

Environmental Guidelines for Construction Sites

Inspection Items	Guidelines	Remarks
1) Air Pollution Control		
1a) Notification to EPD before Work Commencement	If the work is classified as notifiable work such as site formation, reclamation, building demolition, tunnel construction, foundation / superstructure work and roads construction, it should be carried out with prior notification to EPD through central processing of the Buildings Department.	
1b) Dusty Materials	Stockpiles on dump trucks or within site area should be covered by impervious sheeting or sprayed with water regularly during dry weather. The stockpiles shall be handled with great care to avoid dust emission. Stockpiles shall not be stored outside the construction site. It is encouraged to reuse the treated wastewater for dust suppression.	
	Every stock of more than 20 bags of cement shall be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.	
1c) Hoarding along Site Boundaries	Hoarding / Fencing of not less than 2.4m high from ground level shall be provided along the entire length of the site boundary except for a site entrance / exit.	
1d) Roads Paved and / or Sprayed with water	Main haul road (i.e. any road within the site having a vehicle passing rate higher than 4 in any 30 minutes) shall be kept clear of dusty materials; and / or	
	Main haul road shall be sprayed thoroughly with water so as to maintain the entire road surface wet. It is encouraged to reuse the treated wastewater for wheel washing.	
1e) Wheel Washing Facilities	Wheel washing facilities include high pressure water jets, wheel washing bays, tyre wheel machine together with paved road in between the facilities and the exit. It is encouraged to reuse the treated wastewater for wheel washing.	
	Performance assessment criteria / indicators should include traceable records of routine maintenance, availability of water supply and chemical for regular desilting.	
1f) Dust Suppression during pneumatic Drilling or Rock Breaking	Ongoing water spraying and / or application of dust screen / enclosure should be applied during pneumatic percussive piling/rock breaking.	
1g) Dark smoke controlled from plant	Duration black smoke emission, darkness of smoke and the application of exhaust treatment facility (e.g. particulate trap) should be considered in performance assessment.	
1h) Use of Materials containing Volatile Organic Carbon	Use of VOC containing substances shall comply with the legislative requirements. Water-based paint should be used where applicable. Low-VOC content solvent shall be used over high-VOC where applicable.	
1i) Open Burning	Open burning is prohibited.	

Environmental Guidelines for Construction Sites

2) Water Pollution Control		
2a) Valid License for Water Discharge	Valid licenses should be obtained to cover all discharge points if effluent is discharged from site to public drains. Wastewater treatment system such as sedimentation tank should be available for treating the muddy water before discharge. The wastewater treatment system should be properly maintained. The discharge should comply with the discharge requirements in the license and the monitoring records should be kept. Treated wastewater can be reused for dust suppression.	
2b) Measures to direct Effluent to Silt Removal Facilities	Bunds or U-channels should be built along site perimeter / within site area to direct effluent.	
2c) Septic Tanks	Where foul water cannot be directed to foul sewer, septic tanks or chemical toilets should be employed.	# Regulations 6.11
3) Noise Control		
3a) Valid CNP (Construction Noise Permit) for Work during Restricted Hours	Any work to be carried out during 'restricted hours' (means the time between 1900 – 0700 hours and any time on a general holiday, including Sunday) must have a valid CNP. If work is carried out during restricted hours, it should comply with CNP conditions.	
3b) NEL (Noise Emission Label) for Compressors & Hand-held Breakers	Valid NEL is required for using air compressors ($\geq 500\text{kPa}$) or hand-held breakers (including pneumatic, hydraulic and electric) ($>10\text{kg}$). NEL shall be displayed onto the equipment.	
3c) Engine covers kept close during operation	During operation, the engine covers of generators, air compressors and / or other powered mechanical equipment (PME) should be closed.	
3d) Quality Powered Mechanical Equipment (QPME)	QPME is equipment that is recognized by EPD as notably quieter, more environmentally friendly and efficient. It is encouraged to use QPME (with QPME label) as practicable to reduce noise impact during the construction work.	
3e) Scheduling of noisy works	Noisy works should be scheduled as practicable and possible to minimize the impact to nearby noise sensitive receivers such as classrooms, offices, residences. Noisy works during examination should be avoided. It is encouraged to use noise barrier to reduce noise impact where applicable.	

