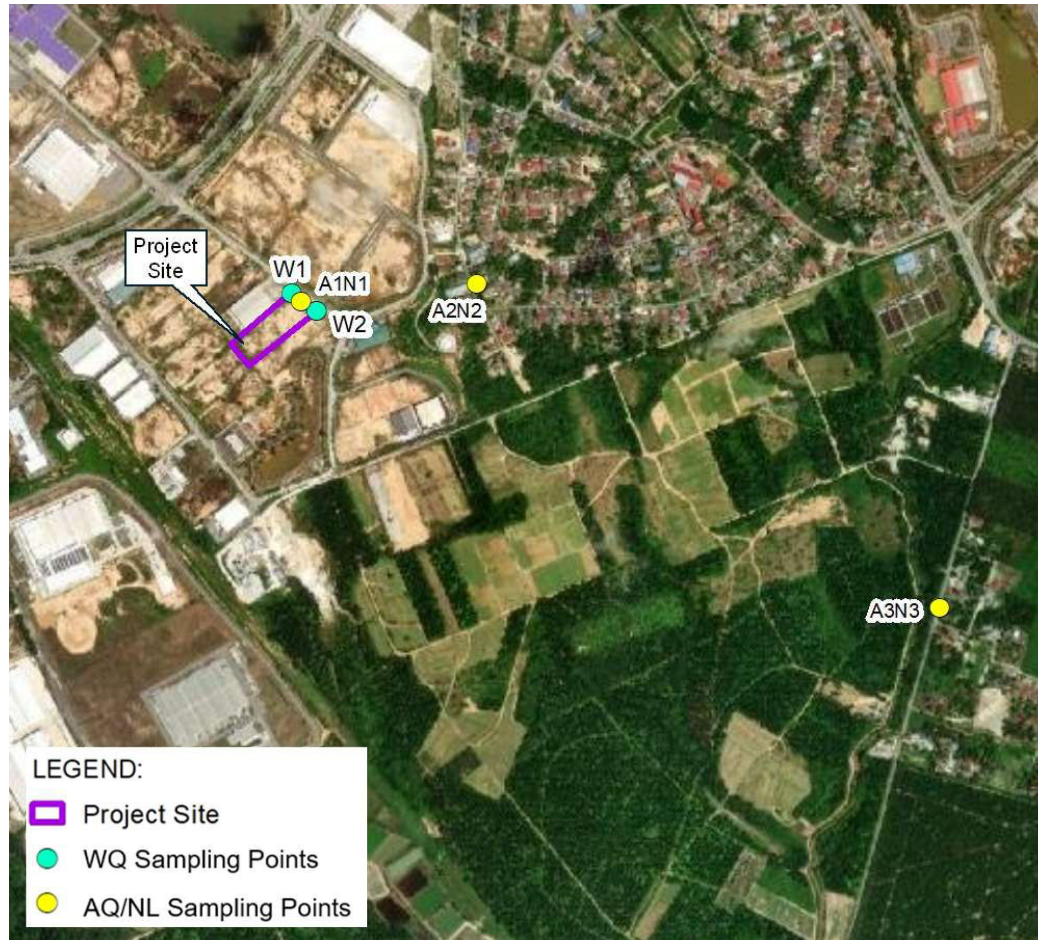
Impak: Pertikaian atau konflik antara pekerja

P2M2:

- Utamakan peluang pekerjaan kepada penduduk setempat
- Upah pekerja imigran mengikut Seksyen 8, Akta Imigresen 1959/1963
- Beri taklimat kepada pekerja migran tentang aspek sosiobudaya masyarakat tempatan

PROGRAM PEMANTAUAN PEMATUHAN DAN IMPAK (FASA OPERASI)

