Draft

Draft Noise Guide for Local Government

NSW EPA

ENVIRONMENT PROTECTION AUTHORITY

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For further information on the matters discussed in this paper or to contribute to the development of the final document, contact Noise Policy Section, NSW Environment Protection Authority, phone (02) 9995 5000 or email info@epa.nsw.gov.au

Published by:
Environment Protection Authority
59–61 Goulburn Street
Sydney
PO Box A290
Sydney South 1232
Phone: (02) 9995 5000 (switchboard)
Phone: 131 555 (information and publications requests)
TTY: (02) 9211 4723
Fax: (02) 9995 5999
Email: info@epa.nsw.gov.au
Website: www.epa.nsw.gov.au

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Glossary

Ambient noise
The all-encompassing noise within a given environment. It is the composite of sounds from many sources, both near and far.

Background noise
The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is described using the L_{A90} descriptor (see below).

Community annoyance
Includes noise annoyance due to:

- characteristics of the noise (e.g. sound pressure level, tonality, impulsiveness, low-frequency content)
- characteristics of the environment (e.g. very quiet suburban, suburban, urban, near industry)
- miscellaneous circumstances (e.g. noise avoidance possibilities, cognitive noise, unpleasant associations), and
- human activity being interrupted (e.g. sleep, communicating, reading, working, listening to radio/TV, recreation).

Compliance
The process of checking that source noise levels meet with the noise limits in a statutory context.

dB
Abbreviation for decibel — a unit of sound measurement. It is equivalent to 10 times the logarithm (to base 10) of the ratio of a given sound pressure to a reference pressure.

dB(A) or dBA
Unit used for 'A-weighted' sound pressure levels. A-weighting is an adjustment made to sound-level measurement to approximate the response of the human ear.

Extraneous noise
Noise resulting from activities that are not typical of the area. Atypical activities may include construction, and traffic generated by holiday periods. Normal daily traffic is not extraneous noise.

Feasible and reasonable measures
Feasibility relates to engineering considerations and what can practically be built. Reasonableness relates to applying judgement to arrive at a decision, taking into account noise mitigation benefits, cost of mitigation, community views and noise levels for affected land uses.

L_{A90}
The A-weighted sound pressure level that is exceeded for 90 per cent of the time over which a given sound is measured. This is considered to represent the background noise (see above).

L_{Aeq} (equivalent continuous noise level
The level of noise equivalent to the energy average of noise levels occurring over a defined measurement period.

Most affected location(s)	Locations that experience (or will experience) the greatest noise impact from the noise source under consideration. In determining these locations, one needs to consider existing background levels, noise source location(s), distance from source (or proposed source) to receiver, and any shielding between source and receiver.
Noise limits	Enforceable noise levels that appear in Noise Control Notices.
Noise-sensitive land uses	Land uses that are sensitive to noise, such as residential areas, churches, schools and recreation areas.
***Protection of the Environment Operations Act 1997* (POEO Act)**	An Act that consolidates air, water, noise and waste requirements into a single piece of legislation. POEO Act repeals and replaces (among other Acts) the *Noise Control Act 1975*. It contains the Noise Control Notice, Prevention Notice, Compliance Cost Notice and Noise Abatement Directions.
POEO (Noise Control) Regulation 2000	The regulation that provides appropriate controls on specific community noise situations including noise from individual motor vehicles, vessel noise and a range of neighbourhood activities such as use of power tools, alarms, air conditioners and amplified music.
Receiver	The person who is hearing the noise.
Sleep disturbance	Awakenings and disturbance to sleep stages.
Tonality	Noise containing a prominent frequency and characterised by a definite pitch.

Overview of this document

This *Noise Guide for Local Government* aims to provide practical guidance to local government authorised officers in the day-to-day management of local noise problems and in the interpretation of existing policy and legislation. This Guide focuses on how to assess and manage noise issues dealt with by local council officers, such as neighbour-to-neighbour problems and those resulting from commercial or industrial premises.

Importantly, the Guide is also aimed at planners. It outlines planning considerations which can have a significant bearing on prevention of future noise problems.

The guide is advisory (non-mandatory) in nature and council officers are encouraged to use it to develop council procedures to deal with noise issues relevant to local circumstances.

Part 1 — Framework for noise control outlines the legal framework for noise control and the distribution of responsibility for dealing with noise problems.

Part 2 — Noise assessment addresses the four key noise assessment procedures that are important for authorised officers to apply when deciding if noise is a problem. These tools include assessments by an authorised officer of time of use and audibility, duration of alarms, offensive noise and noise measurement.

Part 3 — Noise management principles describes the range of mitigation strategies which will prevent and minimise noise impacts from a planning and management perspective.

Part 4 — Regulating noise impacts identifies the statutory processes that are available to avoid or control noise.

Part 5 — Case studies illustrates how the assessment and management tools available can be integrated to help control some common noise problems.

There is an alphabetical index at the back of this guide to help with quick access to a particular noise issue. The text includes cross-references to other relevant material. A glossary is included at the front of the document to define commonly used terms.

In some cases, assessing and applying suitable mitigation to noise problems is not straightforward. The following guidelines may be of help when dealing with more complex noise problems:

> ***The NSW Industrial Noise Policy*** — specifically aimed at large industrial developments but also provides guidance on measuring and assessing noise from small commercial and industrial premises regulated by councils.
>
> ***NSW Environmental Criteria for Road Traffic Noise*** — outlines criteria for assessing road traffic noise from road developments with the aim of promoting the consideration of noise pollution impacts early in the planning of new roads and freeways.

This *Noise Guide for Local Government* does not cover in detail the powers that are the province of the NSW Environment Protection Authority (EPA), Police or Waterways Authority. These include Police and EPA noise control powers for motor vehicles operating on public roads and Waterways Authority powers for noise from vessels.

Part 1 Framework for noise control

1.1 Challenges in managing noise

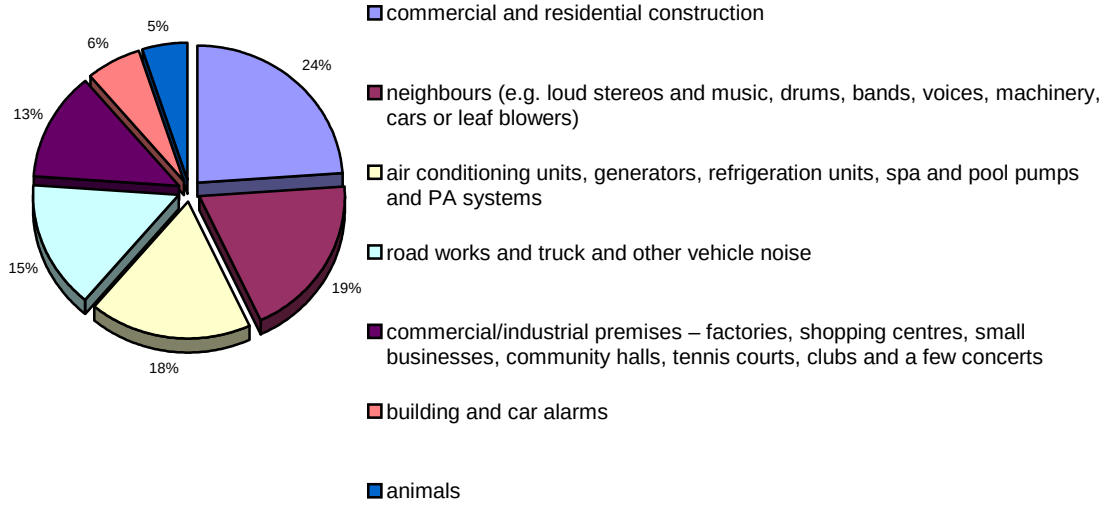
Noise affects most of us at some time. We live in a society where noise levels tend to be increasing, along with the potential for disruption to our work, home life or recreational activities. There are also significant variations in the way individuals react to noise. Some people may be more annoyed than others for any given noise level. Noise may become annoying if it intrudes into people's awareness, is heard against their wishes or offers them no benefits. Noise can disrupt people's activities and rest by interfering with speech, study, leisure or sleep.

Approximately 14% of all calls to the EPA Pollution Line relate to noise issues. In 2001–2002, noise issues made up:

- 10% of inquires relating to activities regulated by the EPA
- 27% of inquires relating to activities regulated by local government
- 11% of all requests for information.

The following chart shows a breakdown of the calls relating specifically to noise issues regulated by local government:

EPA Pollution Line calls relating to issues regulated by local government



An individual's response to noise is subjective and can depend on specific circumstances, such as time of day and the type of activity being undertaken. This can make it difficult to determine a noise level that is satisfactory to all people, so it is important to ensure there is an independent and unbiased assessment of noise problems. This will help find the balance between being able to conduct legitimate activities that may emit noise and the responsibility to minimise noise. Where noise is a problem it is expected that whoever is creating the noise should take all reasonable and feasible measures to minimise noise.

Councils and police have a key role in managing local noise problems by providing an impartial and fair assessment of what level of noise is reasonable, taking into consideration the nature of the activity, the surrounding area and number of people likely to be affected.

Resolving noise problems successfully will often rely not just on identifying the problem and developing a suitable noise management strategy, but also on managing the complaint effectively. This is important so that the complainant sees that action is being taken and has realistic expectations about the end result (i.e. noise may still be audible) and the time it will take to resolve the problem.

1.2 The noise management spectrum

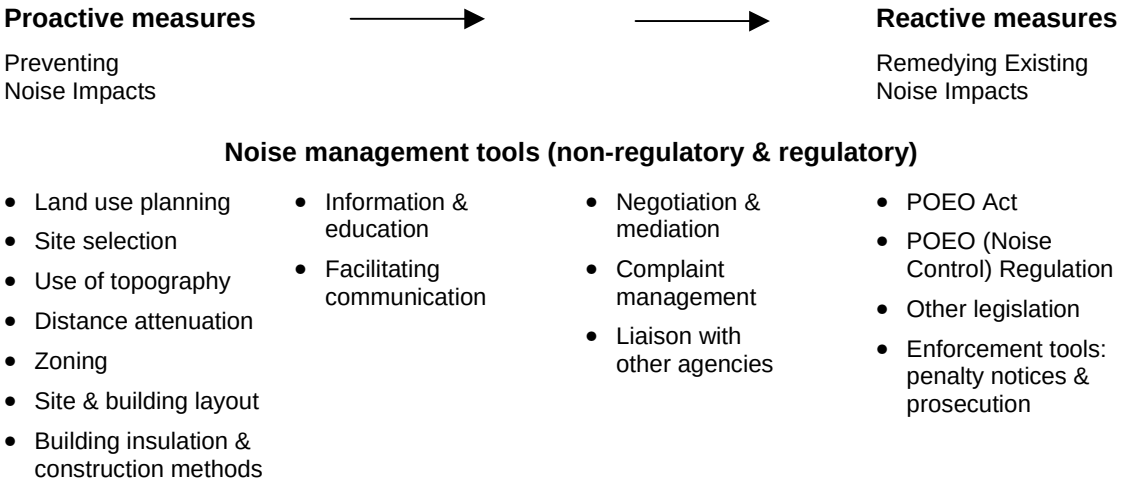
Successful noise management ranges over a spectrum of considerations and options. At one end of the spectrum is prevention using long-term strategic approaches that aim to avoid or minimise potential noise impacts before they occur. Land use planning has a key role in helping to prevent potential noise impacts, both at the strategic planning level for an area and at a project specific level.

At the other end of the noise management spectrum is the need to remedy existing noise impacts that are unacceptable and causing disturbance to the community. The *Protection of the Environment Operations Act 1997* (POEO Act) provides regulatory tools for managing noise impacts from new and existing noise-producing developments. Of course, non-regulatory approaches also have an important role to play in addressing existing local noise problems and should be used before applying regulatory mechanisms.

The primary obligation to mitigate noise on neighbouring properties lies with the person making the noise, but where noise mitigation options have been exhausted the only practical means to reduce noise impacts may be to incorporate mitigation measures into noise-sensitive developments.

Figure 1 illustrates the spectrum of options available to prevent and manage noise impacts. Options located in the middle of the spectrum can be used both to prevent noise impacts and to manage existing problems.

Figure 1 — Noise management spectrum



1.3 Legal framework for noise control

The *Protection of the Environment Operations Act 1997* (POEO Act) and the Protection of the Environment Operations (Noise Control) Regulation 2000 provide the legal framework and basis for managing unacceptable noise.

The POEO Act:

- identifies responsibility for regulating noise
- defines 'offensive noise'
- provides a range of tools to address noise, including a Noise Control Notice, Prevention Notice, Noise Abatement Direction and Noise Abatement Order
- makes it an offence to do various things that cause the emission of noise and to breach the conditions of a notice or order.

The POEO Act defines the **appropriate regulatory authority** responsible for regulating various activities. The Act also gives powers to particular classes of people, for example council officers, EPA and Waterways Authority officers and Police officers. Their powers depend on whether they are **authorised officers**, **enforcement officers** or **authorised persons**. It is important to note the differences between appropriate regulatory authorities, authorised officers, enforcement officers and authorised persons.

The **appropriate regulatory authority** (ARA) is the body responsible for regulating particular activities and can issue Prevention Notices and Noise Control Notices for these activities. Section 6 of the POEO Act specifies which body is the ARA for different activities. The POEO (General) Regulation 1998 also declares other bodies (such as the Waterways Authority) to be ARAs for particular activities.

Authorised officers are people who are appointed by an ARA under section 187 of the POEO Act, and act on its behalf in investigating alleged environmental problems relating to activities regulated by the Act. Authorised officers have a range of investigatory powers and can issue Noise Abatement Directions and other notices provided for by the POEO Act or Regulations. The POEO Act provides authorised officers with powers to:

- require information or records (Part 7.3)
- enter and search premises (Part 7.4)
- question and identify persons (Part 7.5).

Section 187 of the POEO Act enables a local council to appoint officers and employees of other local councils (as well as its own officers and employees) as authorised officers for the purposes of the Act, in relation to its area. This is to facilitate activities under the Act that require action across local government boundaries.

Enforcement officers are people who are authorised under clause 6(2) of the POEO (Penalty Notices) Regulation 1999 to issue penalty notices for offences listed in Schedule 1 of that Regulation. An enforcement officer can use all the investigatory powers of an authorised officer (i.e. a person appointed under section 187) but only for the purposes of issuing a penalty notice.[1]

[1] The POEO Act and POEO (Penalty Notices) Regulation previously referred to people who were authorised to issue penalty notices as 'authorised officers'. However, to differentiate them from people appointed as 'authorised officers' under section 187 of the POEO Act, the new term 'enforcement officer' was introduced from 1 July 2002 to refer to a person who is authorised to issue penalty notices. It is expected that ARAs will commonly appoint a person as both an 'authorised officer' and an 'enforcement officer', however, there may be occasions on which an ARA decides it is appropriate to appoint a person as one but not the other.

Authorised persons are people who can issue Noise Abatement Directions. They are usually police officers and people who an ARA has appointed as an authorised officer under section 187 of the POEO Act. Police also have powers to regulate noisy motor vehicles, noisy recreational boats and to seize noise-making equipment.

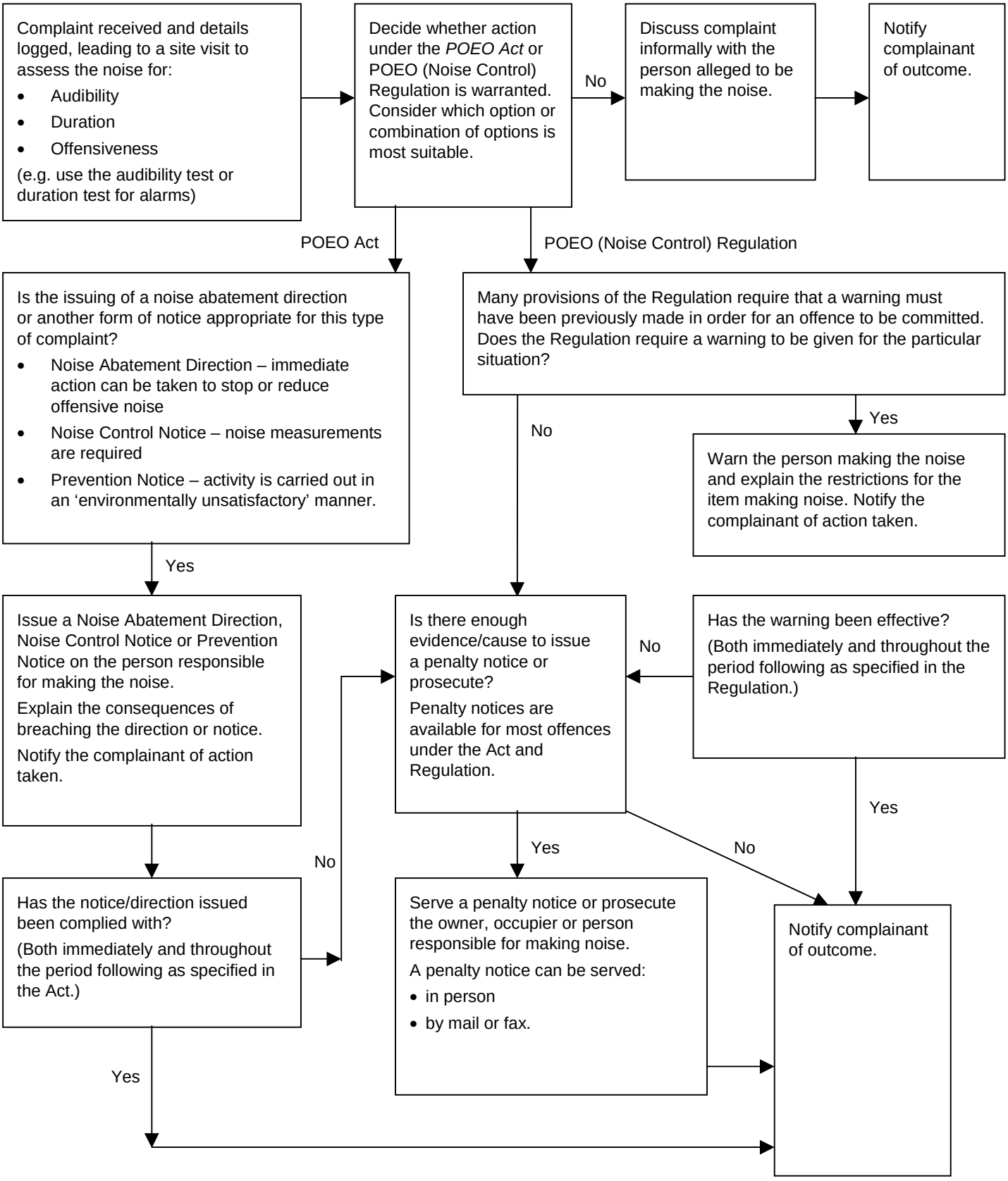
The **POEO (Noise Control) Regulation 2000** contains specific provisions relating to common noise problems, including restriction on the use of:

- domestic air conditioners, pool pumps, power tools etc.
- building and car alarms
- individual motor vehicles, including car sound systems and defective mufflers
- recreational marine vessels, including sounds systems on vessels and the use of sirens.

The following flowchart (Figure 2) identifies important steps in investigating a noise complaint and the regulatory options available to resolve noise problems.

A detailed description of the types of notices, directions, orders and penalty notices that can be used in relation to noise issues is contained in Part 4 – Framework for noise control.

Figure 2 — Investigation of noise complaints



1.4 Roles and responsibilities in noise control

Essentially, local councils have powers to address:

- noise from commercial and industrial operations that are not required to hold a licence from the EPA (and that are not carried out by a State or local public authority), and
- neighbourhood noise matters from residences, vehicles used off-road and vehicle alarms and sound systems.

Police also have powers to deal with neighbourhood noise and are typically the main agency for control of noise from late night parties, where safety may be a concern or where council officers are not available.

The Waterways Authority can regulate noise from motor vessels and premises involved with vessel repair under Part 8.6 of the POEO Act.

The EPA handles noise from premises that are required to hold an environment protection licence and activities carried out by a State or local public authority. Activities that require a licence are listed in Schedule 1 of the POEO Act and typically include large-scale industrial operations.

Under separate legislation, the Liquor Administration Board (LAB) licenses premises such as hotels and clubs that sell alcohol. LAB licences typically include conditions to manage noise.

The EPA, Police and NSW Roads and Traffic Authority (RTA) all have a role in controlling noise from motor vehicles. The EPA, Police and RTA periodically conduct joint campaigns against noisy motor vehicles. The RTA test heavy vehicles for noise and the EPA accept public complaints about noisy motor vehicles via the Pollution Line, phone 131 555. Councils can also regulate offensive noise from motor vehicle sound systems.

Commonwealth agencies have the primary responsibility to manage noise from airports and aircraft. The main Commonwealth agency is Airservices Australia who run a noise inquiry and complaint line on 1300 302 240. Councils that operate airports also have a role in managing aircraft noise.

The distribution of responsibility between government bodies for controlling common noisy activities is outlined in Table 1.

