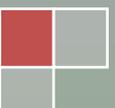


Environmental Guideline on Inland Hotel



Department of Environment

The purpose of this environmental guideline is to provide guidance to prospective developers to operate their inland hotel on the basis of self-adherence and to assist Local Authorities at the Building and Land Use Permit stage.



1.0 Background

The Tourism Authority Act 2006 defines "hotel" as any premises where - (a) lodging and sleeping facilities; (b) ancillary services and amenities; and (c) breakfast, meals and refreshments at reasonable hours, are provided against payment.

Hotels can be either coastal or inland. This environmental guideline pertains to inland hotels, located more than 1 km from High Water Mark. In the recent years, there has been a growing interest to construct inland hotels to cater for affordable stays for business travelers and tourists. The inland hotels help to reduce pressures being exerted in the coastal zone.

Inland hotels offer same services as coastal hotels, except that they do not have a coastal frontage and do not provide for amenities such as jetties, sports and other activities at sea. The facilities available include restaurants, bar lounges, conference and banqueting rooms, sports and fitness centre, spa and swimming pool.

Hotels also have particular requirements in terms of potable water, electricity, fire and safety system and air conditioning system.

The construction and operation of an inland hotel may be associated with several environmental issues, namely:-

- Site selection
- Solid wastes
- Noise
- Wastewater
- Stack emissions
- Used cooking oil (as applicable)
- Vehicular movement
- Poor housekeeping – rodents, birds, flies, stray dogs and sanitary nuisances
- Odour
- Energy and water consumption

2.0 Objectives of the guideline

This guideline is meant to ensure that prospective developers:-

- adopt appropriate mitigating measures to safeguard the environment.
- comply with provisions of relevant laws/ regulations/standards.
- adopt eco-friendly practices to optimize use of resources.

3.0 Applicable Legislation

The construction and operation of an inland hotel does not warrant a Preliminary Environmental Report (PER) Approval or an Environmental Impact Assessment (EIA) Licence. It requires, amongst others, a Building and Land Use Permit under the Local Government Act 2011.

Note:-

1. *The operation of an inland hotel requires approval from Ministry of Tourism (The Application Guide for the Issue of Letter of Approval for project with respect to Accommodation sector is available on the Ministry of Tourism's website).*
2. *The development must comply with relevant provisions of the Tourism Authority Act 2006, Local Government Act 2011, the Town and Country Planning Act 1954, the Building Control Act 2012, the Planning and Development Act 2004, the Food Act 1998, Mauritius Fire and Rescue Service Act 2013, as subsequently amended and all applicable guidelines and regulations.*

3. *According to Part B of the Fifth Schedule of the Environment Protection Act (EPA), “Hotel or Integrated Resort Scheme, including extension, with first boundary within 1 kilometre of high water mark” warrants an Environmental Impact Assessment (EIA) Licence.*
4. *Depending on the scale of the development, an inland hotel may be subject to an Environmental Impact Assessment Report or Preliminary Environmental Report to the proponent as per Section 17 of the EPA under “Non-listed activity”.*

4.0 Location and Siting

- (i) New inland hotels should preferably be located in commercial and mixed use areas.
- (ii) The existing development context of the site should be compatible with the activity.
- (iii) At the design stage of new inland hotels, consideration to be given to the site lay-out, with a view to avoiding disturbances to the surrounding environment. In particular, attention should be paid to the location of entrances, exits, car parks, access roads and amenities.
- (iv) The site should not be located within any Environmentally Sensitive Area (ESA) and its prescribed buffer zone as per ESA Study 2009 such as wetland, steep slope and in areas that are likely to be affected by hazards such as inland flooding, landslide and storm surges, amongst others.
- (v) On site wastewater disposal facilities shall be located not less than 30 m from any water course as per Rivers and Canals Act 1863.
- (vi) Existing natural drains and watercourses on or in the vicinity of the site shall not be tampered with.