Komponen	Lokasi	Parameter & Kekerapan Pensampelan
PEMANTAUAN PEMATUHAN (APCS)		
Udara bersih yang ditapis dari APCS	Tempat pensampelan Cerobong 1	- Parameter: HCl, NO₂, SO₂, <i>Total PM</i> - Kekerapan: Secara Berterusan
	Tempat pensampelan Cerobong 2	- Parameter: <i>Total PM</i> - Kekerapan: Setiap Tahun
PEMANTAUAN IMPAK		
Kualiti Air	W1 – W2	- Parameter: pH, DO, BOD, COD₅, TSS, AN, O&G, Total Coliform, As, Cd, Cr (VI), Cr (III), Cu, Fe, Hg, Mn, Ni, Pb, Sn & Zn - Frequency: Suku Tahunan
Kualiti Udara	A1 – A3	- Parameter: PM₁₀, PM_{2.5}, SO₂, NO₂, CO & O₃ - Kekerapan: Setiap Bulan
Kualiti Udara	A1 – A3	- Parameter: <i>Total VOC</i> - Kekerapan: Suku Tahunan
Paras Bunyi	N1 – N2	- Parameter: LA_{eq}, LA_{max}, LA_{min}, LA₁₀ & LA₉₀ - Kekerapan: Suku Tahunan



Executive Summary

Project Title:

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Project Proponent:

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EIA Consultant:

Green Earth Consultancy SB

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43300 Seri Kembangan Selangor

Tel No. : 013 3518 102

Legislative Requirement:

ENVIRONMENTAL QUALITY ACT 1974
Environmental Quality (Prescribed Activities)
(Environmental Impact Assessment) Order 2015

FIRST SCHEDULE

Activity No. 14(a)(i)

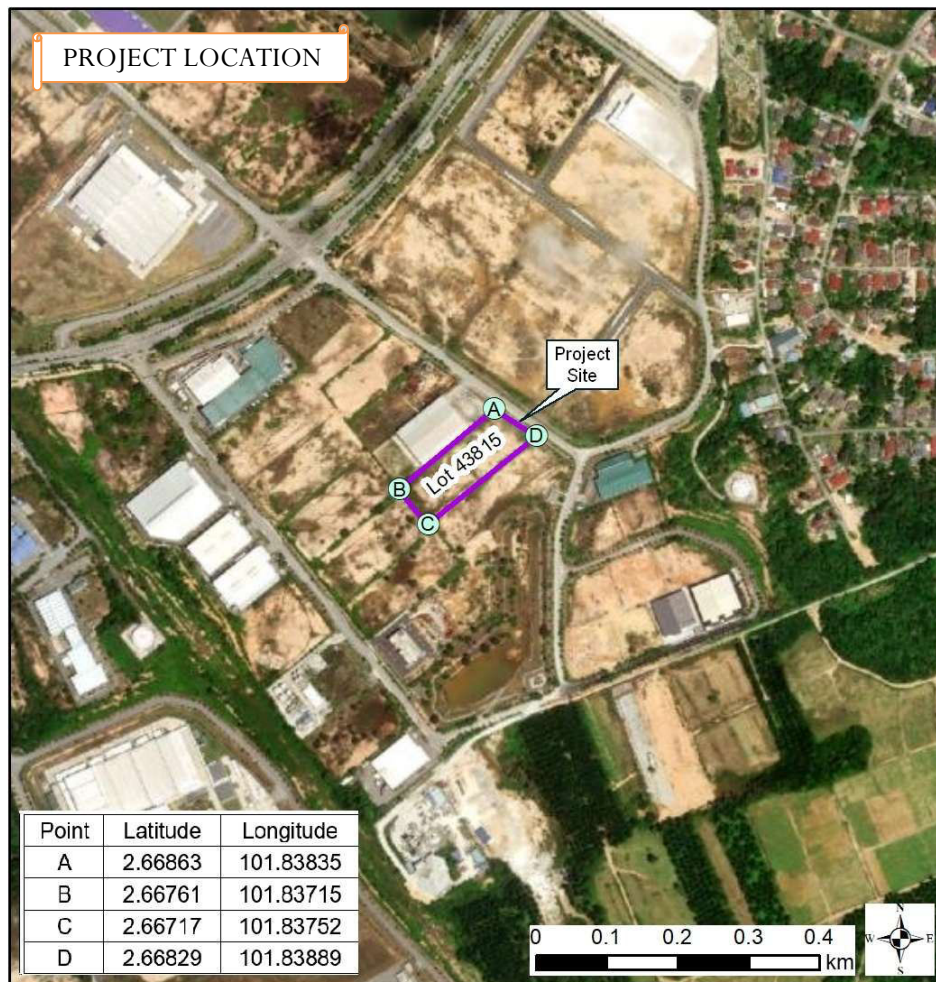
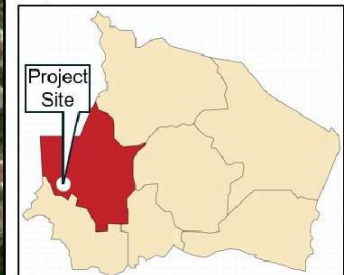
Construction of recovery plant (off-site)

