

Noise Emission Factsheet

Refrigeration Equipment

Noise from refrigeration equipment can disturb neighbours, disrupt their sleep and interfere with their normal daily activities (listening to the TV, talking on the telephone). If loud enough, it can impact on people's health.

Be a good neighbour

Take the time to talk to neighbours. Find out what concerns they may have and ask them for suggestions about solving any problems. Discuss noise concerns with neighbours before installing equipment that emits noise. In many cases an agreement can be reached that satisfy everyone's needs. Note the dB(A) output of the equipment and discuss ways of mitigating noise emissions with your installer.

The Law

The *Environmental Protection Act 1994 (section 440V)* introduced by the State Government include noise limits for refrigeration equipment. If issues between neighbours cannot be resolved and further complaints are made, Council will have to investigate. If refrigeration equipment exceeds noise limits, Council may issue the owner or operator with a direction notice or an on-the-spot fine.

"Refrigeration equipment" is defined as equipment installed on a fixed location or on in a vehicle, other than a vehicle used or to be used on a railway.

Allowable Noise Limits

If noise from refrigeration equipment exceeds the following levels, when measured at a neighbour's house, the owner or operator may be issued with a direction notice or an on-the-spot fine.

- Between 10.00pm – 7.00am if it makes a noise of more than 3dB(A) above the background level; or
- Between 7.00am – 10.00pm if it makes a noise of more than 5dB(A) above the background level.

A.M.												P.M.											
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
3dB(A)							5dB(A)											3dB(A)					

Below is a practical guide to different decibel levels:

- Quiet room in the house 20-30 dB(A)
- Daytime in a quiet residential street 35-45 dB(A)
- Large busy office 50-60 dB(A)
- Lawn mower from 15 meters away 70 dB(A)

Ways to reduce noise

A range of measures can be used to reduce the noise impact of a refrigeration equipment. These include:

- a) Selecting a quieter air-conditioner
The noise level of refrigeration equipment can vary significantly depending on the type and size of the unit. Units operating on electricity or with an electric option are quieter than engine-driven units and older refrigeration equipment can be particularly noisy. Replacing the refrigeration unit with a quieter model may help solve the problem.
- b) Location
Locate the equipment as far away as possible from neighbours and away from sensitive areas (e.g. bedroom windows). Avoid placing refrigeration equipment near a noise-reflective surface (e.g. alcoves, walls). For truck-mounted units, consider parking the truck at a depot or location away from residential areas.
- a) Maintenance
Lack of maintenance can cause higher noise levels and reduce the effectiveness of refrigeration equipment. Contact the manufacturer or installer for advice
- b) Fences or Barriers
A solid fence can help reduce noise levels. If the fence has any gaps, this method won't be as effective.
- c) Acoustic Enclosures
Enclosing the unit (e.g. in a wooden box with an absorbent lining) can be very effective for fixed units, although it is essential that the unit has adequate ventilation. Contact the manufacturer or installer for advice.
- d) Modifications to the fan or compressor unit
Sometimes modifications can be made to the unit to reduce noise (e.g. a noise-absorbent sock can be fitted to some compressors). Discuss this option with the manufacturer or installer.

For further information please contact:

Environmental Health Services at Mount Isa City Council on 4747 3200