Table 1 — Regulatory authorities for noisy activities

Activity	Local Council	Police	Waterways Authority	NSW EPA	LAB	RTA	Common-wealth
Premises not licensed by the EPA under POEO Act – non-scheduled industrial/ commercial premises (e.g. small factories & shops)	■						
Neighbourhood noise & noise from residential premises (e.g. animals, music, power tools etc.)	■	■					
Motor vehicles in off-road locations (e.g. trail bikes & vehicle sound systems)	■	■					
Marine vessels & associated premises including jetskis		■	■				
Recreational activities (e.g. target shooting, open air concerts & motor sport)	■						
Hotels & licensed premises	■	■			■		
Motor vehicles on roads (including mufflers)		■		■		■	
Premises licensed by EPA Schedule 1 of POEO Act (scheduled premises)				■			
Public Authority activities (e.g. utilities, Olympic Park etc.)				■			
Commonwealth activities (e.g. defence facilities)							■
Airports	(Councils that operate airports)						■

1.5 Guidance for managing noise problems

The *NSW Industrial Noise Policy* and the *NSW Environmental Criteria for Road Traffic Noise* provide guidance about assessing and managing noise sources that councils regulate. The *NSW Industrial Noise Policy* is mainly aimed at large industrial developments, however, it also provides some guidance on the measurement and assessment of noise from small commercial and industrial premises that are regulated by councils. Examples of situations where the *NSW Industrial Noise Policy* may be helpful include noise from a supermarket refrigeration plant, noise from a panel beater's or cabinet maker's workshop, or even a noisy pool pump or air conditioner operating during the day.

Rare or one-off events, or situations where residential premises generate noise, generally do not fall under the *NSW Industrial Noise Policy*. These events can include motor sport events, open-air concerts, gas scare guns, frost fans and target shooting ranges. This Guide will help with managing these sorts of noise problems. The case studies in Part 5 illustrate particular approaches that can be taken in these special situations.

It may be appropriate for councils to develop their own policy or guideline for common sources of local noise in their own area, so that local preferences and community expectations can be taken into account. This is especially important where a noisy activity plays a key role in the local economy. Examples of council policy and guidelines for a specific noisy activity include:

- Sydney City Council has developed a policy on construction noise and a guideline for noise from spruikers in shopping centres
- Griffith Council has developed a policy for the use of frost fans in the area
- Cessnock Council has addressed noise in a Development Control Plan for their vineyard district.

Developing a guideline or policy to address specific noisy activities can help provide certainty for people engaging in a noisy activity and for the local community. It can establish realistic and reasonable expectations for noise levels and how the activity should be carried out. When developing a guideline or policy for a specific activity it may be helpful for council to get input from the local community and any relevant industry association.

Factors that council may need to consider in developing a guideline or policy for a specific noisy activity include:

- how the noise should be measured to capture annoying characteristics, for example measuring the maximum noise level (L_{Amax}) or the equivalent continuous noise level (L_{AeqT})
- the number of events (per week or per year)
- operating times (day, evening or night)
- complaint management procedures for the operator
- a noise monitoring plan for the operator
- best management practices for the activity
- community views
- socio-economic benefits.

Part 2 Noise assessment

A noise assessment is an examination of the nature and characteristics of a noise. A noise assessment may involve aural factors that are just perceptible, such as:

- verifying the location of the noise source
- its audibility at certain locations
- the time the noise is made
- its duration, and
- the reported affect it has on people.

A noise assessment may extend to the measurement of the noise level and its physical characteristics.

Noise assessments are important in situations where the POEO (Noise Control) Regulation will be applied. The Regulation relies on an assessment of noise based on its **audibility, time of day, duration or offensiveness** depending on the situation.

The POEO Act does not require measurement of noise to determine whether it is offensive, or whether a Noise Abatement Direction can be served, but measurement can help to inform a decision about what action is necessary. However, noise measurements are generally required before a Noise Control Notice is issued.

From the outset, it is important to establish what the purpose or possible outcome of a noise assessment will be. This will also make it easier to ensure that all necessary information is collected during the assessment.

This part of the Guide discusses the means by which an authorised officer would judge whether a noise is audible, excessively long in duration or offensive. It also outlines the techniques for measuring noise where this is desirable or necessary to support decision-making.

2.1 Times of use and audibility of noise

The POEO (Noise Control) Regulation 2000 restricts the times of operation for equipment such as motor vehicles on residential premises, refrigerated vans, power tools, swimming pool pumps, domestic air conditioners, musical equipment and marine vessels (see Noise Control Regulation clauses 15, 16, 32, 50, 51 and 52).

Noise from these items should not be audible inside a habitable room of any other residence. A habitable room means any room other than a garage, storage area, bathroom, laundry, toilet or pantry in a dwelling, whether or not the windows or doors are open or closed.

Audibility is simply whether the noise from the equipment can be heard in a habitable room in any other residential premises. Authorised officers giving the warning under the Regulation need to satisfy themselves that the noise is audible in the habitable room and is coming from the alleged source. This may involve observing the noise inside the affected residence or external to the residence, and seeking signed statements from the neighbour regarding audibility of the noise inside the residence. (See also ‘What Constitutes an Offence’ in section 4.3.1, *Miscellaneous articles*.)

The purpose of these clauses in the Regulation is to minimise noise when many people are sleeping or resting.

2.2 Duration of noise for alarms

The POEO (Noise Control) Regulation specifies time limits that car and building intruder alarms may sound for (see Section 4.3.2, Alarms for details). This is the duration test and simply means an offence occurs where the alarm has sounded for longer than the time permitted in the Regulation.

The Regulation also states that alarms that sound intermittently can be taken to sound continuously. For example, a car alarm that sounds for 30 seconds and cuts off for one minute, and sounds again for 30 seconds, is taken to have sounded for more than the 45 seconds permitted for car alarms manufactured after September 1997.

2.3 Offensive noise

The concept of offensive noise is applied in both the POEO Act and the POEO (Noise Control) Regulation. Offensive noise is defined in the POEO Act as being noise:

(a) that, by reason of its level, nature, character or quality, or the time at which it is made, or any other circumstances:

(i) is harmful to (or is likely to be harmful to) a person who is outside the premises from which it is emitted, or

(ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted, or

(b) that is of a level, nature, character or quality prescribed by the regulations or that is made at a time, or in other circumstances, prescribed by the regulations.

The definition of offensive noise is relevant when issuing a Noise Abatement Direction (section 276 POEO Act) and also for relevant clauses of the Regulation (i.e. clause 14 — Vehicles used off-road; clauses 17 and 17A — Motor vehicle sound systems; clause 30 — Use of engine-powered marine vessels).

Determining whether noise is offensive noise relies on the unbiased judgement of the authorised officer and consideration of the POEO Act definition. It is important for the authorised officer (or other person assessing the noise) to account for any personal preferences or bias and to put them aside when making an assessment of noise. An example of this may be personal tastes in music.

The following list of considerations provides some guidance on the factors that may be relevant in deciding if noise is offensive. The list is not exhaustive nor is it implied that all of the factors listed must be met before a noise is offensive. In most cases the process of considering the listed factors will be sufficient to decide whether or not a noise is offensive and why.

Noise measurements are not required in order to assess whether a noise is offensive. However, noise measurements can provide supporting evidence if the case is prosecuted or where a penalty notice is likely to be challenged.

Offensive noise considerations

When deciding whether noise is offensive an authorised officer needs to consider the definition of offensive noise in the POEO Act. The following factors also may be relevant in helping to decide whether any noise is offensive noise:

- Is the noise loud either in an absolute sense or relative to other noise in the area?
- Is the noise well above the background noise level?
- Does the noise include any tones, impulses or any fluctuations in volume?
- Does the noise occur at times when unreasonable interference with comfort or repose occurs or is likely? For example, during evenings or at night?
- Is the noise affecting or likely to adversely affect people's activities? For example, conversation, reading, studying, watching TV or sleeping?*
- Is the noise typical of activities conducted in the area?
- Are the volume, duration and character of the noise typical of the type of activity in question?
- How many people are affected?

* Statements should be taken from complainants about the effects the noise is having on them. Where statements help in an authorised officer's determination of offensive noise then the person giving the statement should be told about the potential for a court appearance.

2.4 Noise measurement

Noise measurements can help confirm when noise is a problem and are appropriate for assessing ongoing noise. They also allow a comparison with the existing background noise levels. They may also be helpful in checking compliance with a notice or a condition of development consent.

Noise Control Notices specify a noise limit not to be exceeded at a specified location. Noise measurements are therefore usually necessary to establish an acceptable noise limit that can be specified in the notice (an exception is where a noise control notice is used to specify an absolute noise level for a future event, such as a concert). Subsequent noise measurements are required to check that the noise limit is being met while the activity is being undertaken.

Any noise measurements taken in relation to a Noise Control Notice or for compliance purposes may be used as evidence to prove a breach of a notice or development consent.

It is important to remember that noise measurements can be challenged on various technical grounds if introduced as evidence in court, including:

- validity of calibration certificates for the measuring equipment
- field calibration and measurement location, and
- the way the measurement was taken (e.g. effects of weather, equipment parameter settings, etc.).

It is important that authorised officers responsible for taking noise measurements have been appropriately trained and maintain this knowledge over time.

Noise measurements can identify whether noise is intrusive. This is important in determining appropriate levels for a Noise Control Notice. Both the noise source and the background noise levels need to be measured.

Appendix 2 outlines techniques for carrying out simple noise level calculations, such as noise level addition and distance attenuation.

2.4.1 Intrusive noise

A noise source is generally considered to be intrusive if noise from the source, when measured over a 15 minute period, exceeds the background noise by more than 5 dB(A). The intrusiveness criterion can be summarised in more detail as follows:

Intrusiveness criterion

$L_{Aeq,\ 15\ minute} \leq$ rating background level plus 5 dB(A)

Where:

$L_{Aeq,\ 15\ minute}$	represents the equivalent continuous (energy average) A-weighted sound pressure level of the source over 15 minutes. $L_{Aeq,\ 15\ minute}$ is to be assessed at the most-affected point on or within the residential property boundary — or, if that is more than 30 metres from the residence, at the most-affected point within 30 metres of the residence.
Rating background level	is the short-term background level to be used for assessment purposes.

In most situations short-term operator-attended noise measurements will be most appropriate for council officers investigating noise complaints. Using this method (detailed below) will allow the officer to:

- establish the difference between the background noise level and the noise source being investigated, and
- check compliance with noise requirements for a premises.

Longer-term measurement procedures (e.g. those used for planning and development purposes) are provided in the *NSW Industrial Noise Policy*.

2.4.2 Short-term noise measurement procedure

1 Decide when the noise is representative of the maximum level of noise from the activity and take measurements at this time. It is also important to measure background noise when it is representative of minimum levels that occur during the time the activity would typically be conducted.

2 Calibrate the noise monitoring equipment before and after each set of noise measurements.

3 Set the meter to ‘Fast’ time weighting and ‘A’ frequency weighting.

4 Do not take measurements when it is raining or when the average wind speed at microphone height exceeds 5 metres/second. (Typically at a wind speed of 5 m/s, leaves and small twigs would be in constant motion and the wind would extend a small flag).

5 Hold the sound-level meter at arm's length or set it up on a tripod so the microphone is 1.2 to 1.5 metres above the ground and, where feasible, 3 to 5 metres from walls, buildings and other reflecting surfaces. The location of vegetation also needs to be considered because noise levels can be increased locally due to even a light breeze rustling leaves. Care must be taken not to make noise such as conversation that will affect the readings.

6 **Background noise measurement** should only be done at times or locations unaffected by noise from the source or activity under investigation. Measure the background noise level continuously for 15 minutes, excluding all distinct extraneous noises. If extraneous noise is present, pause the meter when this occurs or choose another measuring time or restart the measurement at another location. Extraneous noise is noise resulting from activities that are not typical of the area. Atypical events may include construction and traffic generated by holiday periods or special events such as concerts or sporting events. Normal daily traffic is not considered to be extraneous noise.

The background noise level for assessment purposes is the $L_{A90,\ 15\ minute}$ level produced by an integrating sound-level meter.

Note: If more than one valid noise measurement of the background noise for a location is obtained, adopt the lowest level as the background noise level. If the measured background level is less than 30 dB(A), then the background noise level is taken as 30 dB(A).

7 Measure the noise from the noise source under investigation continuously for 15 minutes, excluding all distinct extraneous noises as above. The noise level of the source under investigation is measured as an $L_{Aeq,\ 15\ minute}$ level and ideally should be measured at the point where the impact occurs. If there is uncertainty about whether the noise being measured includes extraneous noise, move the sound-level meter closer to the noise source to a point where the source clearly dominates and note this new position. Reading values may then need to be extrapolated back to the position of the affected resident.

Use of correction factors: The particular characteristics of a noise, such as an audible impulsive or tonal component, may result in a higher level of disturbance and annoyance than would be suggested by the measured sound pressure level alone. In this situation, a correction factor should be applied to the measured noise level. For more information on the use of correction factors see Appendix 1 (which reproduces section 4 of the *NSW Industrial Noise Policy).*

8 Check the field calibration at the end of the monitoring period in accordance with Australian Standard 1259 and Australian Standard 2659. Re-monitoring may be required where there is a calibration drift greater than that allowed by the Standards.

2.4.3 Choosing the appropriate noise descriptor

In most situations, the L_{AeqT} is the most appropriate noise descriptor to use when measuring noise impacts. The L_{AeqT} is the equivalent continuous (average energy) level of the noise under investigation and is used in assessing noise impacts against existing limits and also to identify an acceptable noise limit that should be met. In certain circumstances, noise descriptors other than the L_{AeqT} may be more appropriate for measurement and assessment or compliance purposes, depending on the characteristics of the noise source. For example, where the noise emissions from a source of interest are constant (e.g. fan noise, domestic air conditioner, or pool pump) and the ambient noise level has a degree of variability (e.g. due to traffic noise), the L_{A90T} descriptor may adequately describe the noise source and may be much easier to measure or assess. The aim is to ensure that the descriptor chosen adequately represents the source noise rather than the other extraneous noise in the environment.

Where sleep disturbance is being assessed, the $L_{A1(60\ seconds)}$ or L_{Amax} noise level is most appropriate, and the measurement position might be outside the bedroom window.

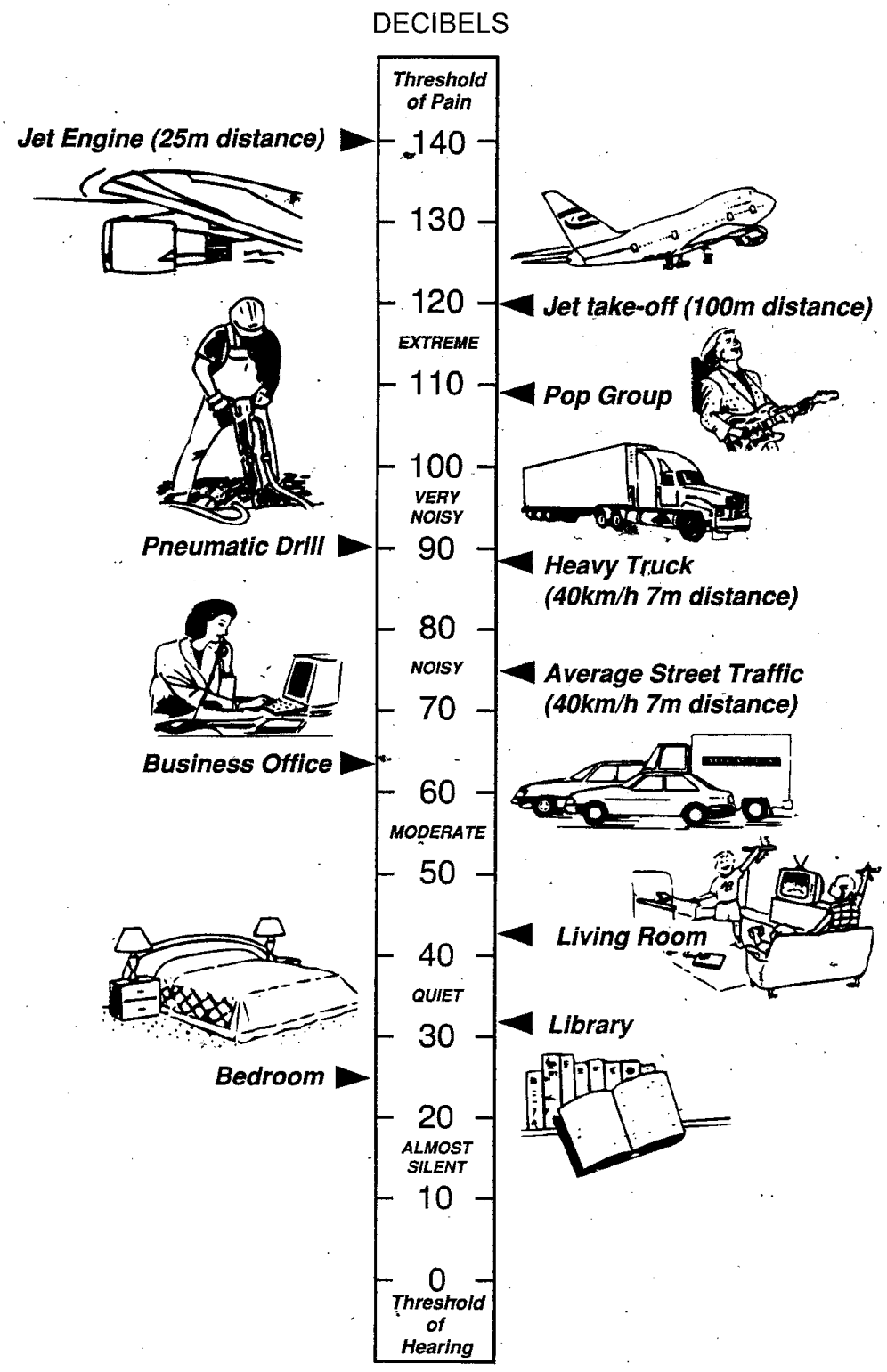
Where the noise descriptor chosen for noise measurement is not the L_{AeqT}, the reasons for the variation should be set out in any noise assessment report. Modern integrating sound level meters can measure values for a number of descriptors, including L_{A1T}, L_{AeqT} and $L_{A90T.}$.

In measuring the level of the noise source the L_{Aeq} descriptor is now used. Prior to the introduction of the *NSW Industrial Noise Policy* in 2000, the L_{A10} descriptor was used. (L_{A10} measures the level exceeded for 10% of the time.) The reasons why the L_{A10} descriptor has been superseded are:

- L_{Aeq} is supported as a better measure of the affect of noise (e.g. the World Health Organisation uses L_{Aeq})
- There is a general worldwide move towards the use of L_{Aeq} as the preferred descriptor of source noise for most situations.
- L_{Aeq} is a measure of energy and can be mathematically manipulated, while L_{A10} is a statistical descriptor which cannot be accurately added or subtracted from other L_{A10} measures.

Figure 3 illustrates some common noise sources and a comparison of their typical noise levels.

Figure 3 — An illustrated comparison of common noise sources



Source: *Road Traffic Noise Taskforce Final Report*

Part 3 Noise management principles

3.1 Preventing noise impacts

When managing noise impacts, prevention is always better than cure. Resolving noise problems after they occur may not always be possible and is often difficult and costly. It is best to anticipate, avoid or manage potential noise impacts as early as possible in the planning process. Noise impact assessment and management should be incorporated into processes for making land use planning decisions and should be considered at the earliest stage of the land use planning process.

3.1.1 Land use planning and preventing noise impacts

Land use planning and environmental legislation have complementary roles. Effective land use planning may help prevent potential noise impacts before they occur.

By avoiding the co-location of noise-sensitive and noise-producing premises, noise problems can often be prevented. Where this is not possible noise controls need to be incorporated into new noise-producing developments, and mitigation measures may be prudent for new noise-sensitive developments (including residential areas, schools, hospitals, nursing homes and places of worship).

A multidisciplinary approach

The following people have a key role to play in preventing and managing noise impacts:

- **Strategic planners** should consider the potential noise impacts of different land uses in developing a strategy for an area. Planning instruments or policies should be developed to provide a consistent approach to addressing potential noise impacts. This is particularly important where an important local industry has noisy aspects and there is a need to balance noise impacts and the role of a local industry in an area.
- **Development control (statutory) planners** should consider potential noise impacts during the development application phase for new land uses. This should apply to both noise-producing and noise-sensitive activities.
- **Industry and developers** should consider noise impacts in their development proposal and operating procedures so that noise impacts are minimised.
- **Councillors** have an important role as decision-makers in many development and land use planning instruments.
- **Environmental health and enforcement officers** should provide support and advice to planners and councillors in relation to existing and future noise impacts and advice on individual development applications where noise impacts may occur.
- **Transport corridor regulators** such as the RTA, local government and Rail Infrastructure Corporation.

Changing land use patterns in an area can sometimes lead to new noise impacts or can exacerbate existing noise impacts. This can occur in both rural and urban areas due to:

- new residential development located close to existing noisy activities
- new or intensified noisy activities close to existing residential areas
- changing expectations of residents about the amenity of a local area.

Common noisy activities include commercial or industrial activities, main roads, rail lines and some entertainment facilities.

Land use planning instruments

Land use planning instruments can include Local Environment Plans (LEPs) and Development Control Plans (DCPs) that can identify:

- areas where existing noise levels are already high, such as near an existing noisy industry, a busy road or a rail line
- acceptable noise criteria (internal/external) for noise-sensitive developments (e.g. setting acceptable noise levels for inside residential dwellings)
- acceptable performance criteria for noise-sensitive developments, such as specifying setbacks, boundary walls, solid balconies and window glazing
- activities that are likely to be noisy, and
- circumstances where an acoustic report may be required.

Examples of councils who have addressed noise in land use planning instruments include:

- Sydney City and North Sydney Councils both have a Development Control Plan addressing noise intrusion for residential apartments in commercial areas.
- Cessnock Council has a Development Control Plan which addresses potential noise impacts from different activities in the vineyard district.
- The Southern Sydney Regional Organisation of Councils developed a model Development Control Plan for road and rail noise impacts. The Development Control Plan provides acceptable noise criteria for noise-sensitive development and provides a process for compliance.