Statements of Need:

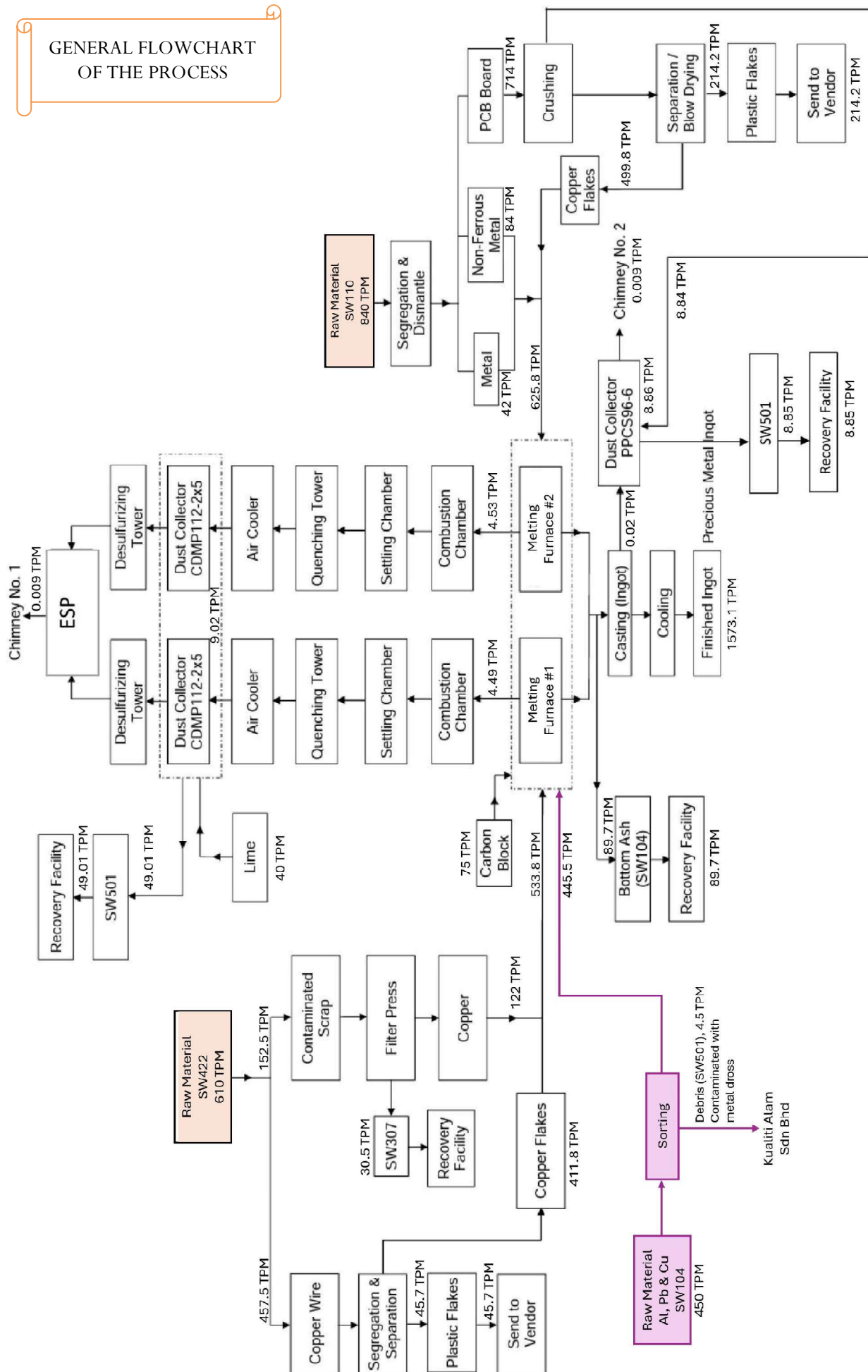
Essential Environmental Services Goes along with the National Policy on Industry 4.0

