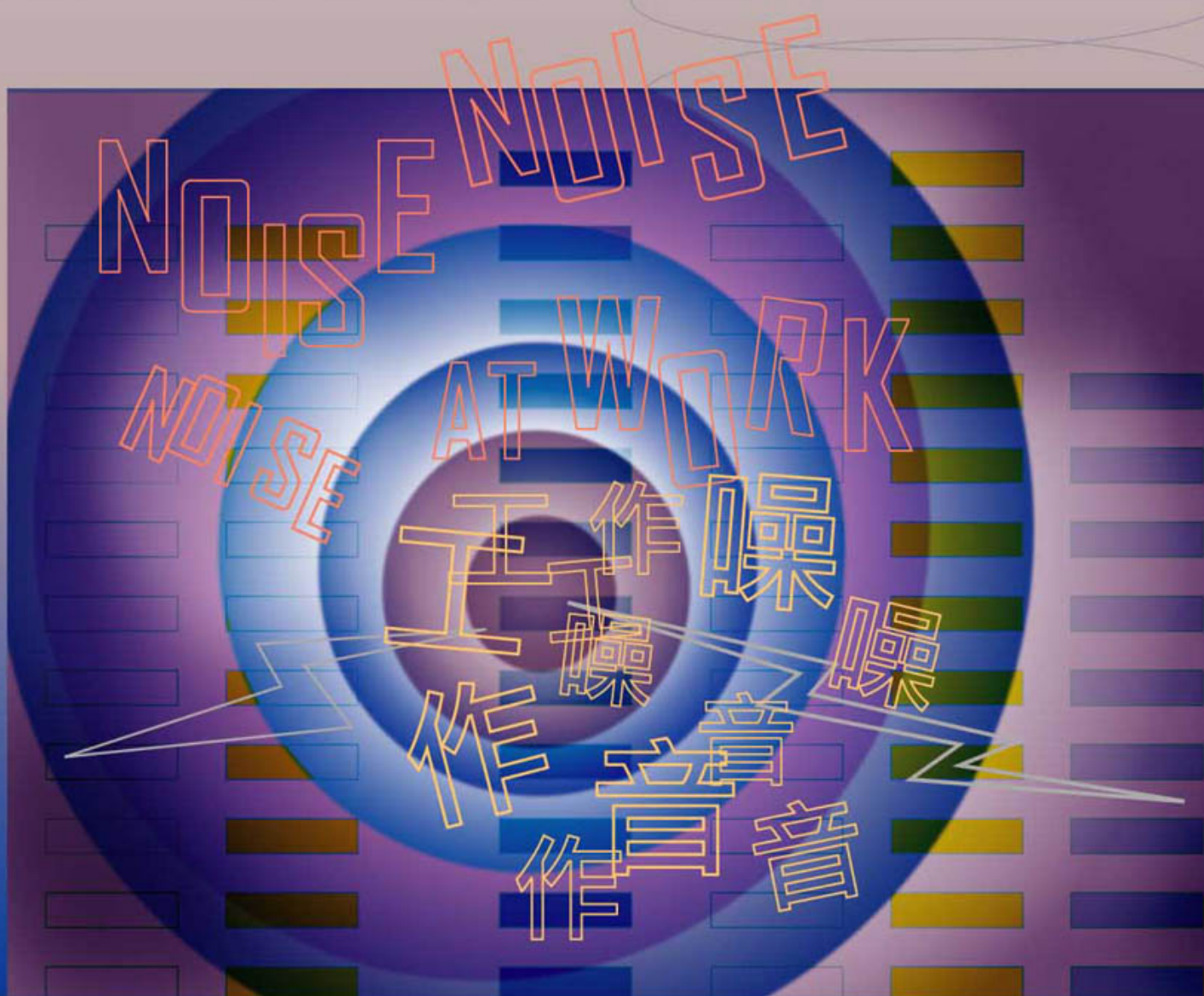


工廠及工業經營(工作噪音)規例簡介

A GUIDE TO THE FACTORIES AND INDUSTRIAL UNDERTAKINGS (NOISE AT WORK) REGULATION



本簡介由勞工處職業安全及健康部印製
This guidebook is prepared by the
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本簡介可以在勞工處職業安全及健康部各辦事處免費索取，亦可於勞工處網站 <http://www.labour.gov.hk/public/os/A/NoiseReg.htm> 直接下載。有關各辦事處的地址及查詢電話，可參考勞工處網站 <http://www.labour.gov.hk/tele/osh.htm> 或致電 2559 2297。

歡迎複印本簡介，但作廣告、批核或商業用途者除外。如需複印，請註明錄自勞工處刊物《工廠及工業經營（工作噪音）規例簡介》。

This guidebook is issued free of charge and can be obtained from offices of the Occupational Safety and Health Branch, Labour Department. It can also be downloaded from website of the Labour Department at <http://www.labour.gov.hk/eng/public/os/A/NoiseReg.htm>. For enquiries about addresses and telephone numbers of the offices, please visit the website of the Department at <http://www.labour.gov.hk/eng/tele/osh.htm> or call 2559 2297.

