1. Introduction

This Reference Guide describes good practices and ways for tackling common environmental problems related to property management.

The practices suggested in this Guide are by no means exhaustive. If there is any uncertainty concerning the causes and solutions for the environmental problems encountered, please seek advice from Environmental Protection Department as well as experienced consultants or contractors.

2. Common Activities / Facilities Causing Environmental Problems

2.1 Renovation

- Property management offices can take positive steps to minimise renovation related pollution problems by issuing guidance notes to residents/contractors before the start of renovation work. In case of complaints, they can also take a mediation role to resolve problems between relevant parties before reporting the case to the relevant authority for enforcement action.

a. Noise arising from renovation

- Noise from renovation is controlled under the Noise Control Ordinance. Both the Police and Environmental Protection Department enforce the provision.
- Unless a Construction Noise Permit has been obtained from Environmental Protection Department
  - ✓ should not use Powered Mechanical Equipment or perform Prescribed Construction Work during restricted hours *(7 p.m. to 7 a.m. on weekdays and any time on holidays including Sundays)*
- Prescribed Construction Work includes:
  - erection or dismantling of formwork or scaffolding ;
  - handling of wood, wooden boards, steel bars, rubbles or scaffolding materials ; and
  - hammering.
- To minimise the noise nuisance affecting neighbours
  - ✓ avoid carrying out noisy work before 9 a.m.
- Penalty for working during restricted hours without a permit or failure to comply with permit conditions
  - *Maximum fine HK$ 100,000 for first offence.*

b. *Air pollution arising from renovation*

- Air nuisance arising from cement, sand, debris or other dusty materials resulting from renovation is controlled under the Air Pollution Control Ordinance or the Air Pollution Control (Construction Dust) Regulation.
- Good air pollution preventive practices include :
  - ✓ cement, sand, debris or other dusty materials stored outside the site should be covered up or wetted in accordance with the requirement of the regulation
  - ✓ spray and hand painting must be done with good ventilation but with main door closed to avoid the solvent odours from affecting people in the neighbourhood

- Penalty for failure to comply with the requirement under the Air Pollution Control Ordinance
  - *Maximum fine HK$ 100,000 for first offence.*
- Penalty for failure to comply with the requirement under the Air Pollution Control (Construction Dust) Regulation
  - *Maximum fine HK$ 25,000.*

c. *Construction waste arising from renovation*

- Disposal of waste in public place or government land without lawful authority is an offence under the Waste Disposal Ordinance.
- Separation of construction waste for recycling and proper disposal
  - ✓ recyclable materials (i.e. paper, packaging materials, metals and plastics, etc.) : to be sorted out for recycling
  - ✓ inert materials (i.e. soil, concrete, bricks, etc.) : to be disposed of at public filling areas
  - ✓ non-inert materials (i.e. wood, general rubbish, etc.) :
    - to be disposed of at landfills for large quantity
    - to be disposed of at refuse collection points for small quantity
- Penalty for illegal dumping of waste
  - *Maximum fine HK$200,000 and imprisonment for 6 months for first offence.*

d. *Solvent & paint arising from renovation*

- Solvent and wet solvent-based paint are classifiable as chemical waste and subject to the control of the Waste Disposal Ordinance. They should be collected by a licensed chemical waste collector.
- Residual paint and solvent should be reused as far as possible.
- Discharge of wet water-based paint into storm drain is an offence under the Water Pollution Control Ordinance.
- Do not discharge solvent or paint into sewer
  - ✓ small quantity of waste solvent or paint from household could be disposed of with household waste
  - ✓ for the disposal of large quantity of waste solvent or solvent-based paint, the contractor should register as Chemical Waste Producer with Environmental Protection Department and employ licensed Chemical Waste Collector to arrange for proper disposal
  - ✓ limited quantity of water-based/emulsion paint (non-chemical waste in liquid form) may be disposed of at landfill with prior authorization from Facilities Management Group of Environmental Protection Department in the Admission Ticket System and prior agreement with the landfill operator will need to be sought
  - ✓ dry/cured paint (non-chemical waste) can be disposed of as normal refuse
- Penalty for illegal discharge of effluent
  - *Maximum fine HK$200,000 and imprisonment for 6 months for first offence.*
- Penalty for failure of delivering chemical waste to a reception point
  - *Maximum fine HK$200,000 and imprisonment for 6 months.*