Sustainable and Profitable Aluminium Dross Recovery Practices

Revenue Generation to the State and Country

**Key Plan:**

GENERAL FLOWCHART OF THE PROCESS



PROJECT ACTIVITIES

Construction Phase

1. Recruit renovation workers
2. Transport of renovation materials, machinery & equipment
3. Renovation works

Operational and Maintenance Phase

1. Collect & transport raw material to facility
2. Receive, handle & temporary storage raw material within facility
3. Recovery process
4. Store, handle & deliver of finished product
5. Store, handle & dispose of residual waste
6. Manage safety, health and environmental risk

EXISTING ENVIRONMENT



Drainage System

- Surface runoff discharge into an existing drainage system then to Sg Jijan
- No water intake point downstream



Landuse

- Dominated by industrial area, Kajresidential areas, oil palm estates and agricultural lands within a 5-km radius



Climate

- Temp: 27.2 – 28.4 °C
- Rainfall: 1731.6 – 2564.6 mm
- Humidity : 72.9 – 83.6%
- Wind: 15.4% NE



Water Quality

- 2 stations: W1 – W2
- WQI:
- W1: 81 (Clean)
- W2: 84 (Clean)



Air Quality

- 3 stations: A1 – A3
- All parameters within the limit of MAAQS 2020



Noise Level

- 3 stations: N1 – N3
- All stations comply with DOE recommended permissible sound levels