Other councils have prepared policies or guidelines that let developers know the information council will require for the development application before giving consent. These have an important role to play in seeking to balance local activities and potential noise impacts. Councils can also implement noise control measures as part of the development application for subdivisions and for individual developments, and may include specific conditions of consent to address noise issues. Examples include:

- Mulwaree Shire and Liverpool Councils, who separately developed guidelines for poultry industries, including the management of noise
- Griffith City and Leeton Shire Councils, who each have a policy on frost fans.

3.1.2 Addressing noise impacts in the planning process

There are generally three stages of development and planning where potential noise impacts can be considered and addressed. These are:

1 **The initial planning stage** — A greenfield (undeveloped) site offers the greatest management flexibility to zone industrial and noise-sensitive land uses. This is the point where compatibility of different land uses should be considered. During the initial planning stage it may be possible to identify the potential for land use conflict due to noise, and to develop management strategies to address these. Clear goals for new noisy activities (industry) can be developed that provide an equitable share of noise while protecting the amenity of nearby (planned or existing) residential areas.

   An example of where this approach has been used successfully is the Ingleburn industrial estate at Campbelltown. Noise goals were developed for the whole of a new industrial subdivision. An equitable share of the total noise goal was then allocated among the industrial lots within the subdivision. Some activities created more noise than others did and overall the total noise goal was maintained, helping to protect the noise amenity of a nearby residential area.

   This approach was applied as part of the Greystanes Precinct Plan, a significant redevelopment area in Western Sydney, which incorporates a new industrial area and a new residential area. Other examples of where this approach has been applied include the Glendenning industrial estate at Blacktown, Braemer industrial estate at Mittagong and the Steel River development at Newcastle.

2 **The subdivision stage** — When a commitment has already been made to locating residential and industrial land use areas close to one another, but development has not started, there is an opportunity to design the internal subdivision layout to minimise noise impacts. This may apply to new residential or new industrial development. Noise mitigation strategies that can be applied at this stage of development include:

   - using the natural topography to prevent line of sight between the noise source and residential areas and thus block direct propagation of noise
   - locating activities that are not noise sensitive such as commercial areas and parkland between residences and the noise source
   - orienting dwellings so that living areas face away from noise sources, and
   - defining areas affected by noise where building design needs to incorporate noise mitigation. (An example is the Shellcove residential development in Shellharbour Council area, which is alongside an existing quarry access road.)

3 **The building design stage** – Noise control measures can also be applied to individual buildings to ensure internal noise levels are acceptable. It is far more cost effective to install appropriate noise insulation at the building stage, rather than later adding it to a finished building. Internal noise can also be minimised by:

   - locating living areas away from the area most exposed to a noise source, or
   - using thick or double-glazed windows, solid walls and doors, and window and door seals.

   Similar approaches can be applied to prevent noise escaping from buildings housing noisy activities.

Site layouts for premises with noisy activities should consider using building structure to shield noisy operations and should locate areas of access to the site or buildings away from noise-sensitive areas.

Acoustic reports as a noise management tool

Acoustic reports have an important role to play in both preventing and remedying noise problems. It is often advisable for people who are planning activities that have the potential to cause noise impacts to seek professional advice on how to prevent, minimise or control noise impacts.

Requesting a noise report as part of the development application process can help council in its decision-making and ensure that appropriate control measures are integrated into the development.

Situations where an acoustic report may be needed include:

- where required by a planning instrument or council policy
- where a new development is proposed that will create significant noise (e.g. new industry, or commercial premises with refrigeration, air conditioning or exhaust equipment)
- where a new noise-sensitive development is proposed in an area where existing noise sources are present (e.g. an existing industrial site, main road or rail line is located nearby)
- where a new development will generate a significant amount of traffic.

It is recommended that a suitably qualified acoustic consultant (e.g. a member of the Australian Acoustical Society, the Institution of Engineers, the Association of Australian Acoustical Consultants or a person with other appropriate professional qualifications) undertake acoustic assessment reports.

Information that should be provided in an acoustic report includes:

- project description
- relevant guideline or policy that has been applied
- background noise measurements
- noise criteria applied to the project
- noise predictions for the proposed activity
- a comparison of noise predictions against noise criteria
- a discussion of proposed mitigation measures, the noise reduction likely and the feasibility and reasonableness of these measures
- how compliance can practically be determined.

The *NSW Industrial Noise Policy* and the *NSW Environmental Criteria for Road Traffic Noise* provide detailed guidance on what areas may need to be covered in an acoustic report. Ultimately the decision to request an acoustic report from a developer rests with council.

3.1.3 Notifying of potential noise impacts

Where land is likely to be affected by nearby noisy activity, potential purchasers of affected property could be made aware of the situation through the use of section 149 Certificates (*Environmental Planning Assessment Act 1979*). Annotations on a section 149 Certificate could advise, for example, that adjoining or nearby industry operates on a 24-hour basis and noise may be audible at night. This approach has been taken by some councils in relation to noise from aircraft and noise from port activities. This approach allows a purchaser of the land to make a decision on the suitability of the land for the intended purpose, taking into account personal sensitivities.

Other information and education programs could be used to encourage consideration of neighbours' sensitivities to noise. Advice for hobby farm residents on what is reasonable to expect in a working rural area is one example. Those programs can be aimed at encouraging responsible behaviour and cooperative neighbourhood relationships. Council can play a role in providing information to new residents through a welcoming kit, or as leaflets available at council offices.

3.2 Noise mitigation measures

Many of the noise mitigation measures discussed below can be applied at the planning stage for a new area or development and can also be applied to existing noise problems.

There are three main areas where noise mitigation measures can be applied. These are:

1. at the source
2. in the transmission path
3. at the noise receiver.

Noise mitigation measures are generally most effective at the noise source and in the noise transmission path. Noise mitigation at receiver locations are generally least preferred because external noise levels may remain high.

The selection of the right approach to noise mitigation will depend on the nature of the noisy activity, the location of noise receivers, the cost and viability of various solutions, the degree of noise mitigation required, any special characteristics of the noise and the individual site factors. Often a mixture of noise control measures will work best.

3.2.1 Control of noise at source

There are generally two approaches to controlling noise at source: use of **noise-efficient technology** and **best management practices**. Both these approaches aim to reduce the amount of noise at the source so that the surrounding environment is protected.

Noise-efficient technology

This involves selecting and using the most advanced and affordable technology, equipment, plant and machinery, so that the noise emitted is minimised, including the use of noise control equipment. Examples of noise-efficient technology include:

- **choosing quiet equipment** — noise should be a factor in selecting equipment. Equipment often has manufacturer specifications identifying noise output and this can be used to compare items of equipment. The POEO (Noise Control) Regulation (clause 18 and clauses

35–48) includes labelling requirements to provide information to help in choosing quiet equipment

- **managing equipment operation** — equipment can be operated in such a way as to manage noise optimally. For example, the Regulation requires that common noisy items such as domestic air conditioners, jackhammers and grass cutting machines have a label at the time of sale showing their maximum noise level
- using proximity-sensitive 'smart' reversing alarms, or using systems that reduce alarm noise levels in low noise areas
- using vibratory piling instead of impact piling
- using high-pressure hydraulic rock crushers to split rock, instead of hydraulic or pneumatic hammers
- choosing fan design features that will reduce noise — these may include blade length and speed of rotation
- **ensuring equipment has an efficient muffler system** or suitable noise insulation (e.g. using compressors or jackhammers with insulation, or trucks that have efficient muffler systems)
- **providing insulation** to line metal trays, hoppers or bins on equipment such as macadamia nut de-huskers, grain containers or hoppers. This helps to stop impact noise and noise reverberating
- **using vibration isolation**, such as placing rubber mats or springs between noisy equipment and a rigid floor or wall. This approach may be helpful in boiler rooms, for commercial cake or bread mixers in bakeries, or refrigeration motors and exhaust equipment and ducting
- **building an enclosure** around the noise source so that noise is contained. The enclosure may need to allow for sufficient ventilation and cooling. Any gaps need to be properly designed to limit the amount of noise that can escape. It needs to be made of dense material and may have noise absorbing material like glass or polyester bats inside.

Best management practices

Best management practices involve adopting particular operational procedures that minimise noise while retaining production efficiency. Some common noise reduction strategies include:

- **considering alternatives** to the noisy activity (e.g. using nets to protect crops instead of gas scare guns)
- **changing the activity** to reduce the noise impact or disturbance (e.g. re-organising the way the activity is carried out)
- **choosing a suitable time** — scheduling a noisy activity to a less sensitive time of the day. There are sensitive times of the day for different people, for example schools during the day, times of religious services, and residences during evenings and night. Where several noisy pieces of equipment are used, their operation can be scheduled to minimise impacts.
- **relocating the noise source** away from receivers or behind existing structures that can act as a barrier. The activity may work just as well in a more remote location. Examples where this approach may be suitable include use of power tools such as circular saws, locating air conditioners and pool pumps or the location of music practice.

- **conducting regular maintenance** of equipment. This helps minimise noise levels as well as keeping equipment working efficiently. Poorly maintained equipment can be very noisy, such as when bearings are worn or an engine needs to be tuned. Examples include motor vehicles, lawn mowers and power tools, and commercial equipment such as refrigeration and exhaust systems
- **changing the orientation of equipment** away from receivers (e.g. changing the direction of a gas scare gun or a diesel generator exhaust outlet)
- **locating pets or farm animals** away from noise-sensitive areas, and using management practices that minimise noise. Applications include poultry sheds or dog kennels.
- **Applying 'quiet' work practices,** such as requiring trucks to turn engines off rather than idle for long periods
- **keeping neighbours informed** of a planned noisy activity, its duration and the reasons for the activity. Neighbours may be more accepting of temporary intrusion if they know when and why the noise is happening, and how long it will last
- **educating staff and contractors** about noise and quiet work practices. This could include signage, e.g. some construction sites have signs reminding contractors to consider neighbours and be quiet, and not start work too early (e.g. before 7 am).

3.2.2 Controlling noise in the transmission path

Noise can be controlled in the transmission path by using separation distances, barriers and sound absorptive materials.

- **Increasing the separation distance (distance attenuation)** between the noise source and receiver reduces the noise level. As a rule of thumb, each doubling of the distance from a source equates to a reduction of sound pressure level of 6 dB (the inverse square law). This does not apply close to a loud noise source. It may also be affected by wind and temperature inversions for source–receiver distances over 500 m.
- **Careful site selection** for a new noisy activity can help minimise noise impacts where it is possible to provide adequate separation distances. Taking advantage of topographic features by siting the noisy activity behind a hill can reduce the distance needed to adequately reduce noise levels.
- **Barriers** are most effective when they are located close to the noise source and when they block the line of sight between the source and receiver. The amount of noise reduction achieved depends on the height and mass of the barrier and the frequency of the noise (i.e. barriers are less effective for low-frequency noise). Noise barriers should have no gaps. Use of absorptive material on the side of the barrier facing the noise source can also help to reduce noise levels by reducing noise reflections.

  Materials commonly used for noise barriers include solid brick walls, concrete blocks or panels, earth mounds, trenches or cuttings. Natural topography and existing buildings can also provide an effective noise barrier and should be considered when developing a new noisy activity. Trees or other vegetation do not provide an effective barrier for noise. Some limited attenuation may be gained where trees are densely planted, but little attenuation is achieved for low frequencies.
- **Sound absorptive materials** reduce the level of reflected sound. They are porous materials such as glass fibre, wool and mineral wool. Thin layers are only capable of absorbing high frequencies, whereas thicker layers can absorb over a wider frequency range.

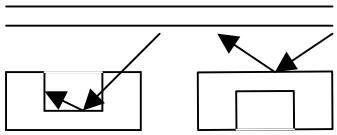
3.2.3 Controlling noise at the receiver location

This can be cost effective if applied at the planning and construction stage, but is typically the least desirable of the three types of noise mitigation when treating existing problems. For existing situations, applying noise mitigation to affected buildings may be more appropriate and cost-effective where only a few receivers would be affected by noise and the alternative is to retrofit expensive source noise controls.

Common approaches to controlling noise at receiver locations, such as residential dwellings, schools or hospitals, can include a combination of the following measures.

- **Site and building layout** may include the use of setbacks for a new house, or changing the shape and orientation of the building to avoid sound being reflected into noise-sensitive rooms. (See Figure 4.) Orientation and placement of rooms within a building can also help to minimise noise impact (e.g. placing bedroom and sensitive living areas furthest from a noise source and placing kitchen, bathroom or garage areas closest to the noise source). This approach can also be used in designing mixed-use developments, where a commercial activity can be located closer to a noise source and residential activities can be located further away.

Figure 4 — Site and building layout to avoid noise



- **Barriers and fencing** can be placed on the residential boundary to protect a house and external areas. Barriers and fencing can also be used within a property to provide a protected external recreation area such as a walled courtyard or garden. Solid building facades closest to the noise source will also act as noise barrier. Other options include providing solid balconies designed to reflect sound away from a building.

Links development at Camden

- **Building construction methods** are also an important noise control strategy for receiver locations. The major controls are insulating building elements such as doors, walls, windows, floors, the roof and ceilings. Options for window design include sealing air gaps around windows and doors, using laminated or thick glass and double-glazing. All external building elements need to be considered to ensure noise insulation is effective. This is because even small gaps can significantly reduce the effectiveness of noise insulation measures. Ventilation needs to be considered in conjunction with any noise insulation work; mechanical ventilation (such as air conditioning) may be necessary.

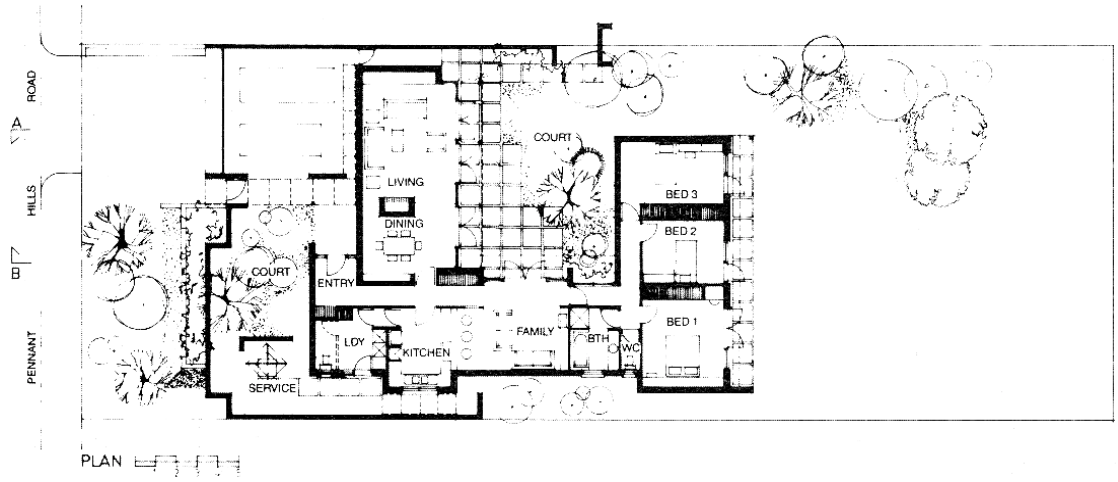
The 'Quiet House' — Pennant Hills Rd, North Parramatta

The 'Quiet House' was built as a demonstration of how design can be used to greatly reduce the noise impact (in this case traffic noise) inside a residential dwelling.

Features of the design (illustrated in the following plan) that reduce the noise include:

- a high front wall (noise barrier)
- the courtyard at the front of the house (including vegetation)
- hallways do not provide a direct transmission path for noise
- bedrooms are located at the rear of the house (furthest from the road).

Floor plan of the 'Quiet House'



3.3 Other noise management options

3.3.1 Environmental audits

Audits required by council

Environmental audits of industrial premises that are regulated by councils are becoming more common as a range of councils implement environmental audit programs. Environmental audits provide an opportunity to identify the environmental impacts of an activity or business that may need to be improved. Audits have an important role to play in educating people and improving the environmental performance of commercial and industrial premises. The *EPA Manual for Authorised Officers* provides advice on developing and implementing an environmental audit program. (*EPA Manual for Authorised Officers*, can be accessed at http://www.epa.nsw.gov.au/mao/).

Voluntary audits

The POEO Act also provides for voluntary audits undertaken by operators for the purpose of gaining information (for operators) on compliance with legal requirements, codes of practice or environmental policies, and to help identify ways an activity can be improved in order to protect the environment and to minimise waste (POEO Act, s.172).

Voluntary audits differ from audits required by councils in that documents prepared for the sole purpose of a voluntary audit are protected. They cannot be used as part of enforcement action, including the issuing of notices, or prosecution (POEO Act, ss.180–183).

3.3.2 Environmental management plans

Environmental management plans can be used to establish clear goals and to encourage best management practices during construction activities and ongoing operation. These types of plans can be most useful when mitigating environmental impact relies on management practices. In some situations it may be appropriate for council to require a proponent to develop an environmental management plan as part of a development consent, or to encourage the development of a plan as part of the environmental audit program for a particular premises.

3.3.3 Contract specifications

Conditions set in contractual agreements can also help to avoid or minimise noise impacts and can be used where council is using contractors to provide services. Council may also be in a position to recommend changes to contracts for commercial premises.

For example, where contract specifications shoon the management of noise impacts should be applied to garbage collection contracts. The contract should include clauses specifying suitable collection times, the location that compactors can be operated or bottles smashed, complaint handling processes, etc. Contractors for road works could also be required to comply with a council noise policy.

3.3.4 Communication, negotiation and mediation

At a neighbourhood and workplace level, people should be encouraged to discuss their noise problems in the first instance with the person or business making the noise. **Communication** with a neighbour may be all that is required to reach a mutually satisfactory solution. Good relationships between neighbours should reduce the need for regulatory intervention.

Where neighbours have not sought to resolve the problem between themselves, the best first step for council officers may well be to facilitate communication. Ways of facilitating communication to resolve noise problems range from informal discussion to more formal negotiation and mediation processes that seek to resolve a dispute. Informal approaches are often preferable to taking statutory actions and are likely to use fewer council or Police resources.

This approach may be useful where, for example, the volume of music needs to be reduced or where the time or location that individuals play loud musical instruments such as drums causes conflict. In this type of situation it may be possible to negotiate days and times that are acceptable to both the complainant and the person making the noise.

Negotiation can occur between neighbours, or between council and the person making the noise. By discussing the noise problem with the person responsible for the noise and by explaining that the noisy activity is disturbing neighbours, the person making the noise may be

willing to negotiate a solution to the problem. Solutions often rely on either reducing the noise or changing the way or times the activity takes place.

Mediation is a form of negotiation, where a third party (e.g. council) helps the people in dispute to find their own solutions and resolve problems amicably in an informal and confidential forum without strict legal rules, under the guidance of a mediator. The mediator's role is to help the parties discuss the problem and achieve a solution in an atmosphere of cooperation and good faith.

- **Informal mediation** may take place between the person making the noise and the person or people affected, with the authorised officer acting as mediator. The aim is to reach a mutually acceptable agreement that avoids the need for more formal mediation or for regulatory intervention.
- **Formal mediation** may be appropriate where underlying issues contributing to the conflict also need to be resolved. Community Justice Centres (CJC) or a professional mediator may be able to help in these situations by providing a formal mediation service. Some councils, such as Liverpool Council, have a mediation service for resolving environmental disputes including those that arise as part of the development approval process.

The NSW Law Society has developed information for local government on best practice management of environmental disputes. This information is available from the Local Government & Shires Association at http://www.lgsa.org.au.

Key strategies for successful mediation

- Remain impartial and focused on solving the problem.
- Look for areas where both sides agree.
- Listen actively and acknowledge what is being said.
- Recognise and understand emotions. Don't let emotional outbursts affect the mediation process.
- Be open to others' perceptions of the problem.
- Try to build rapport with all sides.
- Focus on possibilities, be flexible, and think laterally. With objections ask: 'Why not'?

3.3.5 Complaint management

Council officers, Police and other authorised officers can provide an impartial and fair assessment of what level of noise is reasonable taking into consideration the nature of the activity, the surrounding area and number of people likely to be affected.

Important steps that can contribute to resolving a noise problem include:

1 establishing internal procedures to receive and manage neighbourhood noise complaints in a consistent and transparent manner

2 acting on the complaint as quickly as possible in order to prevent the situation getting out of control. The complainant's level of tolerance may have already been lowered if a problem has been ongoing. This can make any subsequent improvement in noise unsatisfactory from the complainant's perspective

3 determining whether the complaint is justified. A site visit to witness the noise first hand is recommended to determine whether the complaint has been made on a reasonable basis. Factors that may need to be considered include the possibility that the complainant has:

   - hearing impairment – this can distort sound so that it is particularly annoying for the complainant but would generally be acceptable for a person with normal hearing
   - tinnitus – which is a physical condition where the person hears a constant ringing or humming all the time. It is possible that the sufferer is not aware that the noise they hear is in fact tinnitus
   - become sensitised to the noise so that it causes more annoyance than would normally be the case

4 explaining to the complainant what council or Police can do to address the noise problem, and checking that the complainant has reasonable expectations about the likely result. For example, it is not usually reasonable to close a commercial activity that is otherwise operating legitimately because of noise issues. It may also not be possible or reasonable to expect absolute silence

5 keeping the complainant informed of progress and the action being taken to resolve the problem. The authorised officer also needs to give the complainant realistic expectations about the time it will take to resolve the problem. This may be within the day for a noisy party, or where extensive noise reduction work is required it could be several months or longer

6 determining whether there is a history of noise complaints for the premises. The complainant may be able to provide information regarding any previous action in regard to the same noise issue. It may also be helpful to check with other colleagues from council or the Police, as they may have had complaints about noise from the same premises. Often if noise occurs after hours, a council ranger or the Police may have visited the premises and given either a warning or a Noise Abatement Direction, or both.