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A GUIDE TO THE FACTORIES AND INDUSTRIAL UNDERTAKINGS (NOISE AT WORK) REGULATION

目 錄

	頁 碼
一. 引言	4
二. 措施聲級及各項主要規定	4
三. 提供給東主的意見	10
三.一 判斷你是否遇到問題	10
三.二 評估噪音	12
三.三 通知受影響的僱員	12
三.四 盡可能減低噪音	14
三.五 保護聽覺	14
三.六 確保你所採用的計劃有效	18
四. 給僱員的意見	20
五. 資料查詢	20
六. 附錄 — 噪音評估報告表格	22

C O N T E N T S

	Page
1. Introduction	5
2. Action Levels and the Main Requirements	5
3. ADVICE FOR PROPRIETORS	11
3.1 Decide whether you have a problem	11
3.2 Assess the noise	13
3.3 Tell the employees affected	13
3.4 Reduce the noise as far as practicable	15
3.5 Ear protection	15
3.6 Ensure your programme is working	19
4. ADVICE FOR EMPLOYEES	21
5. Useful Information	21
6. Annex-Noise Assessment Report form	22

一 引言

本簡介以簡明的方式詮釋《工廠及工業經營(工作噪音)規例》所載的各項規定。該規例旨在保護在工業經營工作而身處或可能身處有害噪音中的僱員的聽覺。讀者如有任何疑問，可參閱該規例及《工廠及工業經營(工作噪音)規例指引》，該指引為東主提供履行法定責任的技術指導。該規例指引可在勞工處職業安全及健康部各辦事處免費取閱。本簡介的編印過程已力求審慎，但簡介中有關《工廠及工業經營(工作噪音)規例》中各項規定的詮釋，則以該規例為準。

二 措施聲級及各項主要規定

二·一 規例界定了三個措施聲級：

- (a) 初級措施聲級——個人每日受到達 **85** 分貝(A)的噪音暴露量($L_{EP,d}$)影響；
- (b) 二級措施聲級——個人每日受到達 **90** 分貝(A)的噪音暴露量($L_{EP,d}$)影響；
- (c) 頂級措施聲級——峰值聲音壓力水平達 **140** 分貝或峰值聲音壓力達 **200** 帕斯卡。

二·二 一般而言，每日個人噪音暴露量，是指以工作場地的平均噪音水平及身處其中的時間計，在整個工作日中所受到的總噪音暴露量，但未包括戴上任何聽覺保護器的情形。峰值聲音壓力是指聲波的最高壓力，例如由一具彈葯推動打釘工具所發出的最高聲音脈衝壓力。

1 Introduction

This booklet is intended to explain briefly and in simple terms those provisions of the Factories and Industrial Undertakings (Noise at Work) Regulation which protect the hearing of employees who are exposed or likely to be exposed to hazardous noise while at work in any industrial undertaking. In case of doubt, the reader is advised to refer to the Regulation and our Guidance Notes on Factories and Industrial Undertakings (Noise at Work) Regulation, which affords technical guidance for proprietors to discharge their legal obligations. The Guidance Notes are available free of charge from the offices of the Occupational Safety and Health Branch, Labour Department. Whilst every care has been taken in the preparation of this guide, the Factories and Industrial Undertakings (Noise at Work) Regulation remains to be the sole authority for the provisions of the law explained.

2 Action Levels and the Main Requirements

2.1 There are three action levels defined in the Regulation:-

- (a) First Action Level - a daily personal noise exposure ($L_{EP,d}$) of 85 dB(A)
- (b) Second Action Level - a daily personal noise exposure ($L_{EP,d}$) of 90 dB(A)
- (c) Peak Action Level - a peak sound pressure level of 140 dB or peak sound pressure of 200 Pa.

2.2 Generally, a daily personal noise exposure can be regarded as the total exposure throughout the working day, taking into account the average noise levels in the working areas and the time spent in them, but taking into no account of any ear protector worn. The peak sound pressure is the highest pressure of the sound wave, for example, the peak sound pressure is the sound impulse generated by a cartridge-operated fixing tool.