Flora & Fauna

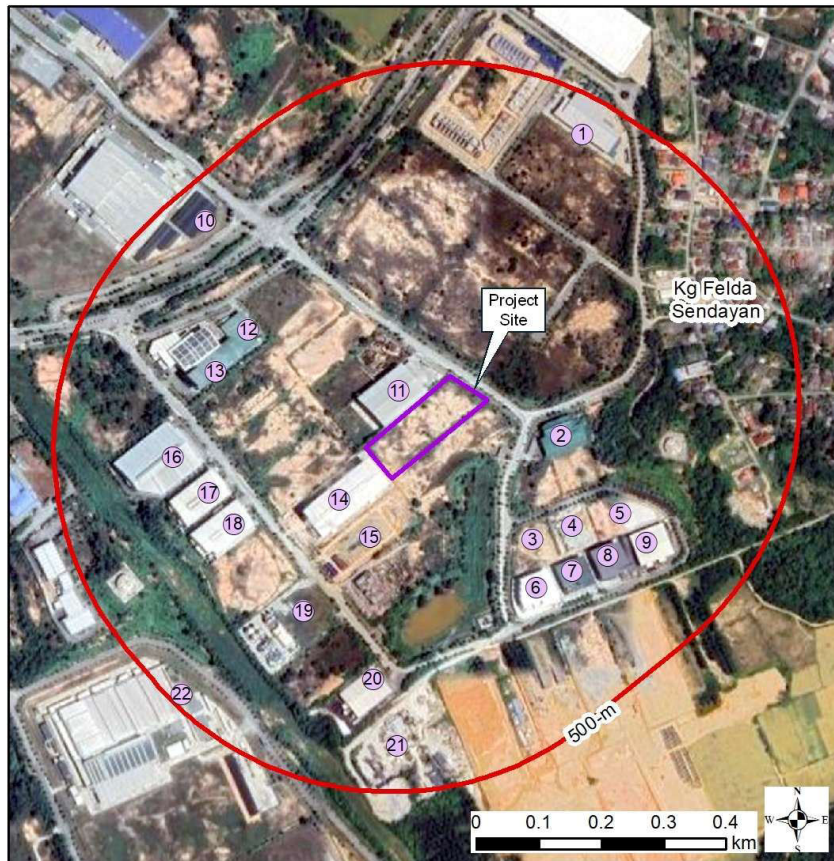
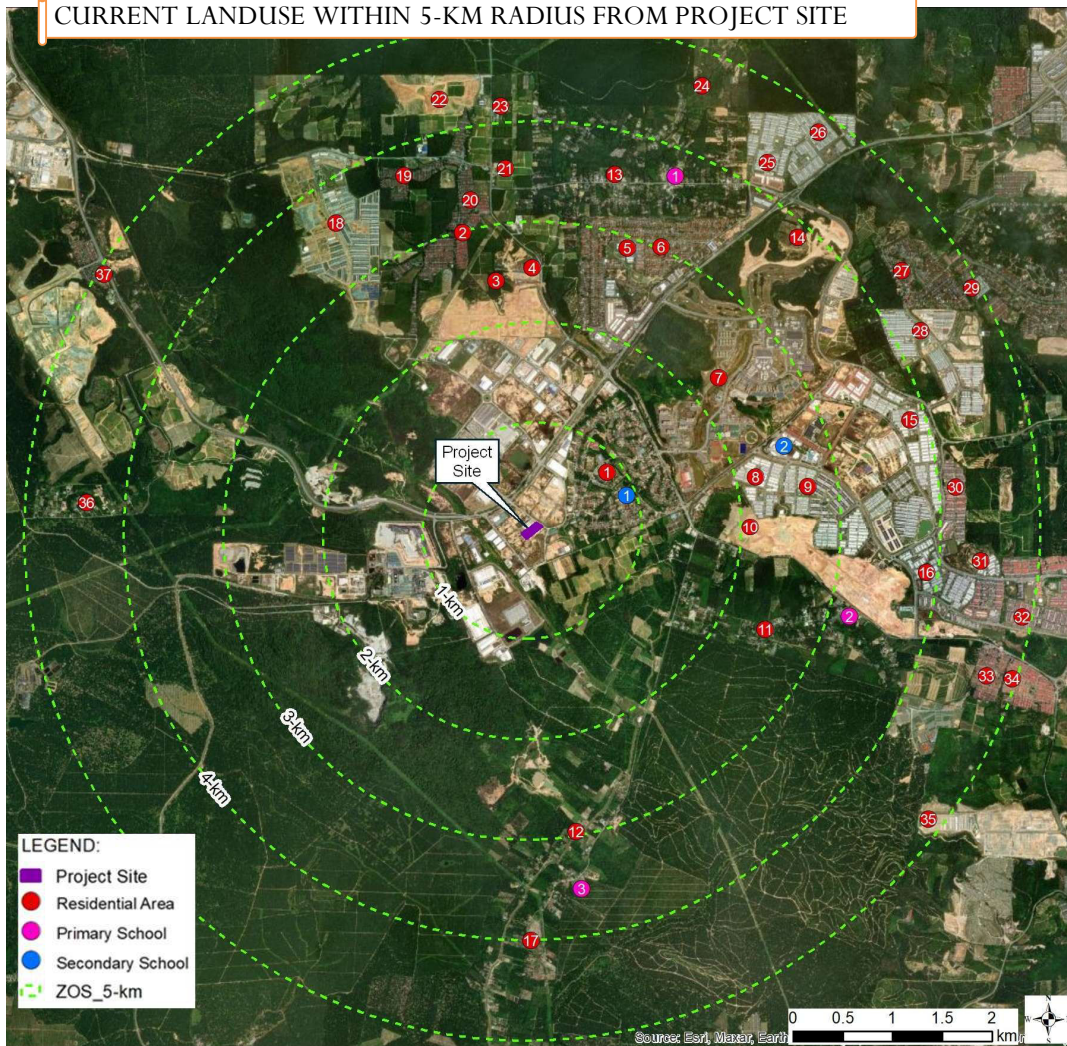
- Neither vegetation nor significant biological habitat was found within and immediately next to the site



