



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT
ARIYALUR
SAFETY DEPARTMENT MANUAL**

Issue No. 02	Rev. No: 00	Effective Date: 01.11.2019	WI-36(PI-14; AM-8)
Issued By: M.R		Approved By: HOD -SAFETY	
WORK INSTRUICTION FOR SAFETY PRECAUTIONS CONTROL OF NOISE POLLUTION			

Introduction:

Noise has an effect on living beings. While the sweet melodies create a world of joy around, higher levels of noise have different effects on human and other living beings.

Exposure to higher levels of noise can irritate, annoy, create anger, result in loss of mental peace, raise blood pressure, induce loss of sleep, result in partial loss of hearing and can lead to permanent, irreversible and total loss of hearing for human beings. It should therefore be noted that there are negative effects on other forms of life as well.

Those who run businesses should be sensitive to these genuine needs at work place and try all they can to keep noise pollution under control by adopting appropriate technology while designing the units/factories, devising suitable methods to control excess noise by creating enclosures, sound barriers etc and use a combination of methods which involves engineering or administrative controls, .

Periodic measurement of exposure to noise and its effect on people likely to be exposed to be studied and records maintained. The effect could vary between people and hence the special needs of people will have to be taken into consideration by policy makers.

In addition to Measuring Noise levels it is also necessary to check the hearing and health status of individuals by qualified doctors, irrespective of the age or employment status of workers.

The workroom standards have been specified in the Factories Rules Schedule XXVII – (Operations involving high noise levels)



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The Ambient Noise levels are specified as per Noise Pollution (Regulation and Control) Rules is specified to control noise pollution in the neighborhood.

Purpose: of this procedure is to identify the possible sources, levels of noise and application of the legal requirements in fulfilling our duties and to protect all those persons working in the plant from any harm due to exposure to high levels of noise and to prevent any disturbance to the neighborhood due to noise arising due to our functioning.

Scope: The scope of this procedure covers all activities of our plant and connected works including construction, operation, Material Handling, transportation or any other activities.

Responsibility:

Unit Head - Over all responsibility

Head HR - To identify and report compliance levels and any incident that causes or has the potential to violate the norms, procedures or legal requirements.

Head Safety – to Provide training and to monitor performance .

Procedure: -

Our Responsibilities under the Factory Rules 1950 (Schedule XXVII)

Operations involving high noise levels

High Noise levels means any noise level measured on the A- Weighted scale of 90 DB or above.

Protection against Noise - We are required to use suitable engineering, control or administrative measures as far as reasonably practicable, that no worker is exposed to sound levels exceeding the maximum permissible noise exposure levels as per Tables 1 & 2 Below.



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Table 1- Permissible Exposure in Cases of Continuous Noise

Sound Pressure Level in dBA	Total time of Exposure (Continuous or a number of Short term exposures)
	Per day, in Hours
90	8
92	6
95	4
97	3
100	2
102	1 -1/2
105	1
107	3/4
110	1/2
115	1/4
(No Exposure in excess of 115 dBA is permitted)	
For any period of exposure falling in between any figure and the next higher or lower figure as indicated above, the permissible sound pressure level is to be determined by extrapolation on a proportionate basis.	



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Table 2 – Permissible Exposure Levels of Impulsive or Impact Noise

Peak Sound Pressure Levels in dB	Permitted number of impulses of impacts per day
140	100
135	315
130	1000
125	3160
120	10,000
No exposure in excess of 140 dB peak sound pressure level is permitted	
For any peak sound pressure level falling in between any figure and the next higher or lower figure as indicated above, the permitted number of impulses or impacts per day is to be determined by extrapolation on a proportionate basis.	
If variations in the noise involve maxima at intervals of one second or less, the noise is to be considered as a continuous one and criteria as per Table 1 will apply.	
When the daily noise exposure is composed of two or more periods of noise exposure at different levels their combined effect should be considered rather than the individual effect of each .The mixed exposure should be considered to exceed the limit value if the sum of the fractions exceeds unity	
When such exposure cannot be controlled each worker should be provided with suitable ear protectors so as to reduce the exposure	



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If the ear protectors provided cannot attenuate the noise reaching near his ear, the noise exposure period shall be suitably reduced to correspond to the permissible noise exposure.

In all cases where prevailing sound levels exceed the permissible levels specified an effective hearing conversation programme, including pre-employment and periodic auditory surveys and rehabilitate them by reducing exposure or transferring them to place where noise levels are relatively less or by any other suitable means.

Our Responsibilities Under the Noise Pollution (Regulation & Control) Rules

Following locations were identified for monitoring noise level:

1. West side of the compound wall
2. East side of the compound wall
3. South Side of the compound wall
4. North Side of the compound wall

PPE (Personal Protective Equipment) Ear Muffs provided to all those who work in areas where noise level is high.

Ambient Air Quality Standards in respect of Noise is defined as follows.

Area Code	Category of Area /Zone	Limits in dB(A) Leq	
		Day Time (6AM to 10PM)	Night Time (10 PM to 6 AM)



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A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

As per the TN Pollution Control Board Consent for Operation our Plant comes in Area Code A – Industrial area and the corresponding limits apply.

The noise levels are monitored periodically at locations identified for this purpose and as per applicable guidelines to ascertain the facts and records are maintained.

Referred Formats/Records

Statutory Planner

Statutory Compliance Report

Environmental Performance Reports

Aspect Register

Test Report

Reference Documents

- 1) **Factories Rules 1950 Schedule XXVII –Operations Involving High Noise Levels.**
- 2) **The Noise Pollution (Regulation & Control Rules 2000)**
- 3) **Conditions Stipulated in the Consent for Operation.**
- 4) **Legal and other requirements**
- 5) **Management of Aspects**

Sl.No.	Description	Format No.	Location	Retention period
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1	Noise Level Survey	F-1/WI-36(PI-14;AM-7)	Environment Office	2 Year
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