

**ENVIRONMENTAL PROTECTION DEPARTMENT
PRACTICE NOTE FOR PROFESSIONAL PERSONS**

Noise from Construction Activities - Non-statutory Controls

This Practice Note (PN) is written :-

- (i) to set out the assessment criteria as well as requirements relating to construction noise not currently controlled under the Noise Control Ordinance. These requirements will, however, form the basis of impending controls and are being incorporated in all Environmental Impact Assessments (EIA); and
- (ii) to serve as a guide to Engineers and others in meeting the requirement, of the relevant professional Institution, to take full account of environmental matters in the exercise of their professional duties.

Assessment Criteria

2. Noise at the facade of the following receivers during the period between 7 am - 7 pm, should not exceed :

<u>Receiver</u>	<u>Noise level, Leq(30min)* dB(A)</u>
Dwelling	75
School	70 (65 during examinations)

- * Note : Leq(30min) is a standard measure of noise level which means the continuous equivalent noise level over a 30 minute interval.

Noise Abatement Measures

3. A range of measures are available to ensure that the criteria are met. Local experience so far indicates that these measures fall largely into the following categories :-

(i) Scheduling of work

This includes minimizing noisy operations during examination periods; avoiding simultaneous operation of noisy equipment; retaining existing features that can act as a noise barrier until the last phase; and erecting, as early as possible, any new structures which will have the effect of screening noise sources. Such screens can reduce noise levels by 15 dB(A) or more.

(ii) Siting of facilities

Noisy equipment, such as emergency generators and water pumps, should always be sited as far as possible from noise sensitive receivers. Consideration should also be given to using structures such as site offices and stores as noise barriers.

(iii) Selection of quiet equipment

This is one of the most effective measures and is increasingly practicable because of the availability of quiet equipment. For example, the use of hydraulic concrete cutters and crushers in demolition work, instead of excavator-mounted percussive breakers, can achieve a noise reduction of up to 20dB(A) and totally remove the annoying impulsive nature of the latter. Similarly, the use of an hydraulic rock drill with a sound power level not exceeding 110 dB(A) can reduce noise by 18dB(A) when compared with a conventional crawler mounted pneumatic rock drill.

(iv) Use of purpose-built acoustic panels and enclosures

There are many situations where purpose-built acoustic panels or enclosures around construction site boundaries can effectively protect nearby residential developments, schools and other noise sensitive receivers. This has been the case for a number of tunnel and excavation projects as well as for concrete batching activities. The use of re-usable metal acoustic panels has been made more attractive recently with the government's requirement to minimize the use of hardwood hoarding.

(v) Provision of building insulation to schools

When it is impractical to further reduce noise affecting nearby schools, consideration should be given as a last resort to insulate the schools by providing improved windows and air-conditioning for the duration of the construction activities.

4. A construction noise impact assessment, carried out as part of the EIA for a project, will normally require specific measures such as those in paragraph 3 above to be written into contract documents.

Role of the Professional Person

5. Practising professionals are urged to consider noise reduction measures and include relevant requirements in contracts or specifications; site engineers should ensure that these practices are put into effect in order to protect the neighbouring community. It would often be appropriate to inform those adjacent to a construction site, in advance of the start of a project, the noise to which they may be exposed and the measures being taken to limit the nuisance. Experience has shown that such consideration for those adversely affected by a project can save much senior staff time in dealing with problems and lead to more trouble-free project implementation.

Advice from Environmental Protection Department

6. The Environmental Protection Department maintains a menu of contract conditions incorporating some of the measures in paragraph 3 which have been used in various Government projects. Interested professionals are welcome to contact Mr. Raymond CHAN, Principal Environmental Protection Officer (Noise Policy) at 594-6565.

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Addendum to the ProPECC Practice Note PN 2/93

Original	Amendments
<p>Para 6, last sentence</p> <p>“Interest professional are welcome to contact Mr. Raymond Chan, Principal Environmental Protection Officer (Noise Policy) at 594-6565.”</p>	<p>“Interest professional are welcome to contact the Principal Environmental Protection Officer (Assessment & Noise) at 2835-1581.”</p>