

OCCUPATIONAL SAFETY & HEALTH REGULATION (NOISE EXPOSURE) 2019



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Table of Content

- 1 : Citation and Commencement
- 2 : Interpretation
- 3 : Identification of excessive noise
- 4 : Noise Risk Assessment
- 5 : Information, instruction, training and supervision
- 6 : Noise Exposure Limit & Reduction of noise exposure exceeding limit
- 7 : Personal Hearing Protector
- 8 : Hearing Protection Zone
- 9 : Audiometric Testing
- 10 : Duty of employer when audiometric testing is carried out
- 11 : Record to be kept
- Penalty

1 : Citation and commencement

These regulations may be cited as the **Occupational Safety and Health (Noise Exposure) Regulations 2019.**

These Regulations come into operation on
1 JUNE 2019





2 : Interpretation

excessive noise	daily noise exposure level exceeding 82 dB(A), daily personal noise dose exceeding fifty per cent, maximum sound pressure level exceeding 115 dB(A) at any time, or peak sound pressure level exceeding 140 dB(C)
dB(A)	A-weighted decibel which is a unit of measurement of sound pressure level corrected to the A-weighted frequency scale by means of an electrical network having the characteristics specified accordingly by the International Electrotechnical Commission using a reference sound pressure level of 20 micropascals
dB(C)	C-weighted decibel which is a unit of measurement of sound pressure level corrected to the C-weighted frequency scale by means of an electrical network having the characteristics determined by the International Electrotechnical Commission using a reference sound pressure level of 20 micropascals
daily noise exposure level	the equivalent continuous sound pressure level corrected for a normal working day of eight hours
daily personal noise dose	the cumulative noise exposure of an employee corrected for a normal working day of eight hours
International Electrotechnical Commission	the International Electrotechnical Commission that prepares and publishes International Standards for all electrical, electronic and related technologies



2 : Interpretation

peak sound pressure level	the highest C-weighted instantaneous sound pressure level of any impact
noise exposure	the amount of sound pressure exposed to a person's unprotected ear
personal hearing protector	a device worn by a person to prevent unwanted auditory effects from acoustic stimuli
sound pressure level	the level, in decibels, calculated as twenty times the common logarithm of the ratio of a sound pressure to the reference sound pressure of 20 micropascals
abnormal audiogramme	an audiogramme that shows a hearing loss, hearing impairment or permanent standard threshold shift
hearing impairment (HI)	the arithmetic average of the permanent hearing threshold level of an employee at 500, 1000, 2000 and 3000 Hz which is shifted by 25 dB or more compared to the standard audiometric reference level
noise-induced hearing loss (NIHL)	hearing loss arising from exposure to noise
standard threshold shift (STS)	an average shift of 10 dB or more at frequencies of 2000, 3000 and 4000 Hz compared to the baseline audiogramme



3: Identification of excessive noise

Employer shall identify whether his **employee** may be **exposed to excessive noise** in the place of work in the manner as determine by DG.

Identification of excessive noise be reviewed when:-

- (a) change in machinery, equipment, process, work, control measures or operation;**
- (b) after 1 year** from the date of the **previous identification**
- (c) if directed by Director General**

Excessive Noise means the **Sound Pressure Level** exceeding:-

- Leq – 82 dB(A) or**
- Daily Personal Noise Dose - 50% or**
- Maximum SPL - 115 dB(A) at any time or**
- Peak SPL - 140dB(C)**



4 : Noise Risk Assessment

EMPLOYER

- **Appoint Noise Risk Assessor**
- **Notify exposed employee within 14 days after receiving report from NRA**
- **Carry out such recommendations within 30 days after receiving report from NRA**
- **Review Noise Risk Assessment:-**
 - a) **after 5 years** from the date of previous assessment
 - b) **if directed by DG**

NOISE RISK ASSESSOR (NRA)