3.3.6 Working with other regulators

Fostering ongoing liaison between regulators such as council, Police and Waterways Authority officers can help coordinate resources and resolve ongoing noise problems more efficiently and effectively, as each of these regulators have a range of powers and responsibilities. (Part 1.4, *Roles and responsibilities in noise control* gives more details.) Liaison between regulators can help to clarify the role of each regulator in managing noise problems. It can reduce possible duplication and help to resolve difficult and ongoing noise problems in the most efficient and effective way. An example is Rockdale City Council and the local Police working together to address the issue of loud car stereos during the summer months.

An example of where the combined resources of council and Police may be used effectively is where Police have been called to a property as a result of loud music on a regular basis, and may have issued a Noise Abatement Direction and a penalty notice. Rather than continue to respond to noise complaints, the Police could advise council of the ongoing problem. Council has additional powers to issue a Noise Control Notice or Prevention Notice to address such ongoing noise problems. (See Section 4.2 — *The Protection of the Environment Operations (POEO) Act 1997* for details.)

Where complaints are received about licensed premises or apartment buildings, it may also be helpful to involve other regulators such as the Liquor Administration Board where the

complaint relates to a hotel or pub, or the Owners' Corporation where noise problems are occurring within an apartment complex.

3.3.7 Warning of legal action

Where non-regulatory approaches do not achieve an acceptable environmental outcome, or where the person making the noise is not willing to cooperate, then regulatory tools remain an important option for resolving local noise problems. Where discussion and negotiation has not resolved a problem then a warning of legal action may sometimes be enough. An example is a letter advising of council's intention to take regulatory action against the person making the noise if the problem is not remedied. Where this approach is taken, it is important that the warning can and will be implemented if the person making the noise decides not to heed the warning. The warning letter also demonstrates that council has acted reasonably and provided the person with natural justice should legislative remedies ultimately be used.

Part 4 Regulating noise impacts

The key regulatory tools for managing local environmental noise impacts are provided by the ***Protection of the Environment Operations Act 1997*** (POEO Act) and the **POEO (Noise Control) Regulation 2000**. A range of notices, directions and orders in relation to noise can be issued under the POEO Act, while the Regulation describes offences and outlines penalties for these offences.

Other legislation that can be used to address specific noisy situations includes:

- ***Environmental Planning and Assessment Act 1979*** **(and Regulation 2000)** which provides for orders for breach of development consent with penalty notice option.
- ***Companion Animals Act 1998*** which provides Nuisance Dog and Cat Orders requiring the owner to prevent nuisance behaviour for six months.
- ***Local Government Act 1993*** **(s.124) Order No 18** which requires an occupier of a premises to keep animals, including birds, in an appropriate manner specified in the order.
- ***Strata Schemes Management Act 1997*** which provides for various notices, orders for breaches of strata by-laws and disputes between neighbours in strata schemes.

This Guide focuses on the use of powers under the POEO legislation. The Department of Local Government may give advice on the appropriate use of other powers.

The decision regarding which of these instruments to use will depend on the circumstances of each noise problem and on the judgement of the authorised officer. It may be helpful for authorised officers to discuss the statutory options available for addressing noise with a senior manager or council's legal officer.

4.1 Deciding on a course of action

There are many factors to consider when deciding on the best course of action in response to a specific noise problem.

Issuing a penalty notice tends to provide more streamlined enforcement procedures for many common noise problems. For example, the POEO (Noise Control) Regulation requires that a motor vehicle is not to be used in any place, other than a road, in a manner that results in offensive noise (clause 14). If the use of trail bikes on private land was emitting offensive noise and an authorised officer decided to apply the Regulation, then a penalty notice could be issued immediately on a single site visit.

The officer is able to exercise discretion in regard to whether to issue a penalty notice or a warning depending on the specific circumstances.

In comparison if the authorised officer decided to issue a Noise Abatement Direction under the POEO Act, then at least two assessments of the noise are normally needed. The first is to assess whether offensive noise is or was being made and, if so, to issue the direction. A second assessment would then be required to determine if the direction was being complied with. A penalty notice could be issued if offensive noise continued to be made in breach of the direction.

There may be situations where the Regulation has been applied, but where the problem has escalated or is ongoing. For example, if the trail bikes continued to be used on the private property, despite warnings and penalty notices, it may be appropriate for the authorised officer to consider the other regulatory tools provided by the POEO Act. A Prevention Notice or a

Noise Control Notice could be served on the trail bike rider or the occupier of the land requiring certain action to be taken or setting a noise limit that must not be exceeded.

Which notice or direction to use?

Things to consider when choosing which notice or direction to use include:

- Is council the appropriate regulatory authority and is the investigating officer an authorised officer?
- If a penalty notice is to be issued by an officer, has the officer been authorised to issue penalty notices?
- Can the problem be easily remedied? For example, reducing the volume on a stereo, or stopping the use of trail bikes.
- Is work required to reduce noise? For example, insulation of a noisy pool pump.
- Does council have the expertise and equipment to take noise measurements?
- Do noise measurements need to be taken or can the authorised officer easily assess the noise as being offensive?
- Is it a complex noise problem? For example, are there several different noise sources on a site?
- Is it possible to set an achievable noise level that should be met?
- Is it more appropriate to require best management practices to be adopted to minimise noise?
- How will council determine compliance with any notice served?
- Does the appropriate regulatory authority have enough evidence to act on, and to defend any appeal of a notice in court?

4.1.1 Concurrent enforcement actions

Sometimes it may be useful to issue notices and directions in combination, but careful management of such processes is required. Some councils have issued a Prevention Notice or a Noise Control Notice to deal with noise from an activity, and have also issued a Noise Abatement Direction to deal with a repetition of the noise for the 21-day appeal period during which the notice is not in effect.

This approach may be appropriate where a noisemaker continues to make offensive noise and is causing significant disturbance. The direction would operate concurrently with the Noise Control Notice or Prevention Notice during any period of overlap, as the direction will last for 28 days (unless a shorter time period is specified in the direction).

Example

An activity involving the use of a circular saw is not being carried out by such practicable means as are necessary to prevent, control or minimise the emission of noise from the saw. Noise from the saw is made on Monday and a Prevention Notice is issued requiring an action plan to be developed to control the noise. There is a 21-day appeal period against the Notice. The circular saw is used again on Tuesday and a direction is also issued which prohibits offensive noise for 28 days.

Where more than one notice or direction is used to address noise from a certain activity, the following considerations must first be addressed:

- natural justice must be maintained (the person issued with the notices retains their rights to appeal the notices), and
- there should have been more than one occurrence of the noise (i.e. on separate days or times).

Any appropriate regulatory authority intending to use more than one notice or direction in this way should seek legal advice to ensure the process meets the requirements of natural justice.

4.1.2 Animal noise

As there are a range of possible enforcement options available to control noise from animals, it is recommended that individual councils develop and adopt internal procedural guidelines for dealing with noise complaints relating to animals. This allows all complaints relating to a particular animal noise to be treated consistently within local communities.

When assessing the available options it is important to remember that each enforcement action has a differing cost implication on both council and the recipient of the action.

Regulatory options for dealing with animal noise

- The *Companion Animals Act 1998* provides for the service of orders to control nuisance dogs and cats (ss.21 & 31). The Act assists by defining the characteristics of noise from the animal that would be regarded as a nuisance.
- The *Local Government Act 1993* provides for the service of an order (Order 18 under s.124) to require the occupier of premises to keep animals, including birds, in an appropriate manner. In terms of noise, the regulations provide that poultry are not to be kept in a manner that creates a nuisance or health risk. Unlike the *Companions Animals Act 1998*, the *Local Government Act 1993* does not provide a definition of nuisance.
- The *Protection of the Environment Operations Act 1997* allows for the use of both Prevention Notices and Noise Control Notices to control noise from animals.

  NOTE: the definition of 'activity' under the Act includes the keeping of an animal. The Protection of the Environment (General) Regulation 1998 provides a reduced appeal period of seven days for Noise Control Notices relating to the keeping of an animal.

4.2 The Protection of the Environment Operations 1997

Table 2 summarises enforcement options available under the POEO Act. This may help in deciding which instrument is most appropriate given the specific circumstances of the noise problem. The following subsections detail each relevant enforcement option available under the POEO Act. These are:

- 4.2.1 Noise Control Notices (POEO Act s.263–267)
- 4.2.2 Noise Abatement Directions (POEO Act ss.275–279)
- 4.2.3 Noise Abatement Orders (POEO Act ss.268–274)
- 4.2.4 Prevention Notices (POEO Act ss.95–100
- 4.2.5 Compliance Cost Notices (POEO Act s.104(3) and 104(4))
- 4.2.6 Noise pollution from operating plant and dealing with materials (POEO Act ss.139–140)

Table 2 — Summary of statutory instruments for noise under the POEO Act

Notice or instrument	Precondition	Feature	Example	Appeal period & time in effect	Penalty for prosecution	Penalty notice fine
For use by councils						
Noise Control Notice (POEO Act s.264)	Measure noise and establish an acceptable noise level for the article or activity.	Used to specify noise level and measurement point in a formal way.	Noise levels from the pump must not exceed 45 dB(A) $L_{eq\ 15\ min}$ at any time between 7am–10pm on any day when measured at the north boundary of 45 Smith St.	Notice comes into force after 21-day appeal period, or when L & E Court has confirmed the notice. Can be revoked or varied by appropriate regulatory authority.	Corporations $60,000 and for each day offence continues, $6,000. Individuals $30,000 and for each day offence continues, $600. (POEO Act s.265).	Corporation $400 Individual $200
Prevention Notices (POEO Act s.96)	Applies if activity is being carried out in an environmentally unsatisfactory manner as defined by s.95.	Action specified in the notice must be undertaken. (This notice can also address other pollution or waste problems.)	Prepare, by a certain date, an action plan to reduce noise from the site.	Notice comes into force after 21-day appeal period, or when L & E Court has confirmed the notice. Can be revoked or varied by appropriate regulatory authority.	Corporation $250,000 and for each day offence continues, $120,000. Individual $120,000 and for each day offence continues, $60,000. (POEO Act s.97)	Failure to comply with notice: Corporation $1,500 Individual $750 Failure to pay admin fee: Corporation $1,000 Individual $500
Compliance Cost Notice (POEO Act s.104)	Where council incurs costs in ensuring compliance with a Prevention Notice.	Provides for recovery of compliance costs, including monitoring.	Pay $abc, being costs incurred by council in taking listed steps to monitor compliance with a Prevention Notice.	Costs must be paid by due date in notice.	Legal action to recover amount owing.	N/A

Notice or instrument	Precondition	Feature	Example	Appeal period & time in effect	Penalty for prosecution	Penalty notice fine
For use by council officers and police officers						
Penalty Notice (POEO Act s.224)	An offence against the POEO Act or the POEO (Noise Control) Regulation for which POEO (Penalty Notices) Regulation says council officers & police can issue penalty notices.	Can be used to fine offender on the spot	Offensive noise was made contrary to Noise Abatement Direction.	Penalty must be paid within 28 days of being served unless notice revoked or offender elects to go to court and is prosecuted.	N/A	N/A
Noise Abatement Direction (POEO Act s.276)	Offensive noise is occurring or has occurred within the last seven days.	Quick response to temporary offensive noise.	Cease making offensive noise from stereo system.	Remains in force for up to 28 days. Can be revoked.	30 penalty units (currently $3300 @ $110 per unit) (POEO Act s.277)	Corporation $400 Individual $200
For use by individuals						
Noise Abatement Order (POEO Act s.268)	Any occupier of premises whose occupation is affected by offensive noise.	Allows residents to seek intervention by Local Court (magistrate) without reference to Police or council.	Magistrate satisfied (on balance of probabilities) that offensive noise is being emitted. Order issued to person making the noise directing that offensive noise must not be emitted.	In force immediately or at the time specified in the Order. Lasts until revoked by the Local Court. Can appeal to Land and Environment Court within 21 days of order being made. If appealed, order is suspended until appeal dealt with or withdrawn.	30 penalty units; (currently $3300 @ $110 per penalty unit) (POEO s.269)	No provision for penalty notice.

4.2.1 Noise Control Notices (POEO Act s.263–267)

A Noise Control Notice is used to prohibit an activity or the use of equipment from emitting noise above a specified noise level.

Scope

A Noise Control Notice prohibits noise from an activity or a piece of equipment from being emitted above a specified level when measured at a specified point. A Noise Control Notice can be applied to a wide range of premises including industrial, commercial and residential sites.

The notice must specify the:

- acceptable noise level
- measurement location(s)
- days and times when noise levels apply
- activity or article that is to be controlled.

Failure to provide an appropriate description of the noise source or measurement location may make the notice difficult to enforce. If the notice does not specify the hours during which the noise limit applies, then the noise limit applies to the whole 24-hour period (POEO Act s.264).

Using a Noise Control Notice

A Noise Control Notice may be useful when a problem requires work to reduce noise, and where an acceptable noise level can be specified. A Noise Control Notice can also be used before an event occurs by setting an acceptable noise level in advance of when an activity will occur (e.g. a motor sport event or an outdoor concert). A Noise Control Notice remains in force until the appropriate regulatory authority revokes it.

Specifying a noise level

Before preparing a Noise Control Notice, it is advisable to measure the background noise level. This information makes it possible to assess the intrusiveness (i.e. the extent that noise exceeds the background noise level) of any noise limit being considered. It is possible to use a previously measured background level for the location, provided you can demonstrate that the level is representative of the background in the specific case. A measurement of the problem noise should then be made to determine whether the noise level specified is exceeded. Part 2.4, *Noise measurement,* provides advice on how to measure noise. The *NSW Industrial Noise Policy* (Chapter 10) provides additional guidance on noise emitted from existing industrial premises.

A Noise Control Notice must specify:

1 a noise limit that the activity or equipment must not exceed. When deciding what noise limit to set, it is important that the limit is realistic and achievable. Different noise limits may be set for different periods, for example you might set a lower noise limit at night. Don't forget to attach an appropriate noise descriptor and measurement period to the set noise limit (e.g. $L_{Aeq\ 15min}$)

2 the location where the specified noise limit(s) must be measured. This is usually at the nearest residential boundary, or if the boundary is a long way from a dwelling, such as in rural areas, at 30 metres from the residence. At night noise can be assessed at 1 metre from

a bedroom window to address the potential for sleep disturbance. However, it is important to ensure the measurement location is accessible to whoever receives the notice so they can check compliance. Where access to check compliance is a problem, a more accessible location to measure compliance can be specified and the noise level adjusted accordingly.

3 The times and/or days that the noise limit(s) applies. If none are specified then the noise limit applies at all times.

4 The noisy activity or article that must be controlled.

A Noise Control Notice must be issued in writing (POEO Act s.264). A template for a noise control notice is attached in Appendix 3 to this Guide (source: *EPA Guide to Notices 1999*).

Power to issue a Noise Control Notice

An appropriate regulatory authority can issue a notice to:

- the occupier of the premises concerned, or
- the person carrying on the activity, or operating the article (POEO Act s.264).

Councils can issue Noise Control Notices for activities they are responsible for under the POEO Act. The Waterways Authority can issue Noise Control Notices in relation to non-scheduled activities involving non-pilotage vessels in navigable waters.

Police **do not** have the power to issue Noise Control Notices.

Appeals and revocation

A Noise Control Notice can be appealed to the Land and Environment Court within 21 days of being served (POEO Act ss.267 and 290). Where the notice relates to the keeping of an animal the appeal period is within seven days of the notice being served (clause 59 POEO (General) Regulation 1998).

A Noise Control Notice does not take effect until after the appeal period has expired or until the court has determined an appeal or the appeal has been withdrawn (POEO Act s.267).

Offence

It is an offence to contravene a Noise Control Notice. An offence occurs if the activity or article emits noise above the noise limit specified in the notice during the relevant times or days. However, this does not apply where the noise cannot be detected outside the premises without the aid of an instrument (POEO Act s.265). This means that any noise above the specified level must also be audible.

Penalties

A breach of a noise control notice can be prosecuted in the Land and Environment Court with a maximum penalty of $60,000 for a corporation, and $30,000 for an individual. Daily penalties also apply for each day that the offence continues.

Alternatively, an authorised officer can issue a penalty notice for a breach of a Noise Control Notice. This provides for fines of $200 for an individual and $400 for a corporation which can be issued ‘on the spot’ where this is practicable (POEO (Penalty Notices) Regulation 1999). Council receives the bulk of any fines imposed by the court or by a penalty notice.

4.2.2 Noise Abatement Directions (POEO Act ss.275–279)

Noise Abatement Directions can be issued if offensive noise:
– is being emitted, or
– has been emitted at any time within the past seven days.

The direction lasts for up to 28 days.

Scope

Noise Abatement Directions are useful for quickly dealing with temporary noise problems such as loud music, where the noise can reasonably be reduced or stopped. A direction is an official instruction that offensive noise must cease being emitted. A direction can be issued within seven days of the offensive noise occurring and lasts for up to 28 days.

Using a Noise Abatement Direction

A Noise Abatement Direction can be issued if it appears to an authorised person that offensive noise is being made or has been made in the past seven days (POEO s.276). An 'authorised person' is generally an 'authorised officer' (i.e. a person appointed as such under section 187 of the POEO Act) or a Police officer (POEO s.275).

Offensive noise is defined in the POEO Act. In deciding whether a particular noise is offensive the authorised person would need to apply the definition of offensive noise from the POEO Act and consider what a reasonable person would find offensive. Determining offensive noise is discussed in detail in Part 2.3 of this Guide.

The authorised person need not have witnessed the offensive noise before issuing a Noise Abatement Direction. For the direction to be issued, it is sufficient for it to appear to the authorised person that offensive noise occurred in the past seven days. Where an authorised person has not heard the noise, it is preferable to ask witnesses to make a signed statement about the noise and its effect on them.

A template for a noise abatement direction is attached in Appendix 3.

Power to issue a Noise Abatement Direction

An authorised person can issue a noise abatement direction to:

- the occupier of the premises concerned, or
- the person making or contributing to the making of the offensive noise.

Serving a Noise Abatement Direction

A Noise Abatement Direction can be issued verbally or in writing to the person the authorised officer believes to be the occupier of the premises from which the offensive noise originates, or to any person the officer believes is making or contributing to the noise, or both. Where further action may be required it is recommended that a written direction be provided so there is clear evidence of the details of the direction. This is helpful for both the regulator and the person receiving the direction.

A Noise Abatement Direction should specify the source or type of offensive noise, for example, 'cease using concrete saw or any other power tools'.

Restrictions

Section 278 of the POEO Act states that a Noise Abatement Direction may not be directed to the State, a person acting on behalf of the State, a State public authority or a person in the capacity of a member, officer or employee of that authority. It also has no force if it affects:

- any activity carried on, by or for the State or a State public authority
- any activity or work that requires or is subject to an EPA licence (see Schedule 1 of the POEO Act).

Appeals and revocation

There is no right of appeal against a Noise Abatement Direction under the POEO Act.

A direction may be revoked by the person who gave the direction or by another authorised person (POEO Act s.279).

Offence

It is an offence to breach a Noise Abatement Direction. This happens if the offensive noise specified in the direction is made again within 28 days of the direction being given (or within a shorter time period if so specified in the notice).

Penalties

Penalty notices can be issued for failing to comply with a Noise Abatement Direction with fines of $200 for an individual and $400 for a corporation.

The maximum penalty the Land and Environment Court may impose for not complying with a Noise Abatement Direction is 30 penalty units (at the time of publication $3,300 @ $110 per penalty unit. This is set by the *Crimes (Sentencing Procedure) Act 1999* (s.17).

Special powers of Police for enforcing Noise Abatement Directions

Police officers have special powers for serving and enforcing Noise Abatement Directions. These include the power to:

- enter premises with a warrant (POEO Act s.280)
- require certain information (name and address) (POEO Act s.281)
- seize equipment making offensive noise in breach of a Noise Abatement Direction (POEO Act s.282).

Warrant to enter premises (POEO Act s.280)

A Police officer can enter premises (with a warrant) to give a Noise Abatement Direction or to investigate if a direction has been contravened (POEO Act s.280 (1)).

A magistrate can issue a warrant following a complaint by a Police officer (received either directly or indirectly, see POEO Act s.280 (2) & (3)) if the Police officer:

- has been denied entry to a particular premises
- believes that offensive noise is being or has been emitted from the premises in the past seven days, and
- issues a direction immediately on entering the premises or calls for an investigation to be carried out to see if a direction has been contravened.

The POEO (General) Regulation 1998 (clause 58 and Schedule 4 forms 1,2 & 3) provides the prescribed forms for the magistrate and the Police officer to record details of the case and the information that must be provided to the occupier of the premises where the warrant is being executed.

Police powers after entry by warrant (POEO Act s.281)

If a person is causing or contributing to offensive noise or has done so within the last seven days then a Police officer can require a person to provide:

- their name and address
- the name and address of the occupier of the premises if that person is not the occupier.

The person must first have been warned that they are obliged to provide this information. It is an offence not to provide this information or to give false information, with a maximum penalty of 30 penalty units (POEO Act s.281(3)).

Police power to seize equipment (POEO Act s.282)

A Police officer can seize or secure any equipment that is making offensive noise if a Noise Abatement Direction is in force and a person is contravening the direction. The person must be warned that the continued use of the equipment may lead to it being seized. A receipt then needs to be issued to the person. Equipment must be returned or released within 28 days. Other police powers are not affected (POEO Act s. 283).

4.2.3 Noise Abatement Orders (POEO Act ss.268–274)

Individuals can seek a Noise Abatement Order independent of any regulatory authority such as a council or the Police.