二 · 三 規例規定東主當一名僱員可能身處於初級措施聲級或以上的噪音環境時，其東主須採取某些基本措施。如僱員可能會身處於二級措施聲級或以上，甚至頂級措施聲級時，除上述基本措施外，更須採取一些額外措施。現將各項主要規定撮要如下：

當噪音暴露量 ($L_{EP,d}$) 可能或會高於右列程度 (請參閱表後的註釋1)	85分貝 (A) 初級措施聲級	90分貝 (A) 二級措施聲級請參閱表後的註釋2)
東主的責任		
1 評估噪音暴露量 —— 由一名有足夠能力的人士作出評估(第3(1)條) —— 於有需要時檢討評估(第3(2)條) —— 於28天內將評估報告送交勞工處(第3(4)條) —— 隨時具備評估報告供職業安全主任查閱(第3(5)條)	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
2 減低噪音 —— 以使用聽覺保護器以外的其他方法盡量減低噪音暴露量(第8條)	✓	✓
3 向僱員提供資料 —— 就損害聽覺的危險向僱員提供資料、指導及訓練，使他們知道如何減輕危險及明白規例中有關他們應盡的義務(第10條) —— 盡可能以告示劃分聽覺保護區(第4(2)(b)條) —— 指明一段與發出噪音機器的距離，在該距離內須戴上適合的認可聽覺保護器(第5(a)條)	✓	✓ ✓ ✓

註釋： (1) 分貝(A)措施聲級是每日個人噪音暴露量的數值($L_{EP,d}$)

(2) 所有在90分貝(A)聲級時所需要採取的行動，在峰值聲音壓力水平達140分貝或以上時亦同樣需要

2.3 The Regulation requires the proprietor to take certain basic steps where an employee is likely to be exposed to noise at or above the First Action Level. These, together with additional action, must also be taken where an employee is likely to be exposed to noise at or above the Second or Peak Action Level. The main requirements are summarized in the following table: -

Action required where $L_{EP,d}$ is likely to be or above: (see Note 1 below)	85 dB(A) First Action Level	90 dB(A) Second Action Level (see Note 2 below)
Proprietor's Duties		
1 Assessment of noise exposure <ul style="list-style-type: none"> – Get a competent person to assess (Section 3(1)) – Review assessment when necessary (Section 3(2)) – Send assessment report to Labour Department within 28 days (Section 3(4)) – Make assessment report available for inspection by an occupational safety officer (Section 3(5)) 	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
2 Noise reduction <ul style="list-style-type: none"> – Reduce noise exposure as far as is practicable by means other than ear protectors (Section 8) 	✓	✓
3 Provision of information to employees <ul style="list-style-type: none"> – Provide adequate information, instruction and training about risks to hearing, what employees should do to minimize risk, and their obligations under the Regulation (Section 10) – Mark ear protection zones with notices, as far as is practicable (Section 4(2)(b)) – Specify the distance for noisy machine within which suitable approved ear protectors have to be worn (Section 5(a)) 	✓	✓ ✓ ✓

Notes: (1) The dB(A) action levels are values of daily personal exposure to noise ($L_{EP,d}$).

(2) All the actions indicated at 90 dB(A) are also required where the peak sound pressure level is at or above 140 dB.

當噪音暴露量 ($L_{EP,d}$) 可能或會高於右列程度 (請參閱表後的注釋1)	85分貝 (A) 初級措施聲級	90分貝 (A) 二級措施聲級(請參閱表後的注釋2)
<p>4 聽覺保護器</p> <ul style="list-style-type: none"> —— 盡可能確保有適合的認可聽覺保護器： <ul style="list-style-type: none"> —— 以便在僱員要求時，可給予其使用(6(1)條) —— 給予所有暴露於噪音中的人士使用(第6(3)條) —— 獲妥為維修(第9(1)(b)條) —— 均獲所有暴露於噪音中的人士使用(第9(1)(a)條) —— 確保所有在指明距離內的操作員均戴上適合的認可聽覺保護器(第5(c)條) —— 盡可能確保所有進入聽覺保護區的人士均戴上適合的認可聽覺保護器(第4(2)(c)條) <p>5 維修及使用噪音控制設備</p> <ul style="list-style-type: none"> —— 盡可能確保 <ul style="list-style-type: none"> —— 所有本規例規定的設備均獲適當使用(第9(1)(a)條) —— 所有此類設備均妥為維修(第9(1)(b)條) 	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>
<p>僱員的責任</p> <p>使用設備</p> <ul style="list-style-type: none"> —— 盡可能使用適合的認可聽覺保護器(第9(2)(a)條) —— 如有任何欠妥之處，應向東主報告第9(2)(b)條 	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>

註釋： (1) 分貝 (A) 措施聲級是每日個人噪音暴露量的數值 ($L_{EP,d}$)

