



MINISTRY OF ENVIRONMENT AND NDU

ENVIRONMENTAL GUIDELINE No. 3

COLD ROOMS AND REFRIGERATION PLANTS

1.0 Purpose of guideline

This environmental guideline for cold rooms and refrigeration plants has been prepared by the Ministry of Environment & NDU to ensure that all environmental issues are duly taken into consideration by stakeholders.

2.0 Nature of development

- Cold rooms and refrigeration plants serve to store and preserve fruits, flowers and vegetables, dairy products, meat and seafoods.
- Equipment used are namely compressors, evaporators, transformers, condensers and generators.
- Cold rooms and refrigeration plants also usually include preparation areas for labeling and packaging as well as units for food processing.

3.0 Potential impacts

The major environmental issues associated with cold rooms and refrigeration plants are noise, solid waste and air pollution. The different aspects, impacts and nuisances related to such activities are listed below:

Activity	Aspects	Impacts/ Nuisances
Construction phase		
Site preparation / construction of buildings (where applicable)	- Generation of excavated soil , debris and construction wastes - Use of heavy machinery	-Dumping into barelands, water bodies and drains -Dust, noise and mud -Visual impacts
Operation phase		
Refrigeration process	- Type and volume of refrigerant - Use of electric motors (e.g compressors , generators)	- Impacts on air quality and atmosphere (ozone depletion) - Health hazards - Risks of spillage - Fire hazards - Noise - Air emissions
Storage , processing	-Generation and	- Odour

Ministry of Environment and NDU
Environmental Guideline No. 3

and packaging of foodstuffs	accumulation of putrefied and damaged foodstuffs and other solid wastes -Poor housekeeping	- Flies / pests/ rodents - Land and water pollution
Washing of cold room , floors and equipment	-Wastewater generation	-Risks of pollution of water courses
Distribution or on-site sale	- Inadequate parking facilities - Accessibility	-Traffic implications

4.0 Siting of activity

Case to case basis

5.0 Environmental Conditions

The major environmental issues relate to **noise, air pollution, solid wastes** and the following conditions shall be observed:

- (i) All electric motors such as stand-by generator and air-compressors shall be housed in soundproof enclosures to keep noise level within permissible limits as per the Environment Protection (Environmental Standards for Noise) Regulations 1997. The noise exposure limits as per the above regulation are as follows:

Industrial noise		Neighbourhood noise	
7:00 – 21:00	60*dB(A) Leq	7:00 – 18:00	60 dB(A) Leq
21:00 – 7:00	55*dB(A) Leq	18:00 - 21:00	55 dB(A) Leq
		21:00 – 7:00	50 dB(A) Leq

* 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.

- (ii) The refrigerant used and the insulating materials shall be free from ozone depleting substances (ODS) and shall be environment friendly with low global warming potential as approved by the National Ozone Unit of the Ministry of Environment & NDU.
- (iii) Wastewaters shall be collected and disposed of.
- (iv) All solid wastes shall be removed, scraped and swept thoroughly before washing with water. All organic wastes shall be stored in a separate compartment in the cold room prior to collection and disposal.

Ministry of Environment and NDU
Environmental Guideline No. 3

- (v) No nuisance by way of noise dust, odour shall be caused to the public and surrounding environment during site preparation, infrastructural works and during operation of the activity.
- (vi) The Department of Environment of the Ministry of Environment and NDU shall be informed in writing of the dates of commencement of works on site and operation of the activity for monitoring purposes.

6.0 Enforcement

Under Section 13 of the Environment Protection Act 2002, the enforcing agencies for the different environmental medium or pollutants are as follows:

S. No	Environmental media/ pollutant	Enforcing Agency
1	Noise, odour	Ministry of Health and Quality of Life
2	Effluents	Ministry of Public Utilities
3	Solid wastes	Ministry of Local Government
4	Air pollution	Ministry of Environment

The above-mentioned enforcing agencies shall monitor compliance with the conditions falling under their purview.

7.0 Offences

Any person who fails to comply with any regulations/standards referred to in this guideline shall commit an offence and shall:

- (i) on a first conviction, be liable to a fine not exceeding 50, 000 rupees and to imprisonment for a term not exceeding two years.
- (ii) on a second or subsequent conviction, be liable to a fine not exceeding 100,000 rupees and to imprisonment for a term not exceeding 8 years.

For further information, please contact

Information Counter,
Department of Environment,
Ground Floor Ken Lee Tower,
1, St Georges Street
Port-Louis
Tel: 203 6200- 2036210
Website: <http://environment.gov.mu>
Email : menv@mail.gov.mu