5.0 Mitigation of Environmental Impacts

5.1 Solid waste management

Activities within an inland hotel generate significant volumes of solid wastes, including:-

- Wastes from kitchen and restaurants including food wastes, used cooking oil, organic wastes
- Non-organic wastes such as paper, carton boxes, packaging wastes, disposable cutlery, beverage cans, PET bottles, ink/toner cartridges, newspapers, magazines
- Green wastes from landscaped areas
- Obsolete furniture, electric wires, cables (during refurbishment works)

Mitigating measures include:-

- Domestic solid wastes to be regularly collected in bins or waste handling receptacles and disposed of to the satisfaction of the Local Authority.
- Where the collection of the solid wastes is not on a daily basis, the food wastes should be stored under chilled conditions until removal for disposal to the satisfaction of the Ministry of Health and Quality of Life.
- Promotion of waste reduction, reuse and recycling, including composting of organic wastes.
- Preventive maintenance programme for sale and reuse of reusable materials such as obsolete furniture, electronic and electric appliances, towels, bed cloths and curtains.
- No waste of any type to be disposed of in any watercourse including drains, canals and the surrounding environment.

5.2 Noise abatement

Noise from inland hotels may arise from:-

- Electric motors and other equipment
- Loud music and gatherings

- Vehicular movement, including during unloading, loading and parking

Necessary precautions shall be taken to ensure noise emitted from the hotel is within permissible limits as per the Environmental Standards for Noise Regulations under the EPA which stipulates:

Industrial Noise		Neighborhood Noise	
Time	Noise exposure limits	Time	Noise exposure limits
07.00-21.00 hrs.	60 dB (A) L_{eq}	07.00-18.00 hrs.	60 dB (A) L_{eq}
21.00-07.00 hrs.	55 dB (A) L_{eq}	18.00-21.00 hrs.	55 dB (A) L_{eq}
		21.00-07.00 hrs.	50 dB (A) L_{eq}
A tonal character adjustment of +5 dB (A) should be applied to the measured value where the noise has a definite continuous note such as a whine or hiss.			

Mitigating measures include:-

- Provision of appropriate noise attenuating materials / structures to abate noise generated from equipment such as electric motors, pumps, compressors, generators
- No installation of loudspeaker/ amplifier /woofer/ noise generating equipment outside the building (within the open area)
- No noisy activities such as dancing , bar activities , events carried out outside the hotel building, in case it would represent a nuisance to the surrounding environment
- Soundproofing of the rooms and flooring (e.g. forbo used as flooring)

Noise monitoring using calibrated noise meter should be carried out on a regular basis.

5.3 Wastewater management

Domestic wastewater is generated by the hotel staff and occupants; from operations such as cleaning of rooms and premises and from the kitchens.

Mitigating measures include:-

- Provision of appropriate domestic wastewater treatment and disposal facility to the satisfaction of the Wastewater Management Authority.
- Installation of grease traps or oil water separators for removal of floatable solids.

Note:- *Maintenance of the grease trap or oil water separator is to be carried out by the owner / promoter.*

- Any wastewater treatment plant to be fully enclosed and equipped with an odour control equipment. Trees to be planted all around the treatment plant premises. The operation of the wastewater treatment plant shall not give rise to noise and odour nuisances.

5.4 Stack emissions

Gaseous emissions from boiler stacks shall be as per prescribed standards under the **Environment Protection (Standards for Air) Regulations 1998**.

Mitigation measures include:

- Use of cleaner fuels or technologies. Renewable energy source to be preferred.
- Use of air filters and stack height to be consistent with good engineering practices.

5.5 Used Cooking Oil (as applicable)

Inland hotels may generate significant volumes of used cooking oil which has to be properly managed.

Used oil shall be collected, stored and disposed of as per the provisions of the Environment Protection (Collection, storage, treatment, use and disposal of waste oil) Regulations 2006.