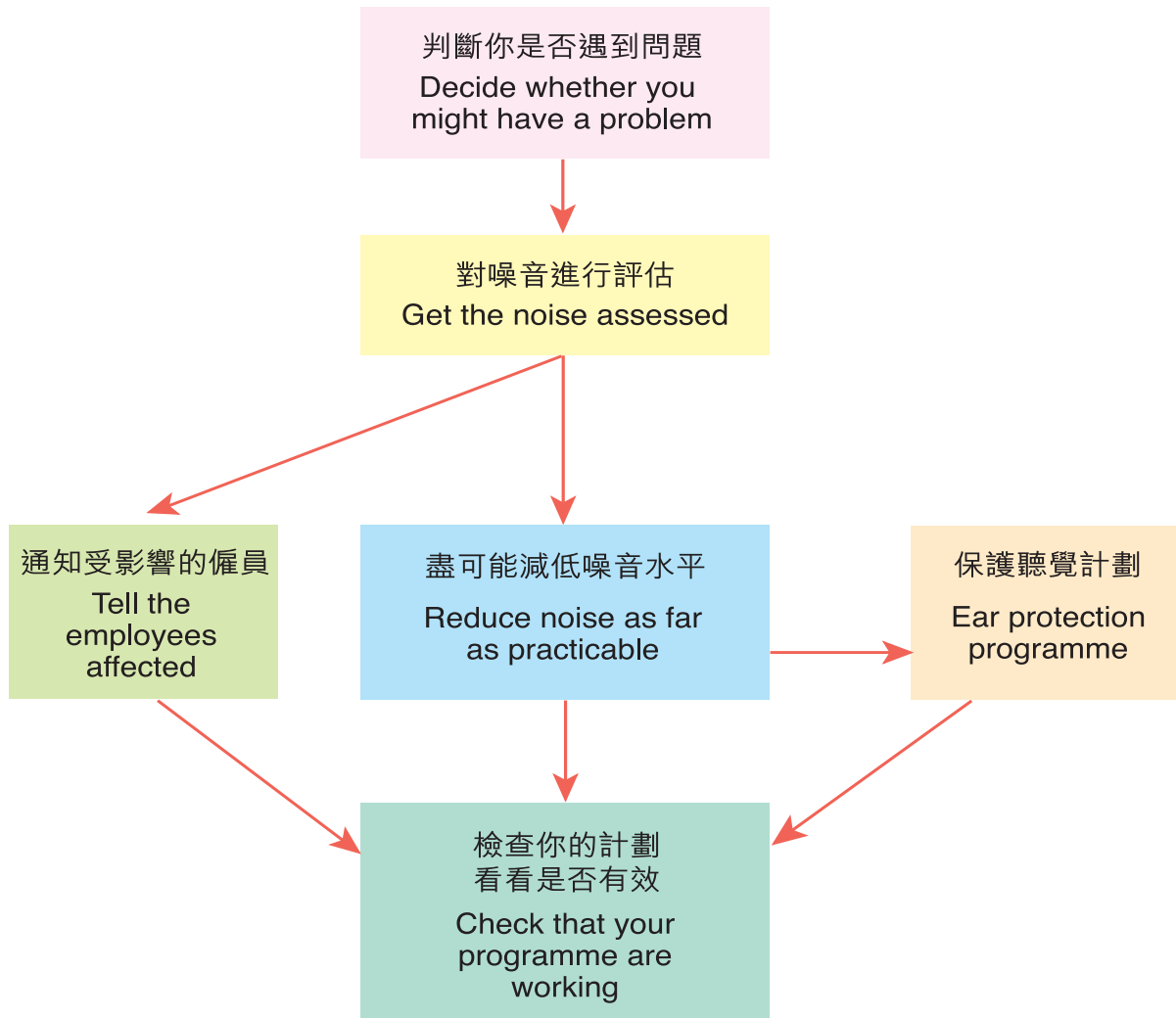
(2) 所有在90分貝 (A) 聲級時所需要採取的行動，在峰值聲音壓力水平達140分貝或以上時亦同樣需要