Noise Abatement Orders can only be made by a Local Court.

The magistrate determines the matter on the 'balance of probabilities'.

Scope

Any occupier of premises who believes their occupation of the premises is being affected by offensive noise can seek a Noise Abatement Order without involving a regulatory authority such as council or the Police. This is done by making a complaint to a magistrate at the Local Court and seeking a Noise Abatement Order. The Court may make a Noise Abatement Order requiring offensive noise to cease if it is satisfied that the noise was offensive.

Using a Noise Abatement Order

Where council or the Police have decided that no further action is justified for a particular matter, the resident can be advised about the option of seeking a Noise Abatement Order from a Local Court.

The burden of proof required for an order is less than that required for criminal enforcement action by a regulatory authority (i.e. the magistrate may make a ruling on 'the balance of probabilities' based on the evidence presented, rather than having to be convinced beyond reasonable doubt).

Obtaining a Noise Abatement Order

Any person wanting to seek a Noise Abatement Order should make an appointment with the Chamber Magistrate at the Local Court. The following steps are involved in the issuing of a Noise Abatement Order:

1. The occupier of affected premises makes a complaint to a magistrate. It is not necessary for the complaint to be in writing, but it is advisable.
2. The magistrate may then summon the person making the noise, or the occupier of the premises making the noise, to appear before the Local Court (POEO Act s.268).
3. The Local Court may issue an order if it is satisfied, on the balance of probabilities, that the offensive noise either exists or is likely to recur.

It is not necessary to obtain legal advice when seeking an order although this may be advisable depending on the circumstances. An order takes effect either immediately or at a time specified in the order. An order may be revoked or varied by a Local Court.

Appeal

A person against whom a Noise Abatement Order has been made may appeal to the Land and Environment Court within 21 days of the order being made (POEO Act s.290). The order is suspended until the appeal is dealt with or withdrawn (POEO Act s.271).

Restrictions

Under section 270 of the POEO Act, a Noise Abatement Order may not be directed to the State, a person acting on behalf of the State, a State public authority or a person in the capacity of a member, officer or employee of the authority. It also has no force if it affects an activity carried on, by or for the State or a State public authority or an activity that requires or is subject to an EPA licence.

Offence

A person who contravenes the terms of a Noise Abatement Order is guilty of an offence (POEO Act s.269).

The person who applied for the order can seek to have the person given the order prosecuted for contravening the order. Council and the Police can also prosecute a person for breaching an order. Section 218 of the POEO Act identifies who may take a prosecution for a breach of a Noise Abatement Order.

Where an order has been breached, the breach will have to be established according to a criminal standard of proof (i.e. beyond reasonable doubt). This is more onerous than the standard of proof required to obtain an order.

Penalties

The maximum penalty for not complying with a Noise Abatement Order is 30 penalty units (at the time of publication $3,300 @ $110 per unit set by section 17 of the *Crimes (Sentencing Procedure) Act 1999*). A penalty notice **cannot** be used for a breach of an order.

4.2.4 Prevention Notices (POEO Act ss.95–100)

Prevention Notices are used to address activities that are conducted in an 'environmentally unsatisfactory manner'.

Actions need to be specified in the Prevention Notice.

Scope

A Prevention Notice can be used to address activities that are conducted in an 'environmentally unsatisfactory manner' (as defined in s.95 of the POEO Act) and should specify the action to be taken to remedy the problem.

Section 96(3) of the POEO Act provides a list of examples of the actions that the Prevention Notice can require. This includes requiring the operator to develop an action plan and to supply progress reports on the action required by the Prevention Notice (POEO Act s.96(5)).

A Prevention Notice can encourage an operator to apply best management practice to an activity. It is likely to be appropriate where:

- there is a complex activity with many noise sources, and changes to operational practices are needed
- it may be difficult or unreasonable to specify an acceptable noise level that must be met
- there are a number of environmental issues requiring action, e.g. noise, air, water or waste problems. A single Prevention Notice can be used to address all these problems for a particular site or activity.

The Prevention Notice is designed to set out actions that are needed for an activity to operate in an environmentally satisfactory manner. It is oriented towards finding solutions that would control the noise and cannot be used to simply ban an activity.

Using a Prevention Notice

Before preparing the Prevention Notice you must establish that the activity is being carried out in an environmentally unsatisfactory manner. Section 95 of the POEO Act defines this term. Section 95(c) and (d) contains the most relevant parts of the definition in relation to noise and states that an activity is being carried out in an 'environmentally unsatisfactory manner' if:

(a) it is not carried on by such practicable[2] means as may be necessary to prevent, control or minimise pollution, the emission of any noise or the generation of waste, or

(b) it is not carried on in accordance with good environmental practice.

A Prevention Notice needs to specify:

1. The actions the operator should take to ensure the activity is carried out in an environmentally satisfactory manner. Section 96(3) of the POEO Act lists some of the things that can be required in a Prevention Notice.

[2] The term 'practicable means' is not defined by the POEO Act so it is given its natural meaning. The Macquarie Dictionary defines practicable as '*capable of being put into practice, done or effected especially with the available means or with reason or prudence; feasible*.' If there is action that can be taken to prevent, control or minimise the emission of noise, then a prevention notice may be issued.

2. If suitable measures to control the noise are not apparent, the Prevention Notice can require that an action plan (noise management plan) be developed by the operator as a first step. The operator usually best understands the noise source and may be able to think of innovative solutions with your encouragement.

   An action plan could specify the details that council expects the operator to address. For example, the Prevention Notice may require that the action plan is prepared by a suitably qualified person, that noise is measured or monitored, and that certain control measures have been considered as part of the plan, such as relocating or enclosing equipment or changing operating times. There could also be a requirement that the plan is submitted to council for approval before being implemented. Management options that are developed to reduce the noise need to be feasible and reasonable.

3. The date(s) when the action required in the Prevention Notice must be completed. If an action plan has been requested then you need to specify a date(s) for the plan to be submitted and implemented.

Where the Prevention Notice is issued to the occupier, but the occupier is not the person carrying on the activity, the occupier must take all available steps to cause the action to be undertaken (POEO Act s.96(4)).

A template for a Prevention Notice is included in Appendix 3 (source: *EPA Guide to Notices 1999*).

Power to issue a Prevention Notice

Only an appropriate regulatory authority can issue a Prevention Notice. Police **do not** have the power to issue Prevention Notices.

A notice can be issued to:

- the occupier of the premises concerned, and/or
- the person carrying on the activity (POEO Act s.96(2)).

The Prevention Notice must be issued in writing.

Appeals

A person given the Prevention Notice may appeal to the Land and Environment Court within 21 days of being served with the Prevention Notice (POEO Act s.289).

Section 99 of the POEO Act states that the Prevention Notice does not take effect until:

- after the appeal period has expired (without an appeal being lodged), or
- until the court has decided an appeal, or the appeal has been withdrawn, or
- the recipient of the Prevention Notice informs the issuer in writing that no appeal will be made.

Offence

A person who fails to comply with the Prevention Notice is guilty of an offence under section 97 of the POEO Act.

The appropriate regulatory authority may require the person concerned to pay for all or any reasonable costs and expenses it incurred in monitoring and ensuring compliance with the notice. See Part 4.2.5 of this Guide.

If a person has not complied with the Prevention Notice the appropriate regulatory authority itself (or its employees, agents or contractors) can take the action that the Prevention Notice required (POEO Act s.98). The appropriate regulatory authority may then require the person concerned to pay for all or any reasonable costs and expenses it incurred in taking that action (POEO Act s.104(4)).

These cost recovery mechanisms are in addition to any prosecution that may be undertaken.

Penalties

A penalty notice can be issued for failure to comply with a Prevention Notice with fines of $750 for an individual and $1500 for a corporation.

A breach of a Prevention Notice can be prosecuted in the Land and Environment Court, with maximum fines being $250,000 for a corporation or $120,000 for an individual. There are also daily penalties for each day that the offence continues.

Administration fee for a Prevention Notice

Cost recovery options for Prevention Notices include an administration fee for serving the notice and a separate Cost Compliance Notice for monitoring or ensuring compliance with the notice.

The administration fee of $320 (at the time of publication) is intended to cover the costs of preparing and giving a Prevention Notice (POEO Act s.100). The fee must be paid within 30 days of receiving the notice. Where the Prevention Notice is appealed, payment of the fee is suspended until the court has decided the appeal. The administration fee is prescribed by clause 61 of the POEO (General) Regulation 1998.

Appropriate regulatory authorities have discretionary power to waive the administration fee or extend the period for payment (POEO Act s.100). Examples of circumstances in which appropriate regulatory authorities might consider waiving the fee are:

- demonstrated cases of hardship or bankruptcy
- where the Prevention Notice has been issued to a charitable organisation
- where the fee is associated with a second Prevention Notice modifying the requirements of a previous Prevention Notice, and the recipient has already paid the fee associated with the initial notice.

4.2.5 Compliance Cost Notices (POEO Act s.104(3) and 104(4))

> Compliance Cost Notices allow an appropriate regulatory authority to recover the costs of monitoring or ensuring compliance with a Prevention Notice.
>
> A separate notice must be served after a Prevention Notice has been given.

Scope

A Compliance Cost Notice can be served to recover the costs incurred by the appropriate regulatory authority for monitoring or ensuring compliance with a Prevention Notice (POEO Act s.104 (3)). It is issued to the person who was issued with the Prevention Notice.

The notice does not include the cost of preparing and issuing a Prevention Notice, which is covered by the administration fee described in the previous section.

Power to issue a Compliance Cost Notice

The appropriate regulatory authority that has issued a Prevention Notice to a person may issue a Compliance Cost Notice. A Compliance Cost Notice must be issued in writing.

Using a Compliance Cost Notice

A Compliance Cost Notice is used to recover the costs associated with monitoring and follow-up action taken as a result of issuing a Prevention Notice. This may include such things as travel to the site to do follow-up inspections, time spent on inspection to ensure conditions of the notice are being complied with, as well as measurements an officer may take to ensure that the conditions of the notice are being complied with.

The authorised officer and the appropriate regulatory authority need to keep accurate records of the time spent in ensuring compliance with the Prevention Notice. The appropriate regulatory authority will need to determine an hourly fee charge for the purpose of issuing Compliance Cost Notices.

A template for a Compliance Cost Notice is included in Appendix 3.

Appeals

There is no right of appeal under the POEO Act.

Payment method

Compliance Cost Notices should specify a time for payment. The notice should also indicate that if the payment is not received by the specified date then the appropriate regulatory authority would take steps to recover the unpaid amount.

Failure to comply

The appropriate regulatory authority may recover any unpaid amounts specified in the notice in a court.

Registering Compliance Cost Notices

Compliance Cost Notices may be registered with the Registrar-General, creating a charge over the land (POEO Act s.106). This charge will cease to have effect either (POEO Act s.107):

- on payment to the appropriate regulatory authority or public authority of the amount concerned, or
- on the sale or other disposition of the property with the written consent of the authority, or
- on the sale of the land to a purchaser in good faith for value who, at the time of the sale, has no notice of the charge.

4.2.6 Noise pollution from operating plant and dealing with materials (POEO Act ss.139–140)

There are two general provisions for noise from premises in sections 139 and 140 of the POEO Act. These relate to the operation of plant and handling of materials, respectively.

Operation of plant causing noise (POEO Act s.139)

A council officer, who is authorised by the council to do so, can prosecute or issue a penalty notice to the occupier of premises where the council officer considers that a noise problem from the premises is being caused by the operation of plant that is poorly maintained or not operated correctly by the operator. In other words, the operator has failed:

a) to maintain the plant in an efficient condition, or

b) to operate the plant in a proper and efficient manner.

An example is the operation of worn conveyor belts causing noise as the loose belt is drawn through the drivers.

Dealing with materials causing noise (POEO Act s.140)

A council officer, who is authorised by the council to do so, can prosecute or issue a penalty notice to the occupier of a premises where the council officer considers that noise is occurring because materials are not being dealt with in a proper or efficient manner by the occupant. For the purposes of this section of the Act:

- 'deal with' means process, handle, move, store or dispose of, and
- 'materials' includes raw materials, materials in the process of manufacture, manufactured materials, by-products, or waste materials.

An example is the practice of throwing or dumping empty glass bottles into steel drums or containers thereby making noise.

No warning is required to be given before issuing a penalty notice or proceeding with a prosecution where section 139 or section 140 of the POEO Act is breached.

4.3 The POEO (Noise Control) Regulation 2000

The POEO (Noise Control) Regulation 2000 streamlines the handling of common neighbourhood noise problems by providing more specific controls than the general powers provided under the POEO Act. The Regulation has three main parts addressing noisy items. These are:

- Part 2, which provides for control of the noise from individual motor vehicles operating on public roads and off-road, including on private property, and noise from motor vehicle accessories such as alarms. Council officers, Police and EPA officers have powers in relation to particular provisions.
- Part 3 deals with noise from marine vessels such as powerboats and jetskis. This part applies mainly to the activities of Waterways Authority officers and Water Police.
- Part 4 deals with common neighbourhood noise problems such as air conditioners, swimming pool pumps, power tools, building intruder alarms and loud music. This part is most applicable for council and Police.

Details of offences which can be dealt with by issuing a penalty notice are listed in the POEO (Penalty Notices) Regulation 1999, which lists the fine and the class of officer who can be authorised to issue a penalty notice for a particular offence.

Table 3 summarises the offences under the Regulation that councils are involved with. In all cases, council authorised officers (including enforcement officers) can issue a penalty notice where an offence occurs in relation to activities for which council is the appropriate regulatory authority.

Table 3 — Offences that Penalty Notices can be issued for by council under the POEO (Noise Control) Regulation 2000

Noise source	Offence	Relevant part of the Regulation	Warning required	Penalty Notice
Motor vehicle used off-road	Cause or permit vehicle to emit offensive noise in place (not road)	Clause 14	No	$200 for individual $400 for corporation
Motor vehicle operated on a residential premises	Cause or permit repeat of vehicle noise after warning	Clause 15(1)	Yes	$200 for individual $400 for corporation
Refrigeration unit fitted to a motor vehicle	Cause or permit repeat of refrigeration unit noise after warning	Clause 16(1)	Yes	$200 for individual $400 for corporation
Motor vehicle sound system	Cause or permit offensive noise from motor vehicle sound system	Clause 17	No	$150 for individual $200 for corporation
Motor vehicle alarm: use of car alarm while vehicle engine running or ignition on	Cause or permit motor vehicle intruder alarm with panic/override switch	Clause 23	No	$200 for individual $400 for corporation

Noise source	Offence	Relevant part of the Regulation	Warning required	Penalty Notice
Motor vehicle alarm sounding continuously or intermittently	Cause or permit use of noisy alarm (for up to **24 hours**)	Clause 24(1)	No	$200 for individual $400 for corporation
Power tools (including powered garden tools, electric power tools, pneumatic power tools, chain saw, circular saw, gas or air compressor) & **swimming pool pumps** (including spa pumps) used on residential premises	Cause or permit repeat of power tool/swimming pool pump noise after warning	Clause 50(1)	Yes	$200 for individual $400 for corporation
Musical instruments and **amplified sound equipment** (includes radio, television, computer, tape recorder, CD player, DVD player or PA system used on residential premises)	Cause or permit repeat of musical instrument/sound equipment noise after warning	Clause 51(1)	Yes	$200 for individual $400 for corporation
Air conditioner used on residential premises	Cause or permit repeat of air conditioner noise after warning	Clause 52(1)	Yes	$200 for individual $400 for corporation
Building burglar alarms sounding continuously or intermittently	Cause or permit use of noisy intruder alarm (for **up to 24 hours**)	Clause 53(1)	No	$200 for individual $400 for corporation
	Cause or permit use of noisy intruder alarm (for **24 to 48 hours**)			$400 for individual $800 for corporation
	Cause or permit use of noisy intruder alarm (for **more than 48 hours**)			$600 for individual $1,200 for corporation

The Regulation applies different methods of control to different neighbourhood noise problems. These controls are:

- preventing the use of certain articles where they can be heard during noise-sensitive periods (e.g. night time)
- placing limits on how long an article can emit noise (e.g. alarms)
- prohibiting the use of certain articles where they emit offensive noise (e.g. off-road trail bikes).

The following discussion of the Regulation groups the noise sources into three areas:

- **miscellaneous articles** (e.g. power tools, amplified music, air conditioners.)

- **alarms** (e.g burglar and car alarms), and
- **motor vehicle related** (e.g. trail bikes off-road, vehicle sound systems, truck-mounted refrigeration units).

4.3.1 Miscellaneous articles

Power tools and swimming pool pumps
Musical instruments and sound systems
Domestic air conditioners

The Regulation identifies times when certain items must not be used in residential premises so as to be audible inside a habitable room of another residence (whether windows and doors are open or not). Items with restricted times of use include:

- power tools and swimming or spa pool pumps (POEO (Noise Control) Regulation, clause 50)
- musical instruments and sound systems (POEO (Noise Control) Regulation, clause 51)
- air conditioners (POEO (Noise Control) Regulation, clause 52).

Table 4 provides details of the restricted time of use for each item.

Table 4 — Restricted times of use

Type of noise	Times during which restrictions apply
Power tools and swimming/spa pool pumps (POEO (Noise Control) Regulation, clause 50)	Before 8am or after 8pm on Sundays and public holidays Before 7am or after 8pm on any other day
Musical instruments and electrically-amplified sound equipment (POEO (Noise Control) Regulation, clause 51)	Between midnight and 8am on any day
Air conditioners (POEO (Noise Control) Regulation, clause 52)	Before 8am or after 10pm on weekends or public holidays Before 7am or after 10pm on any other day

What constitutes an offence?

Simply operating an item during restricted hours set out in the Regulation is not immediately an offence. A warning needs to be given and contravened before an offence against the 'time of use' provisions of the Regulation is committed.

Any person can give the warning. However, it is preferable for an authorised officer to issue the warning so that if it is necessary to issue a penalty notice, the officer can be sure the warning has been given correctly. An authorised officer can give a warning verbally or in writing. The warning needs to be given within seven days of the noise occurring. If the item is operated outside permitted hours within 28 days of the warning, and the noise is audible inside a habitable room in another dwelling, then an offence has been committed.

A warning must be clear and be understood by the person receiving it. Ideally, it should be confirmed in writing. The person receiving the warning should:

1 understand that the warning has a legal basis. This could be achieved by referring to the relevant clause in the Regulation or by giving the person a copy of the clause

2 appreciate what they are required to do. This means understanding that they must not cause or permit the particular noise to be emitted within 28 days of the warning being issued

3 understand that they will commit an offence if they do not comply.

A contravention of a 'time of use' provision occurs where noise from these items can be heard within a habitable room of any residential premises during restricted hours (regardless of whether any door or window to that room is open).

Once an offence has been committed, an authorised officer can issue a penalty notice or bring a prosecution in court, provided there is adequate evidence to support the case. Evidence that may help support enforcement action could include a signed statement from witnesses, identifying the source (if known) and nature of the noise, when and where it was heard, an indication of its volume and its effects on them.

If necessary, a Noise Abatement Direction could be used to control offensive noise, regardless of hours of use, as this provision of the POEO Act applies at all times (see Part 2.3, Offensive noise).

4.3.2 Alarms

Motor vehicle intruder alarms

Building intruder alarms

The Regulation limits the duration that a building or car intruder alarm may sound for. Time limits for alarms manufactured after certain dates are presented in Table 5.

No warning is required for an offence to occur.

Table 5 — Restricted duration of noise from alarms

Type of noise	Restrictions on the duration of the noise emitted
Motor vehicle intruder alarm (POEO (Noise Control) Regulation, clause 24)	More than 90 seconds if the vehicle was manufactured before 1 September 1997, or More than 45 seconds if the vehicle was manufactured on or after 1 September 1997
Building intruder alarm (POEO (Noise Control) Regulation, clause 53)	Sound is audible in a habitable room of a residential premises, and sounds for more than: 10 minutes if the alarm was installed before 1 December 1997, or 5 minutes if the alarm was installed after 1 December 1997

The Regulation provides that where an alarm sounds intermittently, it is taken to sound continuously for the purpose of measuring the duration for which it has sounded. For example, a car alarms that sounds for 70 seconds, stops for 60 seconds and sounds again for 70 seconds, is taken to have sounded for more than the permitted 90 seconds. This approach applies for both building and car alarms.

What constitutes an offence?

In the case of a building alarm, an offence occurs if the alarm sounds for longer than the specified time limit **and** it is audible inside a habitable room of a dwelling. In the case of a car alarm, an offence occurs if the alarm sounds for longer than the specified time limit. However, it would not be an offence if the alarm sounds and the car has been involved in an accident, or has been damaged or broken into.

Although the Regulation provides different time limits for alarms manufactured (cars) or installed (buildings) before and after December 1997, this can often be difficult to determine. If in doubt, the alarm can be assumed to have been manufactured before December 1997 and the greater of the two time periods applied for a building or car alarm sounding. If the matter goes to court, however, it will not be sufficient to assume that the alarm was installed before December 1997 – evidence will need to be given to establish when the alarm was installed. For cars, the date of manufacture of the vehicle is recorded on the vehicle's compliance plate which is located in the engine compartment.

Options for dealing with noisy alarms

When an alarm is sounding for longer than permitted and is causing a disturbance, an authorised officer has several options, including :

- contacting the owner or occupier of the building or vehicle and asking them to stop the alarm
- issuing a penalty notice where an offence has occurred

In certain circumstances (described below), council authorised officers can also enter premises (except vehicles) where an alarm is sounding and disable the alarm (POEO Act, Part 7.4).