- **Registered with Director General (DG)**
- **Posses valid certificate by DG**
- **Conduct Noise Risk Assessment** using noise measuring equipment comply to IEC
- **Report includes the findings and recommendations** made based on assessment
- **Prepare & submit report to the employer within 1 month**

5 : Information, instruction, training and supervision

EMPLOYER

- Shall provide adequate **information, instruction, training and supervision** for his employees that exposed to an **EXCESSIVE NOISE**
- **Relation to:-**
 - a) Effects of noise exposure and the requirement to undergo an audiometric testing to such employees
 - b) Proper usage of a personal hearing protector to such employees



**Training at least
once a year!!**



6: Noise Exposure Limit (NEL)

- Employer shall ensure, nobody is allowed to be exposed **exceeding:-**
 - (a) **Daily Noise Exposure Level - 85dB(A) / Daily Personal Noise Dose – 100%**
 - (b) **Maximum SPL - 115dB(A)** at any time
 - (c) **Peak SPL - 140dB(C)**

- **Daily Personal Noise Dose** means cumulative noise exposure of an employee **corrected for a normal working day of 8 hours.**
- If exposed to an excessive noise exceeding NEL, the employer shall take such measures to reduce the excessive noise.



6 : Reduction of noise exposure exceeding limit

- The employer shall, before taking the measures, make an assessment whether it is practicable to reduce such excessive noise by way of engineering control or administrative control:-
 - a) **It is practicable** (Eng. Control) – noise reduction by engineering control
 - b) **It is not practicable** (Eng. Control) – noise reduction by engineering and administrative control
 - c) **It is not practicable** (Eng. & Administrative Control) – noise reduction by administrative control
 - d) **It is not practicable** (Administrative Control) – other effective measures to reduce such noise
- The employer shall make a report on the assessment, and shall, upon request in writing from the Director General, give the Director General a copy of that report within thirty days after the request is received.

7 : Personal Hearing Protector (PHP)

EMPLOYER

- Shall ensure PHP provided to the employee -
 - a) **suitable & efficient**
 - b) **properly inspected, maintained and made available** at all time
 - c) **will reasonably attenuate** the employee's personal noise exposure below NEL
 - d) **approved by DG**



Definition PHP : A device worn by a person to prevent unwanted auditory effects

8 : Hearing Protection Zone

EMPLOYER

- Shall ensure **any area** in the place of work **where a person is exposed to NEL -**
 - a) **marked** with the words **“HEARING PROTECTION ZONE”** in capital letter
 - b) **demarcated** and **identified** by means of **appropriate warning sign**



- Employer shall ensure-
 - a) to provide PHP in each hearing protection zone
 - a) any employee or other person to use PHP while in the hearing protection zone



9 : Audiometric Testing

EMPLOYER	ATC	OHD
<p>1. Cause an audiometric testing to be carried out on such employee (exposed to NEL) annually</p>	<p>3. Appoint Occupational Health Doctor (OHD) to interpret audiogramme.</p>	<p>4. Carry out medical examination on an employee with abnormal audiogramme</p>
<p>2. Appoint an approved Audiometric Testing Centre (ATC) to carried out audiometric testing</p>	<p>7. Submit report on the audiometric testing to employer within 30 days of the date testing</p>	<p>5. Medical examination shall include a history taking, physical examination and other relevant investigations to diagnose whether being occupational or non-occupational in origin</p>
<p>8. Notify employee of the audiometric testing result within 21 days after receiving the report.</p>		<p>6. Notify DG any Occ. Related NIHL, Hearing Impairment or PSTS within 7 days after Medical Examination</p>



9 : Audiometric Testing

EMPLOYER	ATC	OHD
<p>9. If temporary STS occurred:-</p> <ul style="list-style-type: none"> a) Cause a retest to be carried out by ATC on such employee within 3 months after the previous testing b) take such measures to protect the hearing of such employee from further deterioration. 		
<p>10. When the result of audiometric testing shows any Occ. Related NIHL, Hearing Impairment or PSTS, employer shall:</p> <ul style="list-style-type: none"> a) notify Director of nearest DOSH office within 7 days b) provide a PHP to such employee if no PHP is provided previously c) train such employee on the usage of PHP 		