Action required where $L_{EP,d}$ is likely to be or above: (see note 1 below)	85 dB(A) First Action Level	90 dB(A) Second Action Level (see Note 2 below)
<p>4. Ear protectors</p> <ul style="list-style-type: none"> - Ensure as far as is practicable that suitable approved ear protectors are: <ul style="list-style-type: none"> - provided to employees who ask for them (Section 6(1)) - provided to all exposed (Section 6(3)) - properly maintained (Section 9(1)(b)) - used by all exposed (Section 9(1)(a)) - Ensure all operatives within the specified distance wear suitable approved ear protectors (Section 5(c)) - Ensure as far as is practicable that all go into an ear protection zone wear suitable approved ear protectors (Section 4(2)(c)) <p>5. Maintenance and use of noise control equipment</p> <ul style="list-style-type: none"> - Ensure as far as is practicable that: <ul style="list-style-type: none"> - all equipment provided under the Regulation are properly used (Section 9(1)(a)) - all equipment are properly maintained (Section 9(1)(b)) 	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>
<p>Employee's Duties</p> <p>use of equipment</p> <ul style="list-style-type: none"> - use suitable approved ear protectors as far as is practicable (Section 9(2)(a)) - report any defects to the proprietor (Section 9(2)(b)) 	<p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p>

- Notes:
- (1) The dB(A) action levels are values of daily personal exposure to noise ($L_{EP,d}$).
 - (2) All the actions indicated at 90 dB(A) are also required where the peak sound pressure level is at or above 140 dB.

三 提供給東主的意見

圖一的行動撮要圖可幫助你決定應採取什麼行動。



圖一：行動圖

Sketch 1 : Action Plan

三 · 一 判斷你是否遇到問題

如有人在相距二米處需要大叫始令他人聽到，或對明白他的說話有困難時，則你可能已遇到問題（圖二）。

為斷定情況起見，你有需要對噪音進行評估。

3 ADVICE FOR PROPRIETORS

The action plan summarized at sketch 1 will help you decide what you should do.

3.1 Decide whether You might have a Problem

If people have to shout to be heard or have difficulty being understood by someone about 2 metres away, you might have a problem (Sketch 2).

To be sure you will need to get the noise assessed.



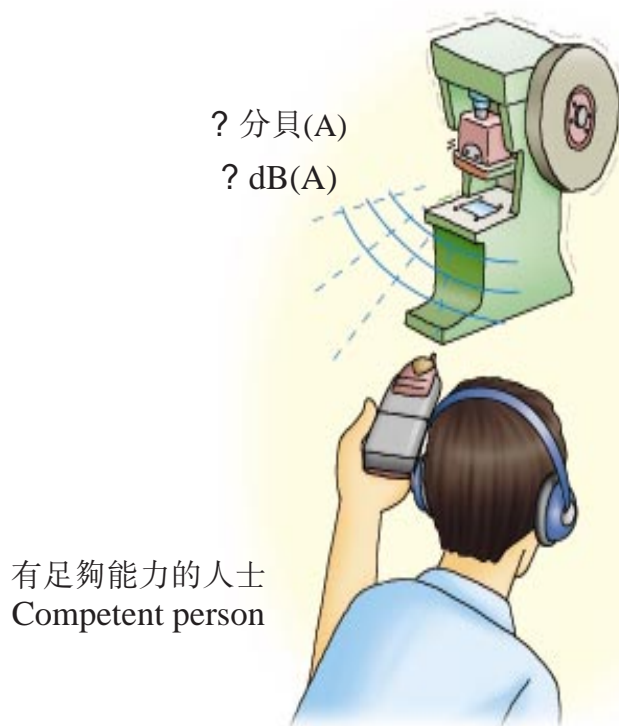
圖二：如難以聽到對方說話，則有噪音問題

Sketch 2 : A noise problem exists if people have difficulty in hearing from others

三 · 二 評估噪音

你的評估工作應找出噪音對僱員的影響是否有可能達到「措施聲級」，而該項評估應充分提供有關噪音的資料供你判斷須採取甚麼行動。

評估工作須由一名有足夠能力的人士擔任——即一名曾受過適當訓練及在噪音評估工作方面經驗的人士(圖三)。至於其資格方面，最重要的是他能夠妥當地進行評估的工作及清楚自己的能力範圍。不過，很多技術人員或需要接受額外的訓練，而職業安全健康局現就上述情況提供訓練課程。另一方面，你亦可請有關的顧問協助。



圖三：進行噪音評估的有足夠能力的人士。

Sketch 3 : A competent person making noise assessment

三 · 三 通知受影響的僱員

假如你的評估報告顯示噪音對僱員的影響達到或超過任何一個措施聲級，你便應該通知他們有關該噪音危害的存在，及你需要他們做些甚麼以將危害減至最低。

3.2 Assess the Noise

Your assessment should find out whether the noise exposure is likely to reach the 'action levels', and provide enough information about the noise for you to decide what action to take.

The job will need to be done by a competent person - someone with suitable training and experience and competent to carry out noise assessments. The essential qualification for the person is the ability to do the job properly and to know his own limits. However, many technicians may need extra training and the Occupational Safety and Health Council is providing training courses for the purpose. Alternatively you might call in a consultant.