Contacting the owner or occupier

The owner of a property may be traced through council's rates database and other information available to council. Councils may also consider developing a register of building alarms (both monitoring and stand-alone), with contact details for owners and occupiers in the event that an alarm is activated. This may facilitate disabling an alarm with the help of the person responsible for the property. Real estate agents may also hold spare keys or alarm codes for premises they administer.

Contacting the security company that monitors an alarm (as may be displayed on a window sticker) may also provide information about contacting the owner or having them disable the alarm.

A car alarm hotline is also available for the public to report faulty car alarms. This service is provided by the Australian Car Alarm Traders Association and details can be found on their website.

Issuing a penalty notice for sounding alarms

The POEO (Noise Control) Regulation provides tiered penalty levels so that a higher penalty is incurred for alarms that sound for longer periods. Where an alarm sounds for more than 24 hours the penalty level is doubled. Where the alarm rings for longer than 48 hours the penalty level is trebled.

The penalty notice can be posted or delivered personally to the vehicle owner, as provided by section 224 of the POEO Act. In the case of a building alarm sounding where there is no person available to serve a penalty notice to, then posting the notice is appropriate.

Entering premises (building alarms)

A council authorised officer may believe that the severity of the impact from a sounding alarm is such that taking action to disable the alarm is necessary. This may be the case when an alarm is making offensive noise for a long period (e.g. several hours or days) and where the owner or occupier cannot be contacted.

All other options for contacting the owner and dealing with a noisy alarm should be evaluated before deciding that entering the premises is necessary to prevent the offensive noise from being emitted.

It is recommended that councils develop and adopt internal procedural guidelines for dealing with noise complaints relating to alarms. Having a formal procedure in place will allow council authorised officers to know with confidence that they are acting in accordance with council policy when taking action such as seeking a warrant to enter residential premises.

Under Part 7.4 of the POEO Act, a council authorised officer can exercise a power of entry for the purposes set out in section 184, which provides that the power of entry may be exercised for the purposes of:

1) determining whether there has been compliance with or a contravention of the POEO Act or Regulations, or a notice or requirement issued or made under that Act (e.g. the offence of causing or permitting the use of a noisy building intruder alarm under clause 53 of the POEO (Noise Control) Regulation)
2) administering the Act and protecting the environment generally.

Council authorised officers can only exercise the power of entry where the council is the appropriate regulatory authority. Council enforcement officers (i.e. officers with the power to issue penalty notices under the POEO Act) can exercise this power of entry if it is being exercised in respect of the officer's functions as an enforcement officer. (See POEO Act ss.188(3) & 189A).

Council enforcement officers do not have any powers where the alleged offence relates to activities or work licensed under the POEO Act, or relates to activities carried on by the State or a NSW public authority (POEO Act s.226(3)). Further, council authorised officers and council enforcement officers can exercise their powers under the POEO Act only in or in relation to their council area (POEO Act s.6(4)). In most cases, councils are the appropriate regulatory authority for residential premises in their council area, and council authorised officers and enforcement officers will be able to exercise their powers in relation to those premises.

An authorised officer can enter premises at any time (subject to POEO Act s.197 in relation to residential premises) where the officer reasonably suspects noise pollution has been, is being or is likely to be caused (POEO Act s.196(1)(b)). Noise pollution means the emission of offensive noise, i.e. the noise being made by the alarm must fall within the POEO Act's definition of 'offensive noise' for the entry to be authorised under section 196(1)(b). If the noise is not offensive noise, then the authorised officer or enforcement officer could enter the premises at a 'reasonable time' relying on section 196(1)(c). Alternatively, the authorised officer or enforcement officer could enter the premises under section 196(1)(a) if the officer reasonably suspects that any industrial, agricultural or commercial activities are being carried on at the premises, at any time that those activities are being carried out there.

No one has the power under the POEO Act to enter any part of premises used only for residential purposes without either the permission of the occupier or a warrant (issued under section 199 for authorised officers of the appropriate regulatory authority or enforcement officers)—see section 197.

The provisions of the *Search Warrants Act 1985*, which apply to warrants issued under section 199 of the POEO Act, do not require the premises to be occupied when the warrant is executed. However, the *Search Warrants Act 1985* does require that an 'occupier's notice' is served on the occupier as soon as practicable after executing the warrant if there is no-one at the premises who appears to be 18 years or over and to be the occupier.

The magistrate who authorises the warrant must also issue the occupier's notice, which must contain a summary of the nature of the warrant and the powers conferred by the warrant. An occupier's notice must specify:

- the name of the person who applied for the warrant
- the name of the authorised justice who issued the warrant
- the date and the time when the warrant was issued, and
- the address or other description of the premises that is the subject of the warrant.

More details are provided in section 15 of the *Search Warrants Act 1985*.

Authorised officers and enforcement officers can use reasonable force to enter premises and can engage the assistance of Police officers and other people capable of helping with exercising functions under the POEO Act.

An authorised officer or enforcement officer has the power to switch off the alarm under section 198(1) if the officer is of the opinion that switching off the alarm would be for the purposes set out in section 184 (see above). Section 198(2) specifically lists some of the actions that an officer may take under section 198(1), and this includes seizing the alarm where the officer has reasonable grounds for believing that the alarm is connected with an offence against the POEO Act or the Regulations. (In relation to an enforcement officer, the offence concerned must be one for which the officer can issue a penalty notice.)

Police powers of entry for alarms

Police do not have the power to enter premises for the purpose of disabling an alarm (POEO Act, Part 7.4). Police officers only have the power to enter premises (with a warrant) to serve a Noise Abatement Direction or to investigate if the direction has been breached (POEO Act s.280).

However, police could seize or secure a sounding alarm under section 282 of the POEO Act, but only if the alarm is being used to contravene a Noise Abatement Direction and the person in charge of the alarm has been warned that its continued use may lead to its seizure (POEO Act ss.275–279). See Part 4.2.2 of this Guide.

Liability for damages

The council could be liable to pay compensation for any damage caused by the authorised officer or enforcement officer in exercising a power of entry, unless the occupier obstructed or hindered the officer in the exercise of that power (POEO Act s.202). It is also possible that compensation may be payable for any damage caused by the officer in exercising other powers

while at the premises (e.g. in relation to switching off or seizing the alarm). The council should obtain its own legal advice if it is concerned that damage may be caused by its actions.

Before utilising a power to seize or switch off an alarm, councils and council officers should consider issues such as:

- the ongoing security of any premises that have been legally and forcibly entered
- technical difficulties that may be encountered in disarming sophisticated alarm or security systems
- damage that may occur to the occupier's or owner's property as a result of disarming the alarm (e.g. if the power is switched off or the alarm system is damaged)
- the question of whether compensation will be payable to the occupier or owner for any damage caused by the actions of a council officer.

4.3.3 Motor vehicle noise

Provisions enforced by council and Police include:

- Use of motor vehicles on residential premises
  (POEO (Noise Control) Regulation clause 15)
- Refrigeration units fitted to motor vehicles
  (POEO (Noise Control) Regulation clause 16)
- Vehicles operating in places other than roads e.g. trail bikes
  (POEO (Noise Control) Regulation clause 14)
- Motor vehicle sound systems
  (POEO (Noise Control) Regulation clause 17)

Vehicle noise is addressed in two ways, discussed in detail below:

- restricted times for vehicles on residential premises and for refrigeration units fitted to vehicles, and
- offensive noise provisions for vehicles used off-road and for vehicle sound systems.

Table 6 — Restricted times of use for vehicles

Type of noise	Times for which restrictions apply
Motor vehicle used on residential premises (except when entering or leaving) (POEO (Noise Control) Regulation, clause 15)	Before 8am or after 8pm on any Saturday, Sunday or public holiday Before 7am or after 8pm on any other day
Refrigeration unit fitted to a motor vehicle (POEO (Noise Control) Regulation, clause 16)	

Motor vehicles on residential premises

A vehicle must not be operated on residential premises so that it can be heard in a habitable room of another residential premises within the restricted times, apart from when the vehicle is entering or leaving the premises. An offence will be committed where the required warning has been issued and the vehicle is operated in such a manner within 28 days of the warning. An example of where this clause would apply is where a vehicle at a residential premises is being revved or the engine left running for an extended period. As a guide, an extended period might be longer than 5 to 10 minutes.

This clause does not cover the noise from an engine if the vehicle is on a public road. This situation is covered by Rule 291 of the Australian Road Rules (applied in NSW under the Road Transport (Safety and Traffic Management) (Road Rules) Regulation 1999) which makes it an offence to start or drive a vehicle in a way that makes unnecessary noise. Police and RTA officers can enforce this.

Refrigeration units on motor vehicles

This clause is intended to apply to vehicles fitted with refrigeration units used to keep freight cold. An example might be frozen food delivery trucks parked with their refrigeration units left running for extended periods.

Conditions under which restricted times of use apply, including the provision of warnings, the definition of habitable room and the noise test applied are the same as described in Part 4.3.1 of this Guide.

Vehicles operating in places other than roads (POEO (Noise Control) Regulation clause 14)

'Places other than roads' means places other than an area open to the public, or used by the public, which was developed for, or has as one of its main uses, the driving or riding of motor vehicles. Examples include the use of trail bikes and four-wheel drive vehicles and dune buggies operating in places other than roads. This may include private or public land, fire trails, bushland and recreation areas.

The regulation makes it an offence for vehicles operating in off-road locations to cause offensive noise. This could include noise affecting neighbours, people enjoying passive recreation on adjoining parks, or pedestrians.

Sound systems in motor vehicles (POEO (Noise Control) Regulation clauses 17 and 17A)

Offensive noise can result from motor vehicle sound systems operated at high volume. Often the music played in motor vehicle sound systems may have the majority of energy in the lower frequencies. Such noise can travel further and is less attenuated by building facades.

Clause 17 makes it an offence for 'a person to cause or permit the sound system of a motor vehicle to be used in such a manner that it emits offensive noise'. Clause 17A took effect from 1 July 2002 and is very similar to clause 17 except:

- Under clause 17A, only the driver of the vehicle can be guilty of an offence, and demerit points will be recorded against the licence of a driver who is fined. As the vehicle must be pulled over to issue a fine, only the EPA and Police can enforce this clause, and

- Clause 17A applies where the motor vehicle is being driven or used on a road or road-related area, whereas clause 17 does not contain any limitations regarding the location where the motor vehicle is being used.

Offensive noise is assessed by an enforcement officer. No general noise limits apply to situations covered by offensive noise requirements. Section 2.3 provides details on how to assess whether noise is offensive.

Penalties

Council officers do not have the power to stop vehicles. Where an offence has occurred under clause 14 or 17 of the POEO (Noise Control) Regulation, both the driver and the owner of the vehicle are taken to be guilty of the offence (see POEO (Noise Control) Regulation clause 20A). This means that if a council enforcement officer wishes to issue a penalty notice, then it can be posted to the owner of the vehicle. The owner will not be liable if the owner was not in the vehicle at the time and provides a written statement nominating the driver at the time of the offence.

Equity in penalties

Clause 20A of the POEO (Noise Control) Regulation allows the owner of a vehicle issued with a penalty notice for offensive noise under clause 14 or 17 to nominate the driver as the offender where the owner was not in the vehicle at the time of the offence. This means that the person responsible for causing the offensive noise would be responsible for paying any fine (the penalty notice issued to the owner must be withdrawn and new one issued to the driver).

A similar system applies in relation to noise from vessels (see POEO (Noise Control) Regulation, clause 30A), littering from motor vehicles (see POEO Act s.146), as well as for speeding and parking offences under the road transport legislation.

4.4 Dealing with offences

Offences under the POEO Act and POEO (Noise Control) Regulation can be prosecuted in a court. Alternatively, penalty notices can be issued. **The choice of taking either prosecution or penalty notice proceedings is available for all offences that are administered by councils.**

Prosecutions for offences against the POEO Act and the POEO (Noise Control) Regulation are criminal offences and must be proved beyond reasonable doubt. Sections 217, 218 and 219 of the POEO Act identify who may institute criminal proceedings and for which offences.

Maximum fines for a prosecution of an offence against the POEO Act or Regulations are generally listed with the relevant section or clause.

The *EPA Prosecution Guidelines* provide guidance on deciding when to prosecute or issue a penalty notice when an offence has been committed. Some of the things to consider when deciding whether to prosecute or issue a penalty notice for a breach of the POEO Act or Regulations are listed in Table 7 below:

Table 7 — To prosecute or issue a penalty notice

Prosecution	Penalty notice [1]
Serious breach of the Act or Regulations. Problem is a continuing situation where previous enforcement action has been unsuccessful. Education and other enforcement actions have failed to change behaviour. More important to address the serious breach. Larger penalty more suitable for the nature of the offence. Want to deter similar offences—successful prosecution may help change others' behaviour.	Minor breach of the Act or Regulations. The facts are obvious. Problem is a one-off situation and can be remedied easily. Up to 2 penalty notices may be reasonable for the same type of offence. A penalty notice is likely to be a viable deterrent. Opportunity to educate the noisemaker given that penalty notice is immediate. Smaller fine is suitable for the nature of the offence.

[1] Note: where a penalty notice has been issued and it becomes apparent that the offence is too serious to be dealt with by penalty notice, the notice can be withdrawn within 28 days of being served (even if the penalty required by the notice has been paid) and a prosecution can proceed (see POEO Act s. 228).

4.4.1 Dealing with offences committed by minors

Issuing penalty notices to people under 18 (minors) can be complex. In many cases it will be more appropriate to issue a warning because special procedures apply when interviewing, issuing penalty notices or taking court action against children.

Where it is deemed appropriate to issue a penalty notice to a young person legal advice should be sought.

- For children less than 10 years of age, it is not possible to issue a penalty notice as they are presumed incapable of being guilty of an offence. In addition the Fines Act specifically excludes children under 10 years old from being fined.
- Children aged 10 to 14 years can be issued with a penalty notice. However, if the matter was referred to the court for consideration then the prosecutor (e.g. council) would need to show that the child knew that what they were doing was wrong. The matter would be heard in the Children's Court and lower penalties would apply.

Young people aged 15 to 17 years old can be issued with a penalty notice. If the penalty notice is referred to court it would be heard in the Children's Court and lower penalties would apply.

Part 5 Case studies

Case studies — noise management tools

Case study 1 — Using a Noise Control Notice

Case study 2 — Using a Prevention Notice and a Compliance Cost Notice

Case study 3 — Using a Noise Abatement Direction involving offensive noise

Case study 4 — Using the POEO (Noise Control) Regulation, 'time of use' provisions

Case studies — noise sources

Case study 5 — Noise from garbage collection

Case study 6 — Noise from an open air concert & public address system

Case study 7 — Noise from a motor sport facility

Case study 1 — Using a Noise Control Notice

Noise from commercial premises affecting residents

Wylawong Council received a complaint from a resident about noise from the exhaust fan at the Happy Tucker Takeaway. The takeaway operates from 11am until 1am, which is consistent with the development consent for the premises. The neighbour has told council that it is the noise of the exhaust fan operating at night that is the main problem.

Helen, the Council Environmental Health Officer (EHO) knew that council was the appropriate regulatory authority for such a premises even though there had never been any previous problems with the Happy Tucker Takeaway. She visited the site during the day and could see that the exhaust system was very old and pretty noisy. The ducting was loose-fitting and rattled, while the exhaust fan had a distinctive whine and was also very noisy. She decided that she needed to measure the noise from the exhaust system. She thought a Noise Control Notice would probably be the most appropriate instrument to use in this situation, as there is only one noise source. There was certainly work that could be done to reduce noise, and it was reasonable to set an acceptable noise limit that needed to be met.

Helen measured the noise from the takeaway shop's exhaust system during the day, during her initial visit and also late at night, just after midnight, as the complainant had identified night time operation as a particular problem. Helen also took background noise measurements ($L_{A90,15min}$) in the morning just before the exhaust fan was turned on and at night just after the fan was turned off.

Helen applied the intrusive noise criteria (background plus 5 dB(A)—see Part 2.4.1, *Intrusive noise)* to determine if noise from the exhaust system was likely to be intrusive. She compared the intrusive noise criteria (background plus 5 dB(A)) to her readings of the exhaust system operating. Helen's results are recorded in the following table.

Noise measurement results – Happy Tucker Takeaway exhaust system

	Background noise level (without exhaust system)	Noise limit on notice (B/g +5 dB(A))	Noise from exhaust system	Reduction required
Day (11am–10pm)	47 dB(A) $L_{A90\ 15min}$	52 dB(A) $L_{Aeq\ 15min}$	55 dB(A) $L_{Aeq15\ min}$	3 dB
Night (10pm–1am)	41 dB(A) $L_{A90\ 15min}$	46 dB(A) $L_{Aeq\ 15min}$	54 dB(A) $L_{Aeq15min}$	8 dB

Clearly, noise from the exhaust system was intrusive during the night and marginal during the day. The whine from the fan could also have justified a tonal adjustment to the measured noise levels (see correction factors in Appendix 1), but Helen decided that if the exhaust system were properly repaired the whine would also be fixed. Helen decided that she would include a note regarding tonality in the notice.

The noise control notice she prepared required that:

> *noise from the exhaust system at the premises, including ducting and fan, must not exceed the following noise limits when measured at a point on the rear boundary with 15 Currajong Street and 2 metres from the northern boundary:*
>
> - *during daytime (7am – 10pm) 52 dB(A) $L_{Aeq\ 15min}$;*
> - *during night time (10pm –7am) 46 dB(A) $L_{Aeq\ 15min}$.*
>
> *NOTE: When measuring the noise level for compliance purposes, corrections may need to be added to the measured noise level if the noise contains dominant tonal, low frequency, impulsive or intermittent components as defined in the NSW Industrial Noise Policy.*

Helen advised the complainant of her actions and indicated that the notice had a 21-day appeal period before the notice took effect. Helen was contacted by the proprietors shortly after receiving the notice and advised that a contractor would be looking at the system. Helen advised the proprietor that before executing any building works they should consult with council's planning department to check whether development consent would be required.

After the work was completed, Helen conducted an inspection of the takeaway shop and noted a significant noise reduction at the boundary assessment location. Noise measurements indicated that the noise limit was not exceeded. The complainant also acknowledged a significant noise reduction. Helen then noted the notice as complied with.

Case study 2 — Use of a Prevention Notice and a Compliance Cost Notice

Joe's Cabinet-making Shop has been operating at the end of a residential street for over ten years. The area is a mixed-use zone with houses on Dixon Street on the opposite side to Joe's Cabinet-making Shop. Joe's business has grown progressively, and much of the work is now carried out in the open in what was once a parking area.

Council received a noise complaint from two of the closest residents. They had a number of issues that were concerning them. The timber storage area had a circular saw which operated on and off throughout the day. Other power tools were also clearly heard in the neighbouring houses. Joe's cyclone (dust extraction system) was also contributing to complaints, as it had not been well maintained, and rattled away, creating noise that intruded on the surrounding neighbourhood. Joe also listens to the radio while working, as it helps him concentrate. At the

time of the complaint Joe had recently received a few big orders and had extended his operating hours. He was now working Monday to Saturday, until 10pm most nights, having started at 7 am.

Before visiting the premises, Claudia (the council's EHO) checked council files and found that Joe's development consent was quite old and did not contain any conditions regarding hours of operation or noise limits. Claudia then visited the site to investigate the neighbours' noise complaints. She noted the noise from the cyclone, circular saw and the various power tools. All were clearly audible in the neighbour's properties. She noted these observations and described the nature of the noise and the locations of the various items of equipment in her notebook. Claudia also decided to take noise measurements. The background noise level in the area at 10.30 am was $L_{A90,\ 15\ minute}$ 37 dB(A). This meant that the intrusive noise criteria from the *NSW Industrial Noise Policy* would be $L_{Aeq,\ 15\ minute}$ 42 dB(A).

Claudia then took several noise measurements during periods when the activities of Joe's Cabinet-making Shop were clearly audible and dominating the acoustic environment. Claudia recorded the following measurements and noted the activities in Joe's premises that were audible: $L_{Aeq,\ 15min}$ 52, 54 and 58 dB(A).

Claudia visited Joe's Cabinet-making Shop and told Joe that council had received a complaint about noise from his factory, and that based on her observations and initial noise measurements the noise was unreasonable. Joe was not pleased. She asked him about some of his work practices, such as work being done in the old parking area, use of the circular saw in the open and his operating hours. Joe insisted it was his right to carry on his business whatever way he saw fit. Claudia advised that she would be in touch again to discuss what Joe would need to do to improve the situation.

From previous experience with similar operation, Claudia formed the opinion that Joe's activities were not being carried on by such practicable means as may be necessary to prevent, control or minimise the emission of noise. That is, the activities at Joe's workshop were being carried out in an 'environmentally unsatisfactory manner' within the meaning of the POEO Act.

Claudia decided to serve a Prevention Notice on Joe's Cabinet-making Shop to ensure Joe addressed the noise problem. The Prevention Notice required Joe to prepare an action plan to prevent, minimise or control noise from the activities at the workshop and to submit it to council for approval within 4 weeks (commencing from the end of the 21-day appeal period). The notice also required, conditional on council's approval, that the action plan be implemented within a timeframe to be determined when the plan was accepted by council. The Prevention Notice specified that the written action plan should:

- be prepared by an accredited acoustical consultant
- identify possible mitigation measures including the operating time, location and use of equipment and the cost effectiveness of installing noise insulation for equipment
- be completed within four weeks (of the end of the appeal period), and
- be implemented once council was satisfied that the plan was suitable to address the noise impacts.

Claudia considered a Prevention Notice more appropriate in this situation as there were many noise sources and the noise problem was mostly due to the poor management of the noise impacts. An administration fee of $320 was charged for preparing and issuing the notice.