Mitigating measures include:-

- Used oil should not be disposed of through dumping and discharge, burial, open air burning or placing in garbage bins.
- Used cooking oil should be properly stored in sealed containers/tins before eventual recycling by registered recyclers.

5.6 Vehicular movement

The environment and amenity of the area should not be compromised through traffic. Necessary precautionary measures should be taken to avoid such nuisances.

Mitigating measures include:-

- Existing and proposed road accesses should be designed to adequately serve the traffic generated by the inland hotel.
- Provision should be made for adequate parking, loading and unloading facilities on site.
- Access for Disabled Persons - The improvement of access and provision of facilities to ease the passage of mobility impaired people should be considered as an integral part of the design.

5.7 Poor housekeeping – rodents, birds, flies, stray dogs and sanitary nuisances

Poor housekeeping of inland hotels can attract rodents, birds, flies, stray dogs and cause sanitary nuisances. The premises shall be kept clean and tidy at all times with good housekeeping and proper ventilation.

Mitigating measures include:-

- The building and facilities of the hotel shall satisfy the sanitary requirements.
- Provision of a permanent cleaning and disinfecting program so as to ensure all areas and equipment are appropriately cleaned and disinfected.
- Installation of bait stations/ traps to control pests and rodents.
- Installation of equipment such as eagle eye to repel birds.
- The swimming pool water to be recirculated , chlorinated and filtered.

5.8 Odour

Odour may be released from cooking as well as from inappropriate storage and disposal of wastes. Necessary abatement measures shall be taken to avoid such nuisances.

- Provision of extractors and hoods to reduce odours from frying and other cooking operations.
- Odour controlling equipment such as scrubber, activated carbon filter to be incorporated in the hood system to prevent odour nuisances.
- Proper management of wastes

5.9 Other mitigating measures

- Necessary precautions should be taken to avoid disturbance to the neighbourhood by way of odour, dust, smoke, noise or traffic during construction and operation phase.
- Safe storage of materials on site and stored materials not unduly visible or intrusive in the street scene.
- Provision for a proper drainage scheme for evacuation of stormwater to avoid any risks of flooding/water-logging of site and adjoining areas to the satisfaction of the Local Authority.

6.0 Eco-friendly Measures and Sustainability

The design, construction and maintenance of buildings have a tremendous impact on energy consumption, water consumption, productivity and health of people and nature. Best environment friendly practices and initiatives need to be adopted during the construction and operation of inland hotels, such as:-

- Adoption of sustainable and climate-resilient building designs
- Use of a Building Management System – software to effectively manage energy, water and other resources.
- Cleaner fuel; renewable energy source (solar water heaters and photovoltaic cells); energy efficient appliances (fridges, ovens, Air Conditioners); energy-saving devices (LED lamps); sensor lights
- Ozone and climate friendly refrigerants
- Waste heat recovery from air conditioning systems for production of hot water
- Use of environmentally friendly products
- Waste segregation for recycling and composting
- Rain water harvesting for washing of premises and irrigation
- Use of water aerators to minimize water use
- Use of treated effluents for irrigation of landscaped areas to reduce impact on water demand
- The management could also promote good environmental practices such as minimal laundering of towels, dual flush toilets, sensor automatic switch off lights, eco-friendly packaging and use of water dispenser.

The staff should be educated on the issue of green best practices.

Note:

- a. Relevant organizations need be consulted with regard to Food Act, hygienic and sanitary issues, occupational safety, fire, traffic implications, amongst others prior to embarking on the project to ensure compliance with their respective laws/regulations/standards.
- b. Clearance from Forestry Service is required:-
 - For any infrastructural development on road, mountain and river reserves (both private and state lands)
 - For felling/ lopping of trees on road, mountain, rivers reserves, public compounds and state lands
- c. Non-compliance with environmental laws namely standards for air and noise is an offence under the EPA.

Copies of this guideline are available at the Department of Environment and on the website of the Ministry at <http://environment.govmu.org>; the government's portal at <http://www.govmu.org>, including the websites of Local Authorities.