3.3 Tell the Employees affected

Where your assessment shows exposure is at, or above, any of the 3 action levels, you should let your employees know there is a noise hazard, and what you want them to do to keep the risk to a minimum.

三 · 四 盡可能減低噪音

每當有需要控制噪音對僱員的影響時，如可能的話，最可靠的方法是從發出噪音來源處減低噪音(圖四)。勞工處發表過一些這方面的指引，並在這方面備有專門書籍。你亦可向獨立顧問尋求協助。此外，產生有關問題的機器的供應商亦可提供協助。



圖四：從來源處減低噪音

Sketch 4 : Reducing noise at source

如果你在購買新機器時確保該機器已內設減低噪音裝置，則許多這方面的問題都可避免。當選購機器前，應查詢這方面的資料。

你亦應該考慮可否減少在嘈吵範圍工作的僱員人數，或減少他們在該範圍工作的時間。一些工作其實可以在較靜的地方進行。

三 · 五 保護聽覺

如僱員需要在有噪音危害的地方工作，則有需要使用適合的聽覺保護器(耳罩或耳塞)以減低危害。所使用的聽覺保護器，必需獲得勞工處認可。不過，使用聽覺保護器不可視為減低噪音的替代措施。如僱員工作地方的噪音水平達到或超過初級或頂級措施聲級，則根據規例的規定，你仍然需要盡可能以其他方法減低噪音對僱員的影響。

3.4 Reduce the Noise as far as practicable

Where noise exposure needs to be controlled, the most reliable way of doing so will be to quieten the noise sources if this can be done (Sketch 4). The Labour Department publishes some advice, and many textbooks are available on the subject. You might also be able to get help from your independent consultants. The suppliers of the machinery creating the problem might also be able to help.

Many problems can be avoided if you can make sure that noise reduction is built into new machinery when you buy it. Ask about them before deciding which machine to buy.

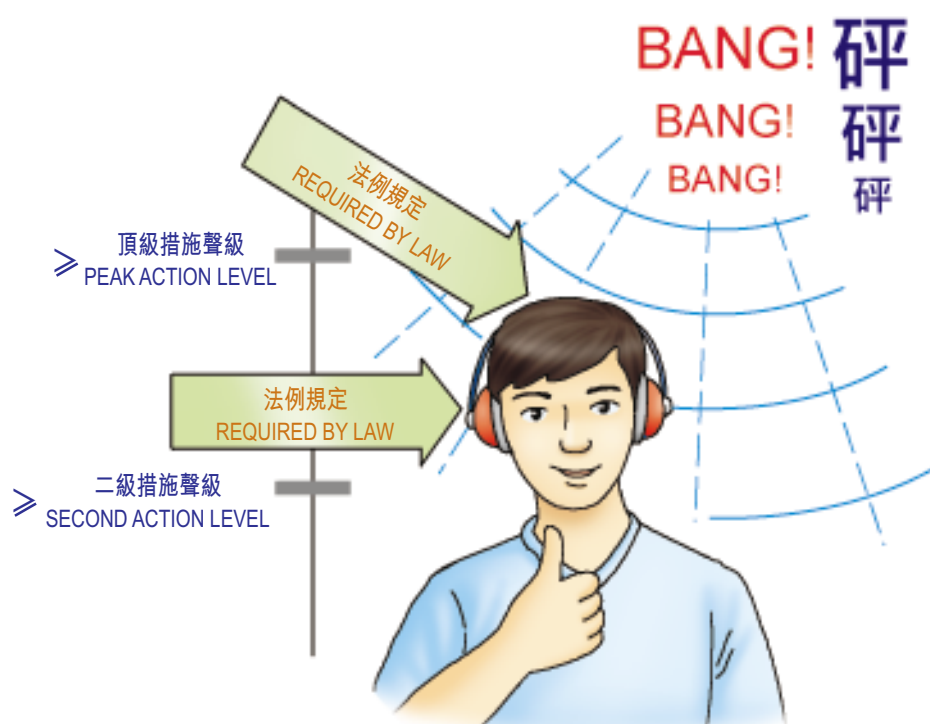
You should also consider whether it might be possible to reduce either the number of employees working in noisy areas or the time they have to spend in them. Perhaps some jobs could be done in quieter locations.

3.5 Ear Protection

If people have to work in noise-hazardous areas, they will need suitable ear protectors (ear muffs or ear plugs) to reduce the hazard. Only those ear protectors approved by the Labour Department can be used. However, these should not be regarded as a substitute for noise reduction. As long as people work in areas where noise levels are at, or above, the First or Peak Action Level, the Regulation requires you to reduce noise exposure by other means, as far as practicable.