2.2 Sewage Treatment Plant / Grease Trap

a. Discharge from sewage treatment plants

- Discharge from sewage treatment plants (STPs) is controlled under the Water Pollution Control Ordinance.
- Should apply for licence from Environmental Protection Department before discharging effluent from sewage treatment plant.
- Good practices for operating and maintaining sewage treatment plant include :
  - ✓ develop an effective audit system to monitor the performance of maintenance contractor/operator of the STP, for example, employ an independent contractor to check the effluent standard
  - ✓ maintain an updated operation & maintenance manual by which mitigation measures could be carried out quickly during emergency
  - ✓ develop good housekeeping practices such as regular hosing down and sweeping the walkways, maintaining adequate lighting and ventilation, etc.
- Penalty for discharge of effluent containing polluting matter
  - *Maximum fine HK$ 200,000 and imprisonment for 6 months for first offence.*
- Penalty for failure to comply with provision of licence
  - *Maximum fine HK$ 200,000 and imprisonment for 6 months.*

b. *Discharge from grease traps*

- Discharge from communal underground grease traps at commercial shopping centres is controlled under the Water Pollution Control Ordinance.
- The property management company who is responsible for the maintenance of the communal grease trap should apply for a discharge licence from the Environmental Protection Department.
- Good practices for maintaining the grease trap include:
  - ✓ employ registered grease trap waste collector to clean the grease trap regularly
  - ✓ retain the cleaning records in the past 6 months for the inspection of Environmental Protection Department
- Penalty for discharge of effluent containing polluting matter
  - *Maximum fine HK$ 200,000 and imprisonment for 6 months for first offence.*
- Penalty for failure to comply with licence conditions
  - *Maximum fine HK$ 200,000 and imprisonment for 6 months.*

c. *Odour from sewage treatment plants and grease traps*

- STPs and grease traps for restaurants often emit unpleasant odour which result in odour nuisance to nearby residents.
- To avoid causing odour nuisance,
  - ✓ these facilities should not be located in the vicinity of lift lobbies or any fresh air intake of the air conditioning system
  - ✓ schedule for cleaning STPs and grease traps should be drawn up such that the chance of creating an odour nuisance to people in the vicinity is reduced to the minimum

2.3 Expedient Connection of Drainage

- Discharge of sewage into storm drain is an offence under the Water Pollution Control Ordinance.
- Mis-connection of sewer to storm drain is a common problem in old buildings. This causes pollution in waterways, typhoon shelters and the sea.
- Check existing connections and rectify any mis-connections
  - ✓ differentiate storm drains from foul sewers by means of manhole cover pattern, location and hygiene condition, etc.
  - ✓ engage a competent contractor to carry out sewer work
  - ✓ maintain a drainage record in the management office
  - ✓ use dye tracing tests to check the sewer routing and ensure proper connection
- Penalty for discharge of sewage into storm drain

  - Maximum fine HK$ 200,000 and imprisonment for 6 months for first offence.

2.4 Building Services

- Noise and air pollution caused by building services facilities are controlled by means of Abatement Notices. The Notice may be served on the owners, occupiers or person in charge of the premises from where the noise/air pollution emanates. The Notice will require the responsible persons to bring the noise emission or air pollution into a state of compliance by a specified date. Any non-compliance found thereafter is an offence.
- Penalty for failure to comply with abatement notice requirements
  - *Maximum fine HK$ 100,000 for first offence.*
- Some common noise and air pollution nuisance associated facilities are :

a. *Pump room and associated pipings*

- Vibration from pumps and pipings may cause noise to be transmitted through the building structure.
  - ✓ proper isolation helps to minimise the structure-borne noise
  - ✓ noise caused by water rushing into the water tank may be minimised by installing appropriate pressure reducing valve
  - ✓ regular preventive maintenance can avoid noise caused by defective parts
  - ✓ employ acoustic consultant/contractor to handle complicated case

b. *Lift plant room*

- Excessive noise may be emanated from defective parts such as bearings.
  - ✓ regular preventive maintenance can avoid noise caused by defective parts
- Machine vibration may cause noise to be transmitted through the building structure.
  - ✓ proper isolation helps to minimise the structure-borne noise
  - ✓ employ acoustic consultant / contractor to handle complicated case

c. *Ventilating systems (chillers, water cooling towers, exhaust fans, etc.)*
   - ✓ avoid placing the plant close to residential units in order to minimise noise disturbance
   - ✓ preventive maintenance to avoid noise from defective parts
   - ✓ air-borne noise may be abated by means of noise barriers, enclosures and/or silencers
   - ✓ structural-borne noise may be abated by proper vibration isolation
   - ✓ employ acoustic consultant/contractor to handle complicated case

d. *Emergency generators*
   - ■ Noise from the regular testing of emergency generators may cause noise disturbance to nearby residents.
     - ✓ proper noise abatement measures should be applied to the generators
   - ■ Under the Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations, prior approval from the Director of Environmental Protection must be obtained before installing any emergency generators with nominal fuel consumption exceeding 25 litres per hour of liquid fuel or 1,150 megajoules per hour of gaseous fuel.
     - ✓ regular testing of generators should be conducted in accordance with the testing hours stated in the approval plan in order to minimise the chance of creating air pollution nuisance to people in the vicinity

   - ■ Penalty for failure to comply with the Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations
     - Maximum fine HK$50,000.

e. *Refuse collection/goods loading and unloading*
   - ✓ these activities should not be carried out in late evening or early morning hours to avoid causing noise nuisance

f. Refuse chutes

- Excessive impact noise may be generated when refuse from high floors bumps on bends of the refuse chute.
  - ✓ noise may be reduced by fixing a rubber pad or similar material at the bends

g. Carparks

- In order to avoid any air pollution problem, adequate ventilation should be provided inside the carpark and the exhaust outlets should not be located close to any openable windows or fresh air intakes of the building.