Claudia advised the complainants of her action and let them know that the notice had a 21-day appeal period, during which time the notice would have no effect. Claudia revisited Joe's premises after the appeal period and enquired about his progress. Joe advised that he had not yet

taken any steps to comply with the notice, as he had been busy. Claudia advised Joe that non-compliance with the notice was an offence and that he could be fined if the requirements of the notice were not met by the date specified.

Joe subsequently submitted an action plan that addressed the noise problem through both operational and engineering measures. Claudia indicated to Joe that the action plan should be implemented as soon as possible.

Claudia subsequently spent considerable time checking compliance with the Prevention Notice in regard to implementation of the action plan, as Joe was slow to respond. She discussed the possibility of serving a Compliance Cost Notice with her manager as she had kept good records of monitoring and compliance activities. This would require Joe to pay the reasonable costs incurred by council in ensuring the notice was complied with.

Following implementation of the recommendations of the action plan, the impact of the operations of Joe's business was significantly reduced as Joe was now taking practicable means to control, prevent and minimise the emission of noise.

The complainants were advised of the result of council action. The complainants also acknowledged a significant noise reduction. Claudia then noted the notice has been complied with.

Case study 3 — Using a Noise Abatement Direction

A noisy stereo

Council had received several calls from residents complaining about loud music from another house in Cambridge Street. Steve, the council officer, went to investigate and could hear the loud music as he turned into the street. Steve initially visited the complainant's premises to evaluate the noise at their premises. At the complainants' premises, Steve considered the definition of offensive noise in the POEO Act (see the list of offensive noise considerations in Part 2.3 of this Guide). He decided that the music was definitely offensive noise as it was dominating the whole neighbourhood, and was very likely to be interfering unreasonably with the comfort or repose of people in several houses.

When he arrived at the property the music was so loud that the resident did not hear his knock at the door or hear him call out. After eventually gaining the attention of the noisy resident Steve decided to issue a Noise Abatement Direction. The direction required that offensive noise from the stereo must not be made for 28 days. The noisy resident turned the volume of the stereo down after the council officer gave the Noise Abatement Direction.

Later the same day, council received more complaints about loud music from the same house. Steve visited again and performed an assessment of the noise and found that the stereo was being played so loudly that it was again offensive and in breach of the Noise Abatement Direction that had been given earlier that day.

Steve decided to issue a penalty notice to the noisy resident as the occupier of the premises for the offence of *'contravening a noise abatement direction'*, with an on-the-spot fine of $200. He also warned the resident that if he persisted in playing his stereo so loudly while the direction was in place, then he could be issued with another penalty notice or prosecuted. Steve also explained to the noisy resident that the police could also seize his stereo.

Steve later advised the complainants of the action he had taken, and informed the complainant that clause 51 of the Regulation provided additional controls so that amplified music should not be audible inside a habitable room of the neighbours' house after midnight.

Case study 4 — POEO (Noise Control) Regulation, time of use provisions

A swimming pool pump operated until 11pm on most nights during the summer. A neighbour disturbed by the noise had previously asked the pool pump owner (who was also the occupier of the premises) to stop the noise. When that didn't stop it the resident then complained to council.

Dave, an authorised officer, visited the site during the day and established that the pump could clearly be heard in the complainant's home. He reasoned that if it was clearly audible during the day then it certainly would be audible during the restricted times as set out in clause 50 of the POEO (Noise Control) Regulation. He then gave a warning under the Regulation to the owner of the pool pump, as he was satisfied from statements from the complainant that the pump had been audible within a bedroom during restricted hours within the last seven days. He also asked the complainant to make a written record of the date and time when any further occurrences of the noise took place.

Despite the warning given to the owner of the pool pump, council received more complaints from the neighbour. A council ranger visited the neighbour's premises after 10pm that evening and heard the pump operating, from within the complainant's bedroom. Based on the evidence of the ranger, Dave was satisfied that the warning had been breached and served a penalty notice on the owner of the pool pump.

The complainant was told what had been done about the problem, and advised to contact council if the problem persisted.

If a ranger had been unable to attend the premises:

- Dave would have asked the complainant to make a signed statement that the pump was audible inside a habitable room in his home during restricted hours (specifying the dates and times when he heard the pump) and how it was affecting him. The record of times kept by the complainant of when the noise was heard would have helped in making the statement.
- Dave could also have considered whether he had enough evidence to issue a penalty notice. To do so, he would have had to assess whether the evidence provided by the complainant was credible and reliable, and whether there was enough evidence to prove the offence was committed should the pool pump owner elect to have the matter heard in court. Dave may also have considered whether the complainant would be willing to give evidence as a witness in court.

Case study 5 — Noise from garbage collection

Council received a complaint from residents about noise from garbage collections at the local supermarket in the early hours of the morning, usually about 2.30am. Noise from the rubbish collection included squealing brakes, reversing alarm and hydraulic arms to lift the large rubbish bins, the compactor, and the impact of the empty bin hitting the ground.

The council officer investigating the complaint decided to contact the supermarket and find out which company collects the rubbish. It was established that the contractor was not collecting the rubbish on behalf of the council. The officer also asked the supermarket manager why collections are scheduled for 2.30am. The supermarket manager explained that they are open until midnight and so rubbish collection needs to occur when there is little traffic to ensure the safety of customers and other motorists.

The manager told the council officer the rubbish contractors were Ray's Rubbish Removals. The supermarket manager agreed to discuss the possibility of either earlier or later rubbish collections with the rubbish contractors.

The council officer also contacted Ray of Ray's Rubbish Removals and explained that a number of residents had made complaints about the noise of the collections. He asked if collections could occur before 11pm or after 6am. Ray said he would see what he could do, but explained that the route was pre-arranged.

Options the council officer has for resolving this problem are:

- negotiating a change to the rubbish collection, with both the supermarket manager and Ray the rubbish contractor. The council officer has asked the residents what times they would consider acceptable for rubbish collections at the supermarket. They indicated that collections before 10pm or after 7am would be more acceptable, especially if the truck was a bit quieter.
- discussing options for better management of the rubbish collection services with the rubbish contractor and supermarket manager. Improved management practices could include:
  - setting appropriate times for the rubbish collection
  - relocating where the collection occurs
  - building noise barriers for the collection area
  - using up-to-date equipment which uses 'quieter' technology such as low-noise bin lifters
  - maintaining rubbish trucks and braking materials to minimise or eliminate noise such as squeaky brakes
  - educating drivers and collectors to be careful and to implement quiet work practices.
- serving a Noise Control Notice or a Prevention Notice on the occupier of the premises (supermarket operator) or person carrying on the activity (Ray's Rubbish Removals). In order to issue a Prevention Notice the council officer would need to be satisfied that the garbage collection was being carried on in an environmentally unsatisfactory manner. That is, without taking such practicable means as may be necessary to prevent, control or minimise the emission of noise.
  - A Noise Control Notice would prohibit noise emissions above a specified limit (when measured at a specified point) at certain times from the rubbish collection activity. This would require noise measurements to be taken when the rubbish was being collected.
  - A Prevention Notice would require certain action to be taken to ensure the rubbish collection activity was carried out in an environmentally satisfactory manner. The Prevention Notice could restrict the operating hours for the rubbish collection at the site or could require relocation of collection areas.
- discussing options for new contract specifications for garbage collection with the supermarket manager to address potential future noise problems.
  - The POEO (Noise Control) Regulation 2000 requires mobile garbage compactors to be labelled, showing the maximum noise level of the compactor. This is intended to provide the purchaser with the choice of buying quieter rubbish trucks.

In this instance, discussions with the supermarket manager and rubbish collector led to an agreement to conduct collections outside the period from 10pm to 7am, and to consider whether the collection site could be changed. The rubbish collector agreed to talk to the drivers about keeping the noise to a minimum. The council officer advised the supermarket manager that he

would prepare a Prevention Notice to formalise the new operating times and that he would notify the complainant of the outcome. They agreed that the situation would be reviewed in 6 months, or less if more complaints were received in the interim.

Case study 6 — Open air concert and public address systems

Last year council was inundated with complaints about noise from the annual community music festival. As in previous years, the organiser of this year's event had planned to have three music stages with musicians playing almost continuously around the clock over the three days of the festival.

This year council's EHO attended meetings of the festival organising committee and provided advice to the organisers about sanitation, food handling and managing noise from the festival. The preparation of most aspects of the event was generally very good but the council officer wanted to ensure that noise was managed better than in previous years.

To avoid a repeat of the previous year's noise complaints, council negotiated operating hours with the organisers so that performances finished at 11pm, rather than going on past midnight as they had done last year.

In order to ensure that the level of noise produced was reasonable, council decided to issue a Noise Control Notice to the event organisers, which specified the acceptable noise limits and the operating times in advance of the event. It specified that the L_{Amax} noise level from the concert activities must not exceed 75 dB(A) at the nearest residential boundary, the location of which was also specified.

> Note: If aspects other than noise from the event had been of concern, council may have decided to issue a Prevention Notice and covered these concerns and noise issues in the same notice.

The notice was issued to the event organiser over three weeks before the event to allow for the 21-day appeal period.

Council helped the organisers choose the orientation and location of the three main stages and the location of amplification equipment so that they were as far away from residential areas as possible.

In addition to the Noise Control Notice, council asked the organisers to develop and implement a noise management plan, in consultation with council. The noise management plan included:

- siting the three stages so they are as far away from residents as possible, and using the topography of the site and an old spectator stand at the football ground to provide some shielding
- orienting stages and speakers away from residential areas
- instructing sound engineers for each stage to keep the bass noise down
- keeping the local community informed about the music festival operating times and providing them with a contact number for the event manager.

The community also had input into the noise management plan.

Noise mitigation measures for the PA system used for crowd control purposes and announcements included:

- only nominated people were permitted to use the PA system
- the system was not to be used for providing commentaries

- speakers were small low-power units (horn <20 cm across & amp <30 watts)
- speakers were mounted at a downward 45 degree angle
- speakers were located as far down the poles as possible
- units were attached to a sound level limiter, so a maximum noise level could not be exceeded regardless of volume control or commentator's voice. This included removing the volume control after a suitable volume was been preset.

The council officer also participated in the sound check the day before the festival. This involved playing music from each of the three stages and taking noise measurements at a number of nearby residential locations. This helped both the event organisers and the council to establish suitable volumes for the event. Following the sound check the event organisers were confident that the noise limits specified in the Noise Control Notice could be met.

Noise monitoring by council officers during the event indicated that the Noise Control Notice had been complied with, and it was subsequently noted as finalised.

Note: Only the appropriate regulatory authority can issue a Noise Control Notice. The EPA (not the local council) is the appropriate regulatory authority for outdoor entertainment activities (e.g. concerts, festivals and cinematic, theatrical and sporting events) which involve at least 200 people and for sound amplification equipment at the premises specified in clause 67 of the POEO (General) Regulation (e.g. at the Royal Botanic Gardens, the Domain, Centennial Park and Darling Harbour).

Case Study 7 — Managing noise from a motor sport facility

Council received enquires about a proposal to establish a motor racing facility, which would include drag racing and circuit racing. Council advised that any proposal for such a facility would require a noise assessment predicting noise impact from the proposed development. Council further advised that the noise assessment should be undertaken in two stages. The first stage would focus on site planning, thereby providing input into the facility location, siting and orientation. The second stage would address operational noise impacts.

In this scenario the noise assessment should address:

- the sound power level of the different types of racing vehicles
- the number and type of events planned for the facility (e.g. drag racing, motocross, circuit racing, speedway or go-karts)
- the number and location of racing cars on the circuit and in any pit or warm up areas
- potential meteorological effects on noise propagation and impacts in the surrounding area (the *NSW Industrial Noise Policy* provides guidance on this aspect)

The noise assessment should also identify the configuration of vehicle numbers on the track with the potential to cause maximum noise impact. Noise modelling needs to be validated against noise measurements.

Council also asked that the noise assessment provide noise mitigation strategies for the facility as well as predicted noise level reductions. Council expected such an assessment would discuss the feasibility of the following noise mitigation and management options:

On-site noise mitigation

- Orient the track to use existing topography to reduce noise at noise sensitive receivers.
- Locate very noisy racing track types (e.g. drag racing) furthest from noise sensitive receivers and orient them to minimise noise.
- Use earth mounds and barriers.

Noise source controls

- Use effective mufflers on racing vehicles and require all vehicles to meet Confederation of Australian Motor Sport (CAMS) noise specifications.
- Implement a program for testing the noise of racing vehicles to ensure they meet racing association noise limits.

Operational noise controls

- Restrict times for practice and race days.
- Use respite periods during the racing schedule of an event.
- Limit of the number and type of events.

Receiver noise controls

In extreme situations and as a last resort, the council could consider noise controls at receiver locations such as:

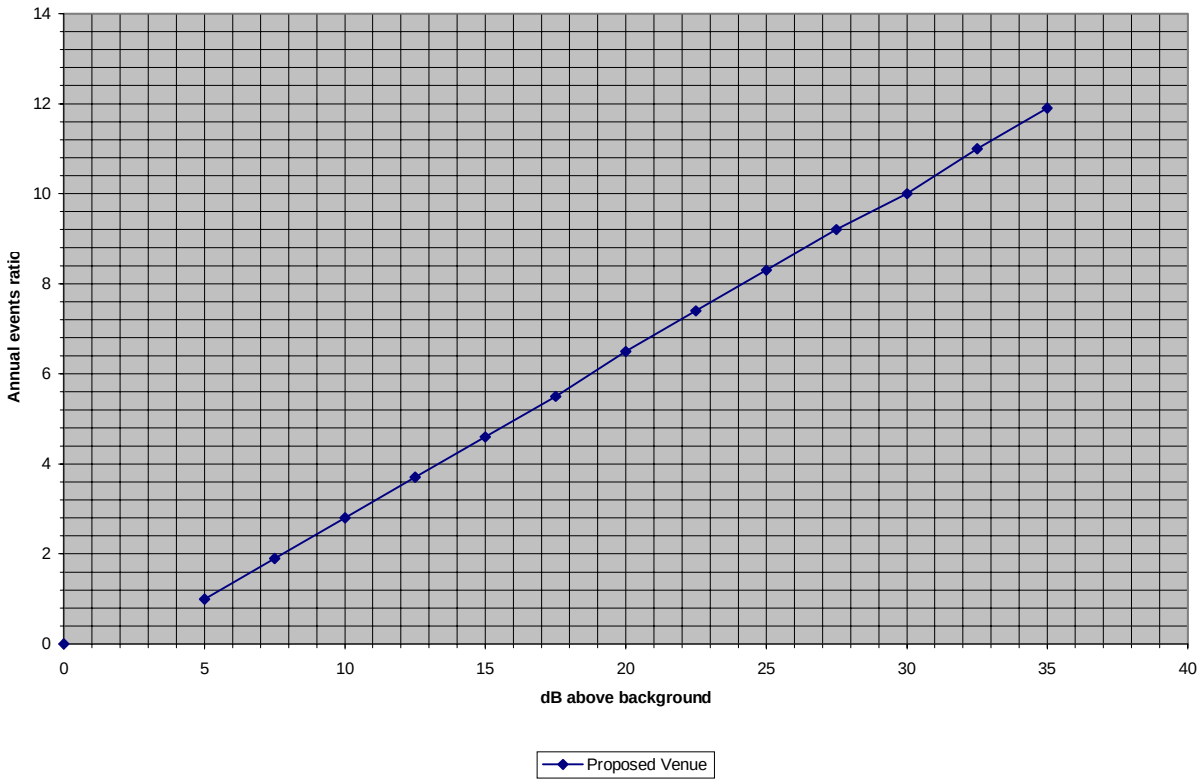
- noise insulation for nearby houses
- where noise impacts are totally unacceptable, and the facility continues to operate, the proponent offering to acquire nearby property.

Operational noise management plan

In addition to implementing many of the noise mitigation strategies mentioned above, council decided to ask the motor racing organisation to develop an ongoing noise management plan for events at the proposed facility. This noise management plan was included as a development consent condition, providing clear requirements for noise from the site and enabling council to regulate the operation of the facility. The noise management plan identified the number of events that would be allowed to occur at the facility, the noise monitoring program and the operator's complaint management system.

The event schedule for the motor racing facility was based on achieving a balance between how loud different racing events were likely to be and how often they occur. In this way council felt there was some control over the amount of noise residents would be exposed to.

DETERMINING ANNUAL EVENTS RATIO



Using this approach, council decided that the number of events that would be permitted in any 12-month period would be a maximum of 50 events with noise of background plus 5 dB. Where some events were likely to be noisier than this, then the number of events would reduce according to a ratio developed in the graph above. The graph allows for an event multiplication factor to be assigned where noise from the event will exceed background plus 5 dB(A). For example, an event that exceeded the background by 8 dB(A) would count as two events as the multiplication factor from the Table is 2.

Note: The number of events allowed for this new facility is less than the number that may be approved for an existing facility in the same location. This takes into account the higher level of reaction to a newly-introduced source of noise.

The proponent for the motor sport facility provided council with the following event schedule:

Event description	Exceeds background by up to	Proposed number of events x annual events ratio (from graph)	Equivalent number of events	Amended equivalent events	Final number of actual events
Super tourers	20 dB	3 x 6	18	18	3
Drag racing	30 dB	2 x 10	20	1 x 10	1
Vintage series	10 dB	3 x 3	9	9	3
250/500 cc motor cycles	18 dB	2 x 6	12	12	2
		Proposed events	59	49	
		Total equivalent events allowed	50	50	

The noise assessment report provided details of the expected noise levels from each type of racing event and how much the background noise level was likely to be exceeded. The noise impacts of drag racing in particular appeared to contribute a disproportionate amount to the 50 equivalent events allowed. Council suggested that the event schedule be amended to include one drag racing event each year instead of the two proposed. This meant that the whole event schedule would not exceed the maximum of 50 equivalent events over the year. The type and number of events were included in the noise management plan.

The assessment noted that most racing events were between 9am and 5pm, and up to ten late-night events up to 10pm would be held each year. These operating times were also included in the proponent's noise management plan.

Council decided that a condition of development consent would be:

> *That the type, timing and number of events would be as specified in the facility's Operational Noise Management Plan approved as part of the application, and that these could only be varied following agreement by council.*

This condition provided certainty to the operator and local community while allowing some flexibility.

For existing motor sport facilities, where council is the appropriate regulatory authority, the council may regulate the activity using a Noise Control Notice or a Prevention Notice which may limit times of operation, noise levels and the way the activity is carried out.

A similar approach, balancing noise level against noise exposure, can be taken for other event-based activities such as target shooting ranges and lawful sporting events at specific sites.

Appendix 1 'Modifying factor' adjustments

This Appendix is reproduced from Section 4 of the *NSW Industrial Noise Policy*.

4.1 Introduction

Where a noise source contains certain characteristics, such as tonality, impulsiveness, intermittency, irregularity or dominant low-frequency content, there is evidence to suggest that it can cause greater annoyance than other noise at the same noise level. On the other hand, some sources may cause less annoyance where only a single event occurs for a limited duration. This section outlines the correction factors to be applied to the source noise level at the receiver before comparison with the intrusiveness criteria to account for the additional annoyance caused by these modifying factors. The correction factors listed below were determined following a review of Australian and overseas practices and the relevant literature.

The modifying factor corrections should be applied having regard to:

- noise from all sources, individually and in combination, that contributes to the total noise at a site, and
- the nature of the noise source and its characteristics.

Table 4.1 sets out the corrections to be applied. The corrections specified for tonal, impulsive, intermittent and low-frequency noise are to be added to the measured or predicted noise levels at the receiver before comparison with the criteria.

Table 4.1 Modifying factor corrections

(See definitions in Appendix 1, Section 4.2)

Factor	Assessment/ measurement	When to apply	Correction[1]	Comments
Tonal noise	One-third octave or narrow band analysis	Level of one-third octave band exceeds the level of the adjacent bands on both sides by: **5 dB** or more if the centre frequency of the band containing the tone is above 400 Hz **8 dB** or more if the centre frequency of the band containing the tone is 160 to 400 Hz inclusive **15 dB** or more if the centre frequency of the band containing the tone is below 160 Hz.	5 dB[2]	Narrow-band frequency analysis may be required to precisely detect occurrence
Low frequency noise	Measurement of C-weighted and A-weighted level	Measure/assess C- and A-weighted levels over same time period. Correction to be applied if the difference between the two levels is 15 dB or more.	5 dB[2]	C-weighting is designed to be more responsive to low-frequency noise
Impulsive noise	A-weighted fast response and impulse response	If difference in A-weighted maximum noise levels between fast response and impulse response is greater than 2 dB	Apply difference in measured levels as the correction, up to a maximum of 5 dB.	Characterised by a short rise time of 35 milliseconds (ms) and decay time of 1.5 seconds
Intermittent noise	Subjectively assessed	Level varies by more than 5 dB	5 dB	Adjustment to be applied for **night time only**
Duration	Single-event noise duration may range from 1.5 min to 2.5 h	One event in any 24-hour period	0 to -20 dB(A)	The Acceptable noise level may be increased by an adjustment depending on duration of noise. (See Table 4.2)
Maximum adjustment	Refer to individual modifying factors	Where two or more modifying factors are indicated	Maximum correction of 10 dB(A)[2] (excluding duration correction)	

Notes:

1 Corrections to be added to the measured or predicted levels.

2 Where a source emits tonal and low-frequency noise, only one 5 dB correction should be applied if the tone is in the low-frequency range.

4.2 Definitions to support the modifying factor corrections

Tonal noise — containing a prominent frequency and characterised by a definite pitch.

Low-frequency noise — containing major components within the low frequency range (20 Hz–250 Hz) of the frequency spectrum.

Impulsive noise — having a high peak of short duration or a sequence of such peaks.