你必須確保當你的僱員受到二級或頂級措施聲級或超過該等聲級的噪音影響時，他們時刻都戴上適合的認可聽覺保護器（圖五）。當噪音水平在初級和二級措施聲級時，你必須確保：

- (a) 在僱員提出要求時，可隨時取用聽覺保護器；及
- (b) 僱員明白除非戴上聽覺保護器，否則其聽覺會有受損之虞。



圖五：法例規定當噪音達到或超過二級或頂級措施聲級時必須戴上適合的認可聽覺保護器

Sketch 5 : Compulsory wearing of suitable approved ear protectors at or above the Second or Peak Action Level

聽覺的損害會累積，因此，應確保僱員，特別是年青僱員，養成佩戴聽覺保護器的習慣，以免聽覺受損。

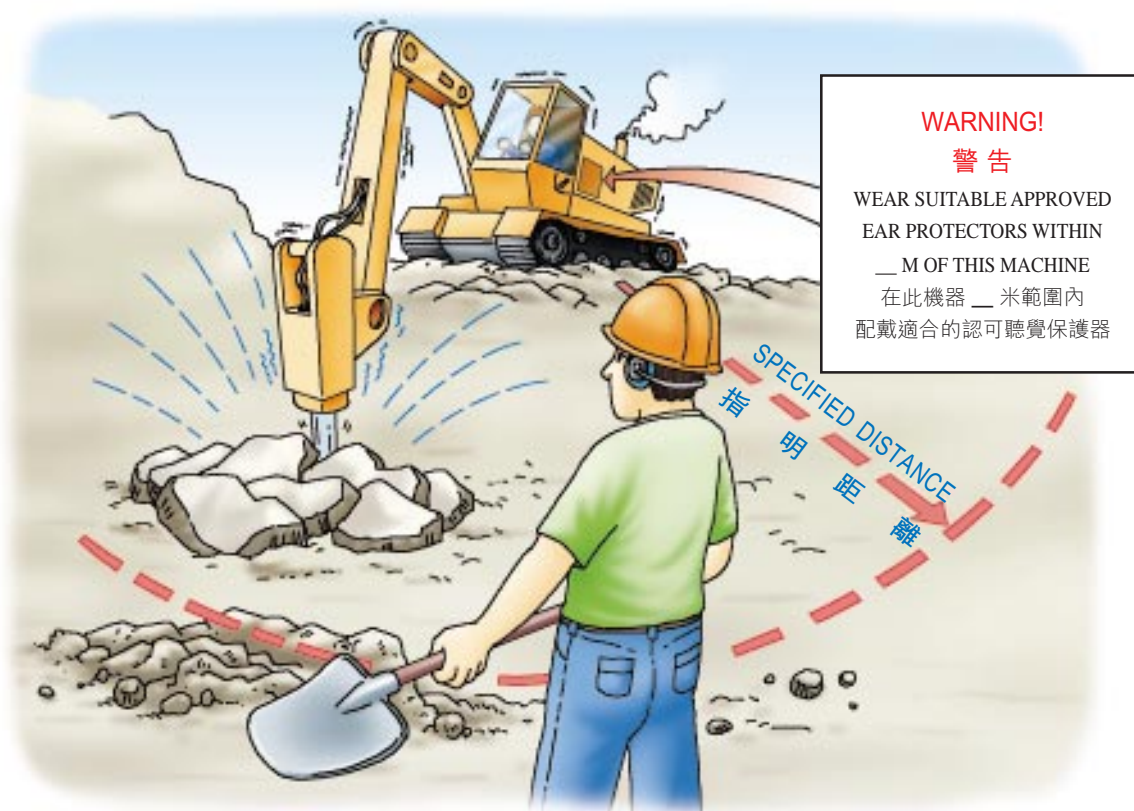
在聽覺保護區，必須使用適合的認可聽覺保護器。在可能情況下，須按照圖六所示的方式劃定該區，並須確保任何進入或停留在該區的人士戴上適合的認可聽覺保護器。

在建築地盤及有嘈吵機器經常四處移動的地方，則須貼出警告標貼或告示，及確保在「指明距離」內工作的人員戴上適合的認可聽覺保護器（圖七）。

三·六 確保你所採用的計劃有效

確保所有由你提供的設備保持良好功能及聽覺保護器確有被使用。如發現有任何欠妥之處，切勿忽視，應立即將它糾正。

其他人可能全賴它保護聽覺！



圖七：在建築地盤內指明一個與嘈吵機器的距離，在該距離內必須戴上適合的認可聽覺保護器

Sketch 7: Specification of a distance for noisy machines on construction sites within which suitable approved ear protectors must be worn

On construction sites and in places where it is not practicable to make ear protection zones, for example, where noisy machines are moved about frequently from time to time, you should attach a warning label or sign and ensure that the operatives wear suitable approved ear protectors when they are within the 'specified distance' (Sketch 7).

