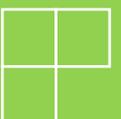


Environmental Guideline on Demolition of buildings



Department of Environment

The purpose of this environmental guideline is to provide guidance to promoters for demolition of buildings on the basis of self-adherence and to assist Local Authorities at the Building and Land Use Permit stage.



1.0 Background

Demolition is the process whereby an existing building is destroyed partly or completely and is usually carried out on a temporary/short basis. Demolition is carried out either manually or mechanically using large hydraulic equipment such as elevated work platforms, hammers, cranes, excavators or bulldozers. Larger buildings however may require the use of a wrecking ball or are destroyed by implosion. Newer methods may use rotational hydraulic shears and silenced rock-breakers attached to excavators to cut or break through wood, steel and concrete.

Demolition of buildings is associated with environmental concerns which relate to:

- Site location
- Noise and vibration
- Dust nuisance
- Wastes
 - Solid wastes, including waste debris
 - Hazardous wastes
- Energy and water consumption

2.0 Objectives of the guideline

This guideline is meant to ensure that prospective developers:

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

3.0 Applicable Legislation

Demolition of buildings 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) *Any application for the demolition of buildings shall also comply with relevant provisions under the Local Government Act 2011, the Building & Control Act 2012, the Mauritius Fire and Rescue Service Act 2013 and all applicable guidelines & regulations.*
- 2) *According to Section 117(2) of the Local Government Act 2011, any person who intends to commence the construction or demolition of a building ... shall apply to its relevant Local Authority for an Outline Planning Permission or a Building & Land Use Permit.*
- 3) *According to the Building Control Act 2012, “building includes a permanent or temporary structure erected or made on, in or under any land and includes the erection, extension or **demolition** of a building”.*

4.0 Site location

- (i) The demolition should be carried out in such a way so as to cause minimum disturbance to the surrounding environment.
- (ii) The demolition process should be in accordance with the requirements and to the satisfaction of all relevant authorities (Local Authorities, Ministries responsible for public infrastructure, labour and health among others).
- (iii) 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 Noise and vibration abatement

Noise and vibration generated from hydraulic breakers and bulldozers among others can induce nuisance to the neighbouring environment. As such, necessary precautions shall be taken to minimize noise and vibration.

Mitigating measures include:

- All demolition works should be carried out during normal working hours as determined by the respective Local Authority.
- Operations should be carried out with minimal noise/vibration disturbance to the surrounding environment.
- Scheduling of several noisy operations concurrently to avoid continuous noise disturbance.

5.2 Dust management

The amount of dust generated will depend on the size of the building/ structure being demolished as well as the method and equipment used during the demolition process.

Mitigating measures include:

- Use of best technology for demolition process.
- Appropriate safety measures such as hoardings and geotextile screens should be installed on site.
- Demolition should be scheduled during periods of low winds to decrease dust emissions.
- Water spraying of the site should be carried out to reduce dust nuisance.
- Demolition materials and stockpiles should be covered or sprinkled.

5.3 Waste management

5.3.1 Solid waste management

Demolition of buildings generates various types of wastes such as concrete, wood, iron bars, metals, bricks, glass, plastics and building components (doors, windows, electric copper wires and pipes amongst others). Appropriate measures should be taken to reduce environmental nuisances to the neighbourhood.

Mitigating measures include:

- Demolition wastes such as concrete and bricks to be reused as backfill material or be sent for reprocessing at stone crushing plants.
- Building components (doors, windows) and wood should be reused or recycled as far as possible.
- All recyclable wastes, including iron bars, metals and plastics to be properly collected for eventual recycling.
- Demolition wastes should not be dumped on any bareland, premises or in any watercourse including drains and canals.
- Necessary precautions should be taken to ensure that stockpiled demolition debris do not present an eyesore and not be unduly visible or intrusive in the street scene.

5.3.2 Hazardous waste management

Hazardous wastes such as asbestos may be generated during the dismantling of a building and should be properly disposed of.

Mitigating measures include:

- All hazardous wastes shall be stored, labeled and transported as per the provisions of the **Environment Protection (Standards for hazardous wastes) Regulations 2001**.

- Hazardous wastes shall be disposed of at the Hazardous Waste Interim Storage Facility at La Chaumiere.
- Demolition of buildings contaminated with asbestos should be carried out according to established procedures as laid by the respective authorities namely the Ministries responsible for Housing & Lands, Labour and the Solid Waste Management Division, as applicable.
- Asbestos debris should be stored in securely tied/sealed and labelled double lined plastic sacks, prior to disposal at the Special Cell set up at Mare Chicose.

5.4 Other mitigating measures

- Necessary precautions should be taken to avoid disturbance to the neighbourhood by way of dust, visual impact, odour, noise or traffic.
- The demolition works should be undertaken under the supervision of a qualified personnel.
- Workers must be provided with suitable respiratory protective equipment.
- No wastewater to be discharged either on the surface of the ground or into rivers/canals/lakes/sea.
- Provision of temporary appropriate on-site wastewater disposal facility for disposal of wastewater generated by workers on-site.

5.5 Eco-friendly Measures and Sustainability

Best environment friendly practices and initiatives need to be adopted, such as adoption of sustainable deconstruction¹ techniques instead of demolition ones.

Note:

- a. Relevant organizations need to be consulted with regard to occupational health and safety, re-use/disposal of waste debris, amongst others, prior to embarking on the demolition to ensure compliance with their respective laws/regulations/standards.

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.

¹ Deconstruction is the process of carefully dismantling buildings to recover components (doors, windows, pipes etc.) for reuse and recycling.