

# Noise Pollution Norms

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## INTRODUCTION

Noise is defined as unwanted sound. Sound which pleases the listeners is music and that which causes pain and annoyance is noise. At times what is music for some can be noise for others.

Most of the machines that have been developed for industrial purposes, for high speed transportation, or to make life more enjoyable, by furnishing additional comfort, reducing the drudgery of everyday living, and speeding up our daily routines to provide additional leisure hours, are accompanied by noise. Noise prevention and control is important as noise affects us in hearing, ability to communicate and behaviour. Undoubtedly, lesser noise can make the environment more friendly and life becomes pleasant.

## SOURCES OF NOISE

Various sources of noise are : industry, road traffic, rail traffic, air traffic, construction and public works, indoor sources (air conditioners, air coolers, radio, television and other home appliances) etc. In Indian conditions, indiscriminate use of public address system and DG sets, has given a new dimension to the noise pollution problem.

## STANDARDS AND GUIDELINES

- The Central Pollution Control Board constituted a Committee on Noise Pollution Control. The Committee recommended noise standards for ambient air and for automobiles, domestic appliances and construction equipments, which were later notified in Environment (Protection) Rules, 1986 as given below:-

Code	Area	Day time	Night time	Category of Area	Limits in dB(A), Leq
A	Industrial area	75	70		
B	Commercial area	65	55		
C	Residential area	55	45		
D	Silence Zone	50	40		

Note: 1. Day time is reckoned in between 6 a.m. and 9 p.m.

2. Night time is reckoned in between 9 p.m. and 6 a.m.

3. Silence zone is referred as areas upto 100 meters around such premises as hospitals, educational institutions and courts. The Silence zones are to be declared by the Competent Authority.

Use of vehicular horns, loudspeakers and bursting of crackers shall be banned in these zones.

4. Mixed categories of areas should be declared as one of the four above mentioned categories by the Competent Authority and the corresponding standards shall apply.

- Noise standards for automobiles, domestic appliances and construction equipments have been notified in Part 'E', Schedule-VI of Environment (Protection) Rules, 1986, as amended on 19th May, 1993, as given in the Tables below.

Category of Vehicle	Noise limit in dB(A)
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(a)Motorcycle,scooters and three wheelers.	80
(b)Passenger Cars	82
(c)Passenger or commercial vehicles upto 4 MT	85
(d)Passenger or commercial vehicles above 4 MT and upto 12 MT	89
(e)Passenger or commercial vehicles exceeding 12 MT	91

Category of Domestic Appliances/ Construction Equipments	Noise limits in dB(A)
(a)Window air conditioners of 1 tonne to 1.5 tonne	68
(b)Air Coolers	60
(c)Refrigerators	46
(d)Diesel Generator for domestic purposes	85 - 90
(e)Compactors(rollers),Front loaders, Concrete mixers,Cranes(movable), Vibrators and Saws	75

The Noise Pollution Control Committee also prescribed code of practice for controlling noise from sources other than industries and automobiles,as given below:

*Code of practice for Controlling Noise from Sources other than Industries and Automobiles*

### **Public Address System**

- License must be obtained by all parties intending to use loudspeakers or public address system for any occasion.
- Public address system and loudspeakers should not be used at night between 9 p.m. to 6 a.m. except in closed premises.
- Loudspeakers should be directed at the audiences and not away from audience (i.e.not towards the neighbourhood).
- Loudspeakers should not be allowed for advertisement and commercial activities.
- The permitted strength of power amplifier should be just adequate to cover the audience,and noise level beyond the boundary limit of the noise source premises should not be increased by more than 5 dB(A) above the ambient noise level.

### **Aircraft Operations**

- Aerodrome should be located away from the city and growth of the city shouldnot be allowed to extend upto the Aerodrome.
- Aeroplanes should take off in direction radially away from the city.
- During boarding and unboarding operations the plane should be sufficiently away from the airport buildings.
- Night-time operations should be minimised.
- During maintenance and repairs of the aeroplane,workers should use ear muffs.
- Portable silencers should be used in the plane intake as well as exhaust during idling period at the airport.

### **Railway Operations**

- Erection of acoustic barrier,reducing speed and avoiding whistling within and along the municipal limits and habitation zones are recommended for adoptionto the extent

possible.

## Construction Activities

- Acoustic barriers should be placed near construction sites.
- The maximum noise levels near the construction site should be limited to 75 dB(A) Leq(5 min.) in industrial areas and to 65 dB(A) Leq(5 min.) in other areas.
- There should be fencing around the construction site to prevent people coming near the site.
- Materials need not be stockpiled and unused equipment to be placed between noisy operating equipments and other areas.
- Constructing temporary earth bund around the site using soil etc, which normally is hauled away from the construction site.

## Burning of Crackers

- Manufacture and sale of crackers having an impulsive noise having an impulsive noise of more than 90 dB at 5 meters distance from the site of bursting should be banned.
- Manufacture and bursting of joined crackers should be banned.
- Bursting of crackers during night between 9 p.m. and 6 a.m. should be banned.
- Bursting of crackers may be permitted only during public festivals.

The permissible levels for noise exposure for work zone area have been prescribed under the Model Rules of the Factories Act, 1948, as given in the Tables below.

Peak sound pressure level in dB	Permitted number of impulses or impact/day
140	100
135	315
130	1000
125	3160
120	10000

### Notes:

1. No exposure in excess of 140 dB peak sound pressure level is permitted.
2. For any peak sound pressure level falling in between any figure and the next higher or lower figure as indicated in column 1, the permitted number of impulses or impacts per day is to be determined by extrapolation on a proportionate basis.

Total time of exposure (continuous or a number of short term exposures) per day, in hr	Sound pressure level in dB(A)
8	90
6	92
4	95
3	97
2	100
1-1/2	102
1	105
1/2	107
1/4	110

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Notes:

- 1.No exposure in excess of 115 dB(A) is to be permitted.
- 2.For any period of exposure falling in between any figure and the next higher or lower figure as indicated in column 1,the permissible sound pressure level is to be determined by extrapolation on a proportionate basis.

For further information, please contact :

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