3.6 Ensure Your Programme is working

Make sure the equipment you provided is kept in good condition and the ear protectors are really being used. If anything is wrong – don't neglect it: – put it right immediately.

SOMEONE'S HEARING MIGHT DEPEND ON IT!

四 給僱員的意見

只有在東主和僱員攜手合作下，保護聽覺免受損害的計劃才會成功。為遵守規例對僱員的規定，你必須：

- (a) 每當你身處噪音可能達到二級或頂級措施聲級的地方，或每次你進入一個列為聽覺保護區的地方，或身處指明距離內操作嘈吵機器時，戴上為你而設的適合的聽覺保護器；及
- (b) 如發現認可的聽覺保護器有欠妥之處，立即向東主報告。

如果你身處於可能達到初級措施聲級的噪音中，你的東主應提醒你，並且在你需要時提供適合的聽覺保護器給你使用，為本身利益計，你應該提出要求及使用這些聽覺保護器。如果你認為你的聽覺有任何問題，應該延醫診斷。

可能全賴你這樣做，你的聽覺才會無損！

五 資料查詢

如你對本簡介有任何疑問或想查詢其他職業安全及健康事宜，你可與職業安全及健康部聯絡：

電話 ： 2559 2297 (辦公時間外，將會自動錄音)

傳真 ： 2915 1410

電子郵件 ： enquiry@labour.gov.hk

你亦可以透過互聯網路，找到勞工處提供的各項服務及主要勞工法例的資料。本處的網址是 <http://www.labour.gov.hk>。

你並可透過職安熱線 2739 9000，找到職業安全健康局提供各項服務的資料。

4 ADVICE FOR EMPLOYEES

Hearing conservation programmes are only likely to succeed in preventing hearing damage when there is co-operation between the proprietors and employees. To meet the requirements placed on you by the Regulation, you will need to: -

- (a) wear suitable ear protectors provided to you whenever you are in places where the Second or Peak Action Level might be reached, and every time you go into an area marked as an ear protection zone, and when you are within the specified distance operating the noisy machines; and
- (b) if you discover defects in an approved ear protector, report them immediately to your proprietor.

Your proprietor should warn you when your exposure might reach the First Action Level and provide you with suitable ear protectors if you want them. It is in your own interests to ask for them and to use them. If you think there is something wrong with your hearing - consult a doctor.

YOUR HEARING MIGHT DEPEND ON IT!

5 Useful Information

If you wish to enquire about this guidebook or require advice on occupational safety and health, you can contact the Occupational Safety and Health Branch through:

Telephone : 2559 2297 (auto-recording after office hours)

Fax : 2915 1410

E-mail : enquiry @labour.gov.hk

Information on the services offered by the Labour Department and on major labour legislation can also be found by visiting our Home Page on the Internet at <http://www.labour.gov.hk>.

Information on the services offered by the Occupational Safety & Health Council can be obtained through hotline 2739 9000.

Noise assessment Report

噪音評估報告

Factories and Industrial Undertakings (Noise at Work) Regulation

工廠及工業經營（工作噪音）規例

[section 3(3)]

[規例第 3(3)條]

Name of Industrial Undertaking : _____

工業經營名稱

Address : _____

地址

Date of survey : _____

測量日期

Survey made by : _____

測量員

Ref. No. : _____

檔案號碼

Occupation : _____

職業

Training/experience : _____

訓練/經驗

Item No. 項目號碼	Brief description of area/location machinery/plant activity/task 地區/地點 機器/廠房 活動/工作簡述	Noise level 噪音級數		Daily exposure period 每天暴露時間	L _{EP,d} dB(A) 分貝(A)	No. of employees exposed 暴露於噪音中的僱員數目	Description of ear protector (if provided) 描述聽覺保護器 (如有提供)	Description of demarcated ear protection zone (comment if not demarcated) 描述聽覺保護區的劃定 (若沒有劃定請評論)
		L _{Aeq,T}	L _{peak} (where appropriate 如適用)					

General comments : _____

一般評論

Instrument used : _____

使用儀器

Date of last calibration : _____

上次校準日期

Signature : _____

簽名

Date : _____

日期

Note : This report must be sent to Commissioner for Labour within 28 days of completing the assessment.

註：本報告必須在完成評估後 28 天內送交勞工處處長

NOISE-AR