Socio Survey

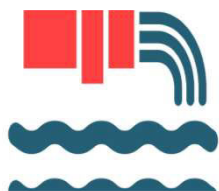
- Total respondents: 103
- Agree: 35.9%
- Disagree: 29.1%
- No opinion: 35.0%

CURRENT LANDUSE WITHIN 5-KM RADIUS FROM PROJECT SITE



NEIGHBOURING LOTS
WITHIN 500-M FROM
PROJECT SITE

IMPACT ASSESSMENT & MITIGATION MEASURES (OPERATIONAL PHASE)



WATER POLLUTION

Impact: Water pollution due to mismanagement of wastewater

P2M2:

- Prohibit direct water discharge into nearby natural watercourse
- Collect garbage in covered bins & disposed of at approved landfill
- Implement measures to prevent and mitigate spills or accidental discharges



AIR POLLUTION

Impact: Air pollutants from recycling process

P2M2:

- Appoint competent person to supervise operation and maintenance of APCS
- Conduct performance and compliance monitoring of APCS
- Conduct periodical ambient air quality monitoring program



NOISE POLLUTION

Impact: Noise from machinery

P2M2:

- Provide earmuffs to workers
- Carry out periodical inspection & maintenance of machinery
- Conduct periodical noise level monitoring program



OCCUPATIONAL SAFETY & HEALTH

Impact: Mishap and injury at work or spread of communicable disease

P2M2:

- All migrant workers to undergo medical check-ups
- Provide workers with PPE
- Strictly enforce 'No smoking' policy within the facility
- Install fire-fighting sprinkler system



WASTE GENERATION

Impact: Mishandling of wastes

P2M2:

- Prohibit open burning of any wastes
- Provide adequate rubbish bins and dispose of at approved dumpsite
- Manage all SW in accordance with EQ (SW) Regulations 2005



TRAFFIC CONGESTION

Impact: Road accident due to dangerous driving

P2M2:

- Maintain vehicles that use public roads & ensure drivers exercise careful driving
- Clean any materials dropped on the road immediately
- Schedule transportation program to non-peak hours



SOCIO-ECONOMIC ISSUE

Impact: Dispute or conflict between workers

P2M2:

- Give priority in job opportunities to the local population
- Recruit immigrant workers in accordance with Section 8, Immigration Act 1959/1963
- Brief migrant workers on socio-cultural aspects of local communities

COMPLIANCE AND IMPACT MONITORING PROGRAMME (OPERATIONAL PHASE)

Component	Location	Parameter & Sampling Frequency
COMPLIANCE MONITORING (APCS)		
• Treated air from APCS	• Sampling port of Chimney 1	• Parameter: HCl, NO ₂ , SO ₂ , Total PM • Frequency: Continuously
	• Sampling port of Chimney 2	• Parameter: Total PM • Frequency: Periodically
IMPACT MONITORING		
• Water Quality	• W1 to W2	• Parameter: pH, DO, BOD, COD ₅ , TSS, AN, O&G, Total Coliform, As, Cd, Cr (VI), Cr (III), Cu, Fe, Hg, Mn, Ni, Pb, Sn & Zn • Frequency: Quarterly
• Ambient Air Quality	• A1 to A3	• Parameter: PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , CO & O ₃ Frequency: Monthly
• Ambient Air Quality	• A1 to A3	• Parameter: Total VOC • Frequency: Quarterly
• Noise Level	• N1 to N3	• Parameter: LA _{eq} , LA _{max} , LA _{min} , LA ₁₀ & LA ₉₀ • Frequency: Quarterly

