



Environmental Audit



TYPES OF ENVIRONMENTAL AUDIT

- AUDIT PIHAK BERKUASA (JABATAN ALAM SEKITAR)
- AUDIT DALAMAN (JKR)
- AUDIT PIHAK KETIGA (PERUNDING BEBAS)



OBJECTIVES

- Ensure compliance to law and other legal requirements
- Understand the on-site audit process from EMS perspective
- Aware of the environmental issues related to construction activities
- Aware on the pollution control method related to construction activities



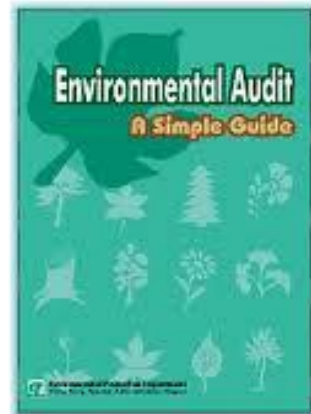
CONTENTS

- Audit References
- Project Information
- Pre-Site Visit
- Conduct of on-site audit and the related Pollution Control Measures
- DO'S and DON'TS



AUDIT REFERENCES

- Environmental Impact Assessment (EIA)
- Environmental Management Plan (EMP)
- Erosion and Sedimentation Control Plan (ESCP)
- Manual and procedures
- Environmental Aspect Register
- Site Layout Plan



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PROJECT INFORMATION

- Project details:
Project briefing - Project title, Client, Contractor, Consultant, Sub-contractor, Progress
- Site activities:
Layout plan - Current trade on site, size of development, neighbor, available facilities, familiarize with the project area.
- Documents and records:
EIA, EMP, ESCP, EAI Register, etc



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Pre-Site Visit

- ✓ Guide from the project site :
Project manager, project engineer, etc
- ✓ Personal Protective Equipment (PPE) :
Safety helmet, safety vest, safety boots, safety harness, ear plug, musk, etc.
- ✓ Camera
- ✓ A copy of layout plan
- ✓ Audit notes



Pre-Site Visit

- i. Identify the environmental receptors e.g. rivers, habitat of flora & fauna, neighbor, ambient air, etc.
- ii. Drainage system - current condition, final discharged point
- iii. General facilities - Site office, workers quarters, toilets, bathing area, canteen, chemical store, scheduled waste store, workshop, diesel skid tank, fabrication yard.



Pre-Site Visit

- iv. Specific facilities - Sedimentation pond, Ready-mix concrete plant, Premix plant, Crusher Plant, Dumping area,



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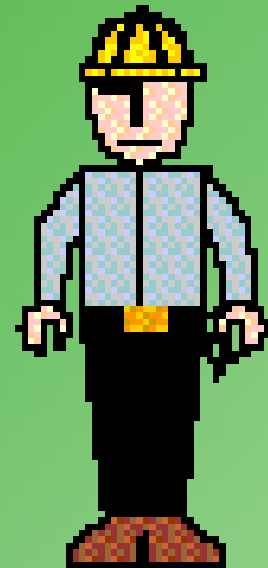


Conduct of On-Site Audit



General Area/Activities

1. Housekeeping
2. Domestic wastes collection area
3. Ambient air condition
4. Construction wastes disposal
5. Access road
6. Slope condition
7. Machineries operation
8. Contractors competency



Drainage System

1. Constructed as per ESCP
2. Condition of drain - Any blockage, water condition (flow/stagnant)
3. Final discharge point
4. Water pollution control method
5. Monitoring result



Water Pollution Control

1. Sediment basin / Sedimentation pond

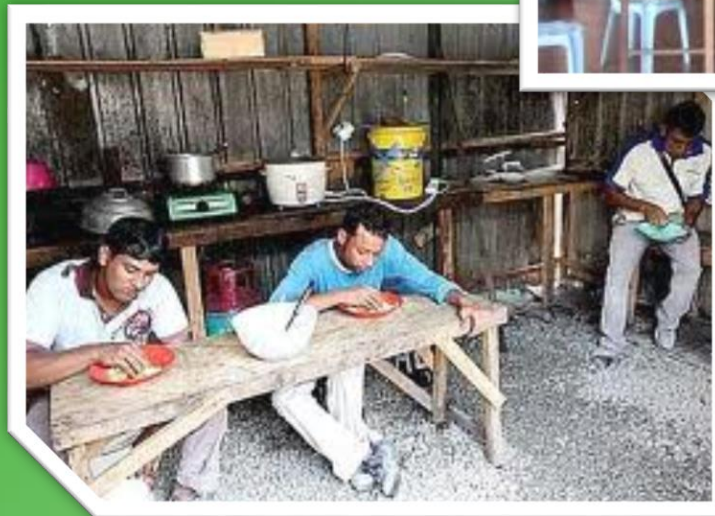
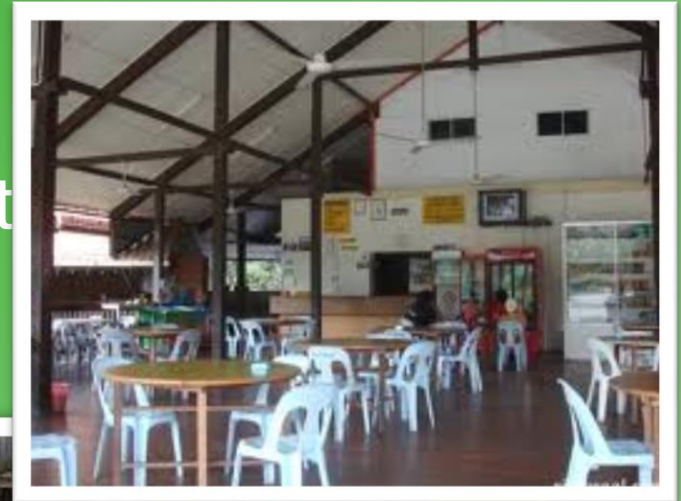
2. Silt trap

