

交通噪音評估 Traffic Noise Assessment

在眾多環境評估項目中，交通噪音評估是公眾關注項目之一。

現今有很多方法和工具來協助我們評估交通噪音。香港常用的路面交通噪音評估方法，是以英國交通部「計算路面交通噪音」文件所載的程序為基準。

這個評估方法對交通流量(如行車量及行車速度等)、路面、距離、地面效應(軟或硬地)、屏障及反射效應等，就參考噪音水平作出修正，從而對噪音作出評估。

路面交通噪音的計算單位，是交通量最高1小時當中有10%時間超逾既定噪音水平的聲級($L_{10}(1\text{小時})\text{dB(A)}$)^{*}。量度點是住宅外牆1米處。這樣量度道路交通噪音，是依據「計算路面交通噪音」而定，而其他國際環境噪音標準也普遍採用這做法。

作出評估時，一般須根據道路工程項目啓用後首15年內的設定交通情況或估計的最高交通量。

^{*}：分貝是量度聲音的單位。它是對數標度(logarithmic scale) 而不是線性標度(linear scale) 一般來說，減少3分貝即將噪音強度減弱約50% (相等於把交通流量減少50%)

Among those key items under the EIA, traffic noise assessment is one of the issues concerned by the public.

There are many methods and tools to assess traffic noise. The commonly adopted method in Hong Kong for the assessment of road traffic noise is based on the procedures given in the UK Department of Transport document "The Calculation of Road Traffic Noise (CRTN)".

The assessment method gives corrections to adjust the reference noise level for traffic flow (such as traffic volume and speed), road surface correction, distance, ground effect (soft or hard), barrier and reflection effects etc.

The road traffic noise is presented in terms of noise levels exceeded for 10% of the one-hour period for the hour having the peak traffic flow. The symbol is $L_{10}(1\text{hour})$ and the unit is dB (A)^{*}. The assessment point is taken to be at 1m from the external facade. This approach follows the CRTN and is commonly adopted in other international environmental noise standards.

Assessments are normally based on the design traffic conditions or the maximum traffic projections within 15 years upon operation of the road works.

^{*} : Decibel is the unit of noise level. It is measured in a logarithmic scale rather than a linear one. Generally speaking, decrease in 3dB will reduce about 50% of traffic noise (which is equivalent to reduction of 50% traffic flow).

更詳細有關環境影響評估的資料可以參閱以下環保署網頁：

More detailed information about Environmental Impact Assessment is available on the Environmental Protection Department's Website as follow:

<http://www.epd.gov.hk/eia/>