2.5 Neighbourhood Noise

- Neighbourhood noise is noise from domestic or public places, under the control of the Noise Control Ordinance and is dealt with by the Police on a subjective nuisance basis.
- Under the ordinance, during the night time (11 p.m. to 7 a.m.), or at any time on a general holiday, it is an offence to make any neighbourhood noise which causes annoyance to any person.
- Under the ordinance, at any time of the day, neighbourhood noise from the following is controlled :
  - playing any musical or other instrument, including record or cassette player or radio or television;
  - using any loudspeaker, megaphone, or other device or instrument for magnifying sound;
  - playing any game or engaging in any pastime;
  - carrying on a trade or business;
  - operating any air-conditioning or ventilating system;
  - keeping any animal or bird that makes any noise;
  - making any noise in or near any public place, for the purpose of attracting attention to goods, wares or trade.
- As neighbourhood noise problems are very often of a transient nature, property management offices should give advice/warning as appropriate to stop the noise at the first instance whenever practicable.
- Penalty for the offence of neighbourhood noise nuisance
  - Maximum fine HK$ 10,000.

2.6 Noise from Intruder Alarm Systems

- Noise from intruder alarm systems is controlled under the Noise Control Ordinance and is dealt with by the Police.
- To avoid causing noise nuisance,
  - ✓ intruder alarm system installed in any premises shall not sound more than 15 minutes after being triggered
  - ✓ intruder alarm system installed in any vehicle shall not sound more than 5 minutes after being triggered
  - ✓ the vehicle alarms shall not sound unless the vehicle is physically being tampered with
- Penalty for the offence of noise nuisance caused by intruder alarm systems

  - Maximum fine HK$ 10,000.

2.7 Noise from Bars, Discos, Karaokes and Places for Entertainment, etc.

- Excessive music noise from this type of venues or parts of buildings which are not public places, commonly known as "industrial/commercial noise", is controlled by means of "Abatement Notice" under the Noise Control Ordinance.
- The Notice may be served on the owners, occupiers or person in charge of the premises from where the excessive noise emanates. The Notice will require the responsible persons to bring the noise emission into a state of compliance by a specified date. Any non-compliance found thereafter is an offence.
- Noise nuisance due to raised voices or rowdy behaviour of the patrons in public places or the associated parking facilities outside this type of venues, is a kind of "neighbourhood noise". The control mechanism of "neighbourhood noise" has been stated in Section 2.5 of this Reference Guide.
- The adverse effects of noise from this type of venues can be avoided or reduced through the implementation of the following measures:
  - ✓ the venue should preferably be sited within building structure, such as in shopping mall, and the main door of the venue should preferably open to the interior of the building or screened from residential dwellings
  - ✓ the associated parking facilities, if any, should preferably be under cover and located inside a commercial/industrial building or separated by screening structures from residential dwellings
  - ✓ for a venue with the main door or windows opened to the exterior of the building, it is important that double-leaf noise insulation doors and double-glazed noise insulation windows should be installed and the doors and windows should be closed at all times when in business to avoid noise leakage to outside
  - ✓ specific guidance on good environmental practices, such as strengthening the sound insulation and anti-vibration treatments, and reducing the music volume during sensitive hours, should be given to the venue operators for compliance during the design and operational stages
- Penalty for failure to comply with abatement notice requirements
  - *Maximum fine HK$100,000 for first offence.*

2.8 Nuisance arising from Cooking Fumes Emitting from Restaurants and Food Business in Shopping Malls

- The discharge of cooking fumes is under the control of the Air Pollution Control Ordinance.
- If the cooking fumes discharged cause air pollution to people in the neighbourhood, Director of Environmental Protection will issue an Air Pollution Abatement Notice to the occupier of the premises requiring rectification.
- To avoid any problems caused by cooking fumes:
  - ✓ proper control equipment such as hydrovents, wet scrubbers and electrostatic precipitators must be provided where appropriate and properly maintained and operated at all times
  - ✓ location of the exhaust outlets must be properly selected such that the emissions can be effectively dispersed without causing any air pollution problem to people in the vicinity.
- Penalty for failing to comply with the abatement notice requirements
  - *Maximum fine HK$ 100,000 for first offence.*