- ✓ Condition (slope/water level/silt level)
- ✓ Discharge
- ✓ Maintenance record
- ✓ Monitoring result



Canteen / Cooking Area

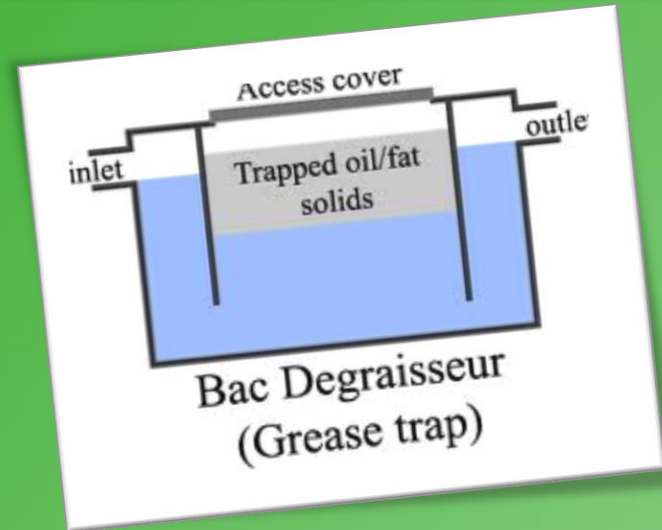
1. Housekeeping
2. Waste bin
3. Emergency/fire equipment
4. Waste water discharged



Water Pollution Control

Grease Trap

- ✓ Condition
- ✓ Discharge
- ✓ Maintenance record
- ✓ Monitoring result



BATHING

1. Sewage / Waste water discharged
2. Final discharged point water condition
3. Cleanliness
4. Septic Tank Condition
5. Over flow pipe condition
6. De-sludging record
7. Monitoring results



QUARTERS

1. Approval letter from local authority
2. Housekeeping
3. Power supply - TNB/Genset
4. Domestic waste collection bin
5. Traces of open burning
6. Cooking area
7. Monitoring results



Chemical Store / Scheduled Wastes Store

1. Area appropriately bunded or with secondary containment
2. Store sheltered or covered
3. Area properly barricaded
4. Any sign of spillage of chemicals
5. Labeling/Hazard sign
6. Emergency/fire equipment including spillage (spill kit)
7. Inventory
8. Disposal records



WORKSHOP

1. Machineries/Vehicles
2. Scheduled waste bin
3. Any sign of spillage of oil
4. Chemical/oil storage
5. Emergency/fire equipment including spillage (spill kit)



DIESEL SKID TANK

1. Area appropriately bunded or with secondary containment
2. Any sign of spillage of oil
3. Labeling/Hazard sign
4. Emergency/fire equipment including spillage (spill kit)
5. Nozzle position



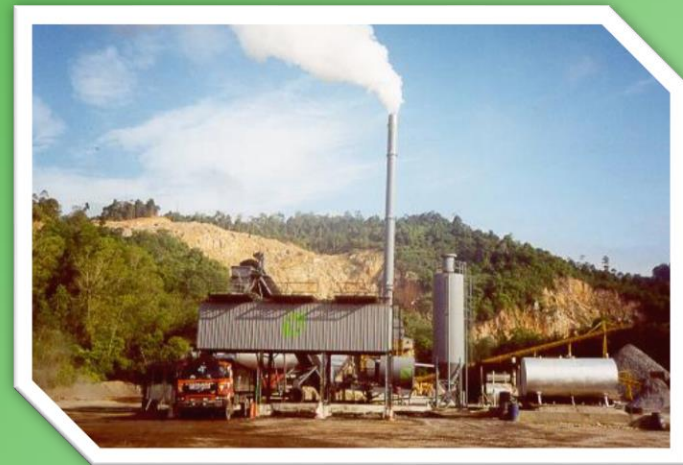
BAR BENDING YARD/FABRICATION YARD

1. Machineries are provided with secondary containment
2. Any sign of spillage of chemicals
3. Wastes - SW/Construction
4. Monitoring
5. Chemicals/oil/diesel/petrol storage containers - durable/label



READY MIX CONCRETE BATCHING PLANT/ PREMIX PLANT

1. Approval condition from DOE
2. Discharged of waste water
3. Dust control - scrubber
4. Diesel skid tank
5. Empty chemical containers
6. Waste products
7. Genset operation



TEMPORARY DUMPING AREA

1. Signage
2. Drainage system
3. Area properly barricaded
7. Inventory
8. Disposal records



THANK YOU