Environmental Guidelines for Construction Sites

4) Storage of Chemicals and Dangerous Goods		
4a) Chemicals and Chemical Waste Storage	All chemicals and chemical wastes shall be properly stored, handled and labeled with details of the chemical composition and safety handling information. Chemical wastes shall be stored separately with clear signage indicating 'Chemical Waste' and to be collected by licensed chemical waste collector for proper disposal. The trip ticket records of chemical waste disposal should be maintained to demonstrate chemical wastes are properly disposed. Incompatible chemicals and chemical wastes shall not be stored together. Contractors shall be responsible to arrange the removal of the chemical wastes generated from construction site.	
4b) Storage of DG	The storage of DGs should comply with license conditions (include types and quantities) with appropriate storage facilities.	
4c) Measures to control Chemicals Spillage	The containers of chemicals / chemical wastes / diesel should be placed in an area with impermeable layer and bunded (or with drip tray) to prevent spillage and leaching. Spillage measures such as spill kits, sand bags or saw dust should be provided for spillage during chemical handling such as oil refilling. Spilled chemicals shall be treated as chemical waste.	
5) Waste Management		
5a) Construction & Demolition Wastes (Inert and Non-inert)	Construction and demolition wastes should be separated from general refuse and chemical wastes by on-site sorting. Inert waste comprises of soil, concrete, reinforced concrete, asphalt, brick / sand, cement plaster / mortar, aggregate, inert building debris and rock / rubble. Non-inert waste comprises of vegetation, timber, bamboo and etc. Inert waste should be disposed at public fills whereas non-inert waste should be disposed to landfills by licensed waste collector. Waste segregation should be conducted on site and recycling should be conducted properly to recover useful items, such as paper, metals and plastics. Contractors shall be responsible to arrange the proper removal of the C&D wastes generated from construction site. Contractor should reuse the construction and demolition waste as practicable.	# Regulations 2.3
5b) General Refuse	General refuse should be removed on a regular basis so as to avoid potential hazardous, hygiene problem and visual impact from wastes build up on site. Contractor shall keep the construction site tidy and free from littering.	# Regulations 2.3
5c) Asbestos Wastes	Asbestos waste generated from demolition works should be handled and disposed of by EPD registered professionals. The relevant records should be maintained to demonstrate compliance and handled by registered professionals.	# Regulations 2.3

Environmental Guidelines for Construction Sites

6) Protection of Flora, Fauna and Historical Heritage		
6a) Disturbance to Plants	Do not fell any plant in the CUHK campus without permission. The Contractor shall comply with instruction given by CDO / EMO and / or consultants on trimming and transplanting of plants.	# Regulations 2.5
6b) Disturbance to Animals	When any wild animal is found, report to CDO / EMO / USO immediately. If working nearby the living area of the wild animals, avoid using heavy equipment. Do not attempt to catch the animals before arrival of qualified personnel to capture and remove. Do not resume works until approval is obtained from the CDO / EMO and / or consultants.	# Regulations 2.5
6c) Historical Heritage	If any historical heritage is found, report to CDO / EMO / USO immediately. Minimize disturbance to the area concerned. Do not resume works until approval is obtained from CDO / EMO and / or consultants.	# Regulations 2.5
7) Resources Conservation		
7a) Equipment Shut off	All equipment should be shut off when they are not in use.	
7b) Water Conservation	Water usage should be conserved as far as possible and water leakage shall be avoided. Recycling of treated water is encouraged for non-potable uses.	
7c) Waste Minimization	Contractor should adopt the waste management hierarchy (Reduce > Reuse > Recycle > Disposal) as possible, and to reduce wastage of resources through good planning and scheduling of works. Materials should be reused on site as practicable.	

Note:

Refer to the latest version of Regulations for Contractors Working Within the University Campus

Major Local Environmental Legislations include but not limit to the followings :

- Air Pollution Control Ordinance (Cap.311)
- Noise Control Ordinance (Cap.400)
- Water Pollution Control Ordinance (Cap.358)
- Waste Disposal Ordinance (Cap. 354)
- Hazardous Chemical Control Ordinance (Cap. 595)
- Ozone Protection Layer Ordinance (Cap. 403)
- Dumping at Sea Ordinance (Cap. 466)
- Environmental Impact Assessment Ordinance (Cap. 499)
- Buildings Energy Efficiency Ordinance (Cap. 610)
- Wild Animals Protection Ordinance (Cap. 170)
- Sewage Services Ordinance (Cap. 463)
- Motor Vehicle Idling (Fixed Penalty) Ordinance (Cap. 611)
- Factories and Industrial Undertakings Ordinance (Cap. 59)