10 : Duty of employer when audiometric testing is carried out

- Employer shall ensure:-
 - (a) no cost to the employee**
 - (b) Baseline audiogramme be carried out within 3 months after employee commencing work at any area which exposed to NEL**
 - (c) audiometric testing is only be carried out in quiet state of at least 14 hours without the aid of PHP**
- **“quiet”**- absence of exposure to sound level exceeding 80 dB(A)



11 : Record to be kept

- Employer shall:-
 - 1) ensure **report of noise risk assessment** is **kept** and **maintained** for a period **not less than 30 years**
 - 2) **keep** and **maintained** **audiometric testing report** of **his employee** and for a **period of 5 years** after such employee is ceased
 - 3) **hand over all records** to **other person** who take over such business **where** an **employer ceases** to carry on business
 - 4) **give** the **DG** at least **3 months notice in writing** of his intention to **dispose** of such records (at the **expiration** of the period). **Transmit** the **records to DG** if requested.

Penalty

Fine not exceeding
RM 10,000 or
imprisonment for a
term not exceeding **1**
year or **BOTH**



COMPARISON BETWEEN

FACTORIES AND MACHINERY
(NOISE EXPOSURE) REGULATIONS 1989

- OCCUPATIONAL SAFETY & HEALTH ACT
(NOISE EXPOSURE) REGULATION 2019



<p align="center">FACTORIES AND MACHINERY (NOISE EXPOSURE) REGULATIONS 1989</p>	<p align="center">OCCUPATIONAL SAFETY & HEALTH ACT (NOISE EXPOSURE) REGULATION 201X</p>
<p>Applied to all FACTORIES in which persons are employed involving exposure to excessive noise</p>	<p>Applied to all PLACE OF WORK covered under OSHA 1994</p>
<p>No identification of excessive noise</p>	<p>Identification of excessive noise</p>
<p>Noise Competent Person</p>	<p>Noise Risk Assessor (NRA)</p>
<p>Training for workers expose to more than 85dB(A). Training once every 2 year</p>	<p>Training for workers expose to excessive noise. Training every year</p>
<p>No assessment</p>	<p>Assessment of control measure's practicability</p>
<p>Hearing protection device</p>	<p>Personal hearing protector</p>



FACTORIES AND MACHINERY (NOISE EXPOSURE) REGULATIONS 1989	OCCUPATIONAL SAFETY & HEALTH ACT (NOISE EXPOSURE) REGULATION 201X
Warning Signs	Hearing protection zone
General information on Audiometric testing programme	Audiometric testing – detailing the scope of work for employer, ATC and OHD.
Medical Practitioner	OHD
No requirement on registration of ATC	Registration of ATC
Fine not exceeding Penalty RM1,000	Fine not exceeding Penalty RM10,000 or imprisonment for a term not exceeding 1 year or BOTH
PEL ≥ 90 dBA, > 115 dBA (max), > 140 dB (peak)	NEL > 85 dBA, > 115 dBA (max), > 140 dB (peak)
Action Level : 85 dBA	Action Level : 82 dBA
Audiometric Baseline : 6 months	Audiometric Baseline : 3 months



FACTORIES AND MACHINERY (NOISE EXPOSURE) REGULATIONS 1989	OCCUPATIONAL SAFETY & HEALTH ACT (NOISE EXPOSURE) REGULATION 201X
Audiometry (Repetition) : ≥ PEL/HI/STS: Yearly ≥ AL & < PEL : 2 Yearly	NEL: Annually
Audiometry (Submission) : No time limit	Audiometry (Submission) : 1 month from date of testing
Audiometry (Testing Freq.): 0.5, 1, 2, 3, 4 & 6 kHz	Audiometry (Testing Freq.): 0.5, 1, 2, 3, 4, 6 & <u>8</u> kHz

THANK YOU