Intermittent noise — the level suddenly drops to that of the background noise several times during the assessment period, with a noticeable change in noise level of at least 5 dB.

Adjustment for duration — applied where a single-event noise is continuous for a period of less than 2½ hours in any 24-hour period. The acceptable noise level may be increased by the adjustment shown in Table 4.2. This adjustment is designed to account for unusual and one-off events, and does not apply to regular high-noise levels that occur more frequently than once per day.

Table 4.2 Adjustment for duration

Duration of noise (one event in any 24-hour period)	**Increase in acceptable noise level at receptor, dB(A)**	
	Daytime and evening (0700–2200 hrs)	**Night-time (2200–0700 hrs)**
1.0 to 2.5 hours	2	Nil
15 min to 1 hour	5	Nil
6 min to 15 min	7	2
1.5 min to 6 min	15	5
less than 1.5 min	20	10

Maximum adjustment — the maximum correction to be applied to the criteria or the measured level where two or more modifying factors are present. The maximum adjustment is 10 dB(A) where the noise contains two or more modifying factors (excluding the duration correction).

4.3 Applying the modifying factors

The modifying factors are to be applied to the noise from the source measured/predicted at the receiver and before comparison with the criteria. The modifying factor correction is applied as follows (K_i is equal to the modifying factor correction (from Table 4.1)):

Criterion	**Compare**	
	Measured or predicted	**Criterion value**
Intrusiveness	LAeq, 15 minute + Ki	Rating background level + 5
Amenity	LAeq, period + Ki	Acceptable noise level

Where two or more modifying factors are present, the maximum correction is limited to 10 dB.

Appendix 2 Technical notes

What is sound and noise?

Sound is the mechanical vibration of a gaseous, liquid or elastic medium through which energy is transferred away from the source by progressive sound waves. With respect to hearing it is simply fluctuations in air pressure detected by the ear. Noise is simply unwanted sound.

How do we measure sound?

We measure sound with a sound level meter, which consists of a microphone, an amplifier, electronic processing and a digital or analogue display. The microphone is like the ear in that it can detect fluctuation in air pressure (sound). Air or **sound pressure** is measured in pascals (Pa), however we express **sound pressure level** (SPL) in decibels (dB) which is a logarithmic scale used to compress the range of audible sound pressure. The relationship between sound pressure and sound pressure level is outlined below:

SPL (dB) = 20Log (μPa / μPa ref)

Where:

μPa = the actual sound pressure in micropascals

μPa ref = the reference sound pressure of 20 micropascals

What does 'A'-weighting mean?

Noise consists of various frequency components often referred to as octaves. When we use a single number to describe a sound pressure level each frequency is combined (logarithmically) to obtain a single number. When we say that a SPL is 'A'-weighted, i.e. dB(A), we have applied a correction factor to each octave frequency. When these frequencies are then combined we say that the overall level is 'A'-weighted. The 'A' weighting scale is extensively used to establish human dose response relationships to given sound pressure levels, i.e. the A-weighting scale simulates the response of the human ear. Nearly all electronic sound level meters display A-weighted sound pressure levels.

How do you add noise levels?

Sound pressure levels are expressed in decibels, which is a logarithmic scale. Therefore we cannot simply arithmetically add noise levels. For example, 35 dB plus 35 dB does not equal 70 dB.

To add two or more noise levels, if the difference between the highest and next highest noise level is:

0-1 dB, then add **3 dB** to the higher level to give the total noise level

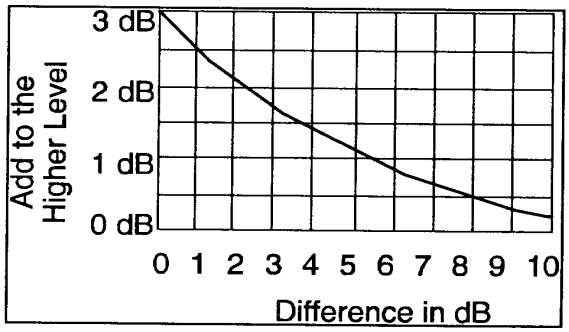
2-3 dB, then add **2 dB** to the higher level to give the total noise level

4-9 dB, then add **1 dB** to the higher level to give the total noise level

10 dB and over, then the noise level is **unchanged** (i.e. the higher level is the total level)

So, 35 dB plus 35 dB equals 38 dB.

Alternatively, values can be read from the following graph:



What is distance attenuation?

Distance attenuation is the reduction of sound pressure level as a function of distance. As a general rule the sound pressure level will decrease 6 dB with a doubling of distance from a point source in the free field. The following relationship can be used to quantify distance attenuation:

$SPL_2 = SPL_1 - 20 \log(d_2 / d_1)$ for a point source (e.g. an air conditioner unit)

$SPL_2 = SPL_1 - 10 \log(d_2 / d_1)$ for a line source (e.g. heavy traffic along a road)

Where:

SPL_2 = SPL at distance (2) from the source in metres (predicted)

SPL_1 = SPL at distance (1) from the source in metres (measured)

d_2 = distance in metres to location 2 from the source

d_1 = distance in metres to location 1 from the source

Methods of measuring the source when direct measurement is impractical:

Method 1 – Measure near the source where it dominates and extrapolate back to the desired measuring location:

- Take care not to measure too close to the source in the 'near field' (where the dimensions of the source are significant compared with the measuring distance to it). As a general rule, being at least the length of the longest dimension of the source away will be outside the near field.
- Consider barriers and ground type when extrapolating back as these may further attenuate the extrapolated noise level.
- This method works best when terrain between source and receiver is flat and clear because effects of topography on attenuation are much reduced.
- When extrapolating, check that the equation used is consistent with whether the source is a point or line source (e.g. a fan would be a point source, whereas a regularly trafficked roadway or conveyor system would be a line source).

Method 2 – Obtain the sound power of the source and apply a prediction model:

- Useful where terrain (including barriers) is complicated but can be modelled.
- Requires access to a model and expertise in applying it (suited for large developmental projects where acoustic expertise is available).

Appendix 3 Templates for notices

Following are examples of notices that could be used by an appropriate regulatory authority (ARA). The samples are designed for information purposes only, and do not constitute legal advice. It may be appropriate for an ARA to obtain legal advice on drafting notices that more closely reflect their particular circumstances.

The following examples are provided:

- Prevention Notice
- Noise Control Notice
- Compliance Cost Notice
- Noise Abatement Direction
- Warning under the POEO (Noise Control) Regulation 2000.

Prevention Notice *(example only)*

The actual text of a Prevention Notice needs to be individually worded to meet each regulatory authority's own requirements and circumstances. Regulatory authorities should seek their own legal advice on the appropriate wording.

[Insert regulatory authority's name or letterhead]

Direction to take preventive action
Section 96 Protection of the Environment Operations Act 1997

[Insert method of service.][1]

To: *[Insert: name of person or company to whom notice is being addressed*[2]

—ACN if notice is being addressed to a company[3]

—ARBN if relevant[4]

—if trading under a registered business name, 'trading as <business name>'

—full address for service of addressee of notice.[5]*]*

Date: *[Insert date notice issued.]*

Background

[Here, set out relevant background information that demonstrates that the preconditions for issuing the notice have been met, and why the notice needs to be issued.][6]

Direction to take preventive action

[Insert regulatory authority's name] directs *[name of person or company to whom notice is being addressed]* to take the following action:

[Here, set out details of the action required[7] *and the period*[8]*, if any, within which it must be taken.]*

This notice is issued under section 96 of the *Protection of the Environment Operations Act 1997* (POEO Act).

It is an offence against the POEO Act not to comply with this notice.

However, this notice does not begin to operate immediately, and you may appeal against the notice.

At the end of this notice there is information about when the notice begins to operate, the penalty for not complying with it, and how you can appeal against the notice.

Fee to be paid

You are required by law to pay a fee of $320[9] for the administrative costs of issuing this notice.

It is an offence not to pay this fee. However, you may apply for an extension of time to pay the fee, or for the fee to be waived. At the end of this notice there is information about how and when to pay the fee and how to apply for an extension or a waiver of the fee.

Signed *[Insert name of signatory*[10] *and position title and name of regulatory authority.]*

Information about this Prevention Notice

Penalty for not complying with this direction to take preventive action

The maximum penalty that a court may impose on a corporation for not complying is $250,000, with a further $120,000 for each day the offence continues. The maximum penalty that a court may impose on an individual for not complying is $120,000, with a further $60,000 for each day the offence continues.

Appeals against this notice

You may appeal to the Land and Environment Court against this notice. The deadline for lodging your appeal is 21 days after you were served with the notice.

When this notice begins to operate

This notice does not operate:

a) until the 21-day appeal period has expired without you lodging an appeal, and

b) if you do lodge an appeal, until the Land and Environment Court confirms the notice or you withdraw the appeal.

Deadline for paying fee

The fee must be paid by **no later than 30 days after the date of this notice, unless you are given an extension of time to pay the fee or the fee is waived** (see below). Also, if you appeal to a court against the notice, the fee does not have to be paid unless and until the court confirms the notice.

How to pay fee

[*Insert possible methods of payment*.][11]

How to apply for extension of time to pay or for waiver of fee

Any application should be made in writing to *[Insert regulatory authority's name]* and sent to *[Insert regulatory authority's postal address]*. The application should set out clearly why you think the application should be granted.

Other costs

The *Protection of the Environment Operations Act 1997* allows [*Insert regulatory authority's name*] to recover from you any reasonable costs and expenses it incurs in monitoring action taken under this notice, ensuring the notice is complied with, and associated matters. (If you are going to be required to pay these costs and expenses you will later be sent a separate notice about this.)

Notes for using this template

1 For example, 'personal delivery' or 'by fax'. See section 321 of the POEO Act for methods of service of notices, and note 5 below.

2 (a) The addressee must be either the occupier of premises at which the activity concerned is being carried on, or the person carrying on the activity. If a notice is issued to the occupier and the occupier is not the person carrying on the activity concerned, the occupier has a duty to take all available steps to cause the action specified in the notice to be taken.

(b) Notices may be given and addressed only to an individual, or an incorporated entity (for example, a company).

3 The ACN (Australian Company Number) is the unique nine-digit number assigned to a corporation when it is formed.

4 The ARBN (Australian Registered Body Number) is the unique number identifying a registered foreign company operating in Australia.

5 For example, if the addressee is a company, the address is its registered office. See sections 109X and 601CX Corporations Law Act for requirements about serving documents on a corporation.

6 The notice should state:

- that the authority issuing it is the appropriate regulatory authority in relation to the activity concerned
- whether the notice is being issued to the addressee because they are the occupier of premises at which the activity concerned is being carried on, or the person carrying on the activity
- the premises where the activity is being carried on; include the street address, if any, and, if possible, insert the Lot and Deposited Plan number/s or other folio identifier so that the land to which the notice relates is clearly identified
- how the activity concerned is being or has been carried on in an environmentally unsatisfactory manner (See section 96(1) of the POEO Act, which says when an activity is regarded as being carried on in such a manner)
- the reasonable grounds on which it is suspected that the activity concerned is being, or has been, carried on in an environmentally unsatisfactory manner
- if it is one of a series of notices that has been given in relation to the activity, details of the other relevant notices if appropriate.

7 See section 96(3) and (4) of the POEO Act for examples of the sort of preventive action that may be required. Be as specific as possible in describing what the addressee of the notice must do, and provide a clear and reasonable time frame within which it is to be done.

8 Note that a person has 21 days after being served with a Prevention Notice to appeal against the notice. The notice does not operate until the time for appealing has expired without an appeal being lodged, and, if an appeal is lodged, until the appeal has been finalised (POEO Act, s.99). Therefore the notice should not require action to be taken until, at the earliest, 21 days after it has been served.

9 This amount is prescribed by clause 61 of the Protection of the Environment Operations (General) Regulation 1998.

10 The signatory must have written delegated authority from the regulatory authority to issue a notice of this type.

11 For example, personal payment to the regulatory authority at its offices, or cheque payment by mail to the regulatory authority's postal address.

Noise Control Notice (example only)

The actual text of a Noise Control Notice needs to be individually worded to meet each regulatory authority's own requirements and circumstances. Regulatory authorities should seek their own legal advice on the appropriate wording.

[Insert regulatory authority's name or letterhead.]

Noise Control Notice
Section 264 Protection of the Environment Operations Act 1997

[Insert method of service.][1]

To: *[Insert: name of person or company to whom notice is being addressed*[2]

—ACN if notice is being addressed to a company[3]

—ARBN if relevant[4]

—if trading under a registered business name, 'trading as <business name>'

—full address for service of addressee of notice.][5]

Date: *[Insert date notice issued.]*

Background

[Here, set out relevant background information that demonstrates why the notice needs to be issued.][6]

Noise prohibition

[Insert regulatory authority's name] prohibits *[name of person or company to whom notice is being addressed]* from causing, permitting or allowing:

- [*Specify here the particular activity and/or the particular article the carrying on, use or operation of which is to be prohibited by the notice.*] [7]
- at [*Insert here the address of the premises concerned*][8] in such a manner as to cause the emission of noise from the premises
- during the times and/or days specified below

above the level specified below when measured at the point specified below.

Times and/or days of prohibition

[Specify here the times and/or days during which the prohibition applies.][9]

Maximum noise level

[Specify here the noise level that is not to be exceeded.][10]

Noise-measuring point

[Specify here the point at which the noise is to be measured.]

This notice is issued under section 264 of the *Protection of the Environment Operations Act 1997* (POEO Act).

It is offence against the POEO Act to contravene this notice, except as specified in section 265(2). (See the information at the end of this notice.)

Signed *[Insert name of signatory,*[11] *and position title and name of regulatory authority.]*

Information about this Noise Control Notice

Contraventions of this notice

It is an offence to contravene a Noise Control Notice. However, section 265(2) of the *Protection of the Environment Operations Act 1997* says that a person is not guilty of the offence unless it can be established that the emission of the noise from the premises concerned could have been heard outside the premises without the aid of an instrument, machine or device.

Penalty for contravening this notice

The maximum penalty that a court may impose on a corporation for contravening this notice is $60,000, with a further $6,000 for each day the offence continues. The maximum penalty that a court may impose on an individual for contravening this notice is $30,000, with a further $600 for each day the offence continues.

Appeals against this notice

You may appeal to the Land and Environment Court against this Noise Control Notice. The deadline for lodging appeals is 21 days (or 7 days if the notice relates to animal noise) after you were served with this notice.

When this notice begins to operate

This Noise Control Notice has no force:

a) until the 21-day appeal period (or 7-day appeal period if the notice relates to animal noise) has expired without you lodging an appeal and

b) if you do lodge an appeal, the Land and Environment Court confirms the notice or you withdraw the appeal.

Duration of noise prohibition

If this notice does not specify times or days during which the prohibition in the notice operates, the prohibition operates at all times.

Notes for using this template

1 For example, 'personal delivery' or 'by fax'. See section 321 of the POEO Act for methods of service of notices, and note 5 below.

2 a) The addressee must be either the person who is the occupier of the premises concerned, or the person who carries on an activity or who uses or operates an article at those premises.

b) Notices may be given and addressed only to an individual, or to an incorporated entity (for example, a company).

3 The ACN (Australian Company Number) is the unique nine-digit number assigned to a corporation when it is formed.

4 The ARBN (Australian Registered Body Number) is the unique number identifying a registered foreign company operating in Australia.

5 For example, if the addressee is a company, the address is its registered office. See sections 109X and 601CX *Corporations Law Act* for requirements about serving documents on a corporation.

6 The notice should state:

- that the authority issuing it is the appropriate regulatory authority in relation to the premises or the activity concerned
- the premises where the activity is being carried on; list the street address, if any, and, if possible, insert the Lot and Deposited Plan number/s or other folio identifier so that the land to which the notice relates is clearly identified
- what the activity or article to which the notice relates is

– whether the notice is being issued to the addressee because they are the occupier of the premises, or because they are carrying on the activity or using the article concerned on the premises

– if appropriate, details of other earlier relevant notices or directions (for example, any past noise control notices or abatement directions).

7 A Noise Control Notice may prohibit the carrying on of specified activities or the use or operation of specified articles, or both.

8 See note 6 above about specifying premises.

9 If the notice does not specify times and/or days during which the prohibition in the notice operates, the prohibition operates at all times. See section 264(3) of the POEO Act.

10 Describe noise levels specifically. The choice of an appropriate descriptor is determined by the type of impact to be controlled. This choice can be guided by current EPA policies on noise impacts. It is important for compliance purposes to ensure that the noise being measured is the noise source that is the subject of the notice, and that readings are not contaminated by other extraneous noise.

11 The signatory must have written delegated authority from the regulatory authority to issue a notice of this type.

Compliance Cost Notice (example only)

The actual text of a compliance cost notice needs to be individually worded to meet each regulatory authority's own requirements and circumstances. Regulatory authorities should seek their own legal advice on the appropriate wording.

[Insert regulatory authority's name or letterhead]

Notice requiring payment of reasonable costs and expenses
Section [*insert relevant subsection from section 104*][1] **Protection of the Environment Operations Act 1997**

[Insert method of service][2]

To: *[Insert: name of person or company to whom notice is being addressed[3]*

—ACN if notice is being addressed to a company[4]

—ARBN if relevant[5]

—if trading under a registered business name, 'trading as' <business name>

—full address for service of addressee of notice.[6]]

Date: *[Insert date notice issued.]*

Background

[Here, set out relevant background information that demonstrates that the preconditions for issuing the notice have been met, and why the notice needs to be issued.][7]

Requirement to pay reasonable costs and expenses

[Insert regulatory authority name] requires *[name of person or company to whom notice is being addressed]* to pay the following reasonable costs and expenses:

[Here set out details of the costs and expenses incurred by the authority.][8]

Payment should be made to *[Insert regulatory authority's name]* no later than *[Insert deadline for payment[9]]*. At the end of this notice there is information about how to make the payment.

This notice is issued under section *[Insert relevant subsection from section 104]*[10] of the *Protection of the Environment Operations Act 1997*.

Signed *[Insert name of signatory[11] and position title and name of regulatory authority.]*

Information about this notice

How to make the payment required by this notice

[Insert possible methods of payment[12]]

What you can do if you are not the polluter

If you comply with this Compliance Cost Notice but you are not the person who caused the pollution or pollution incident to which the notice relates, you have a right to go to court to recover your costs of complying with the notice from the person who caused the pollution or incident.

Non-compliance with this notice

If the unpaid costs and expenses that this notice requires you to pay have not been paid by the due date(s) specified in the notice, the *[Insert regulatory authority's name]* will consider taking legal action to recover the amount owing.

Notes for using this template

1 There are separate and different powers to issue Compliance Cost Notices in relation to Prevention Notices, in section 104(3) and (4) of the POEO Act. It is very important to make sure that the notice is being issued under the correct subsection. See also note 7 below.

2 For example, 'personal delivery' or 'by fax'. See section 321 of the POEO Act for methods of service of notices, and note 6 below.

3 (a) For a notice issued under section 104(3) or (4) of the POEO Act, the addressee must be the person to whom the related Clean-up, Prevention or Prohibition notice was issued.

(b) Notices may be given and addressed only to an individual, or an incorporated entity (for example, a company).

4 The ACN (Australian Company Number) is the unique nine-digit number assigned to a corporation when it is formed.

5 The ARBN (Australian Registered Body Number) is the unique number identifying a registered foreign company operating in Australia. A company will have either an ACN or an ARBN—it will not have both.

6 For example, if the addressee is a company, the address is its registered office. See sections 109X and 601CX *Corporations Act* for requirements about serving documents on a corporation.

7 A notice issued under section 104(3) of the POEO Act should state:

- that the regulatory authority has issued to the addressee a Prevention Notice
- the details of that Prevention Notice (for example, the date issued) and, if appropriate, details of other earlier relevant notices
- that the regulatory authority has incurred costs and expenses in connection with monitoring action under the notice, ensuring that it was complied with and associated matters, as the case may be.

A notice issued under section 104(4) of the POEO Act should state:

- that the addressee has been issued with a Prevention Notice
- the details of that previous notice (for example, the date issued) and, if appropriate, the details of other earlier relevant notices
- the details of the previous non-compliance and the action taken under section 98 of the POEO Act.

8 The notice should specify the amount of each cost or expense, the date on which the cost or expense was incurred, and the reason or purpose for which the cost or expense was incurred.

Keep all quotes, receipts and related documentation to enable you to prove that the amount incurred was fair and reasonable if this is disputed. For notices issued under section 104(4) of the POEO Act, the notice must show how the costs and expenses relate to monitoring action under the notice, ensuring that the notice is complied with, or other associated matters. Be as specific as possible in describing the costs and expenses incurred.

9 The Act does not specify any deadline for the payment, so general principles of reasonableness would apply when setting this deadline.

10 Specify whether the notice is issued under section 104(3) or (4) of the POEO Act, as appropriate. Note that the EPA cannot issue a notice under section 104(3).

11 The signatory must have written delegated authority from the regulatory authority to issue a notice of this type.

12 For example, personal payment to the regulatory authority at its offices, or cheque payment by mail to the regulatory authority's postal address.

13 Section 105(1) of the POEO Act enables a regulatory authority or public authority to recover any unpaid amounts. These debts would usually be recovered through a Local Court; seek legal advice about this.

Noise Abatement Direction (example only)

The actual text of a Noise Abatement Direction needs to be individually worded to meet each regulatory authority's own requirements and circumstances. Regulatory authorities should seek their own legal advice on the appropriate wording. **Written directions are not required—noise abatement directions can be issued verbally or in writing.**

[*Insert regulatory authority's name or letterhead*]

Noise Abatement Direction
Section 276 Protection of the Environment Operations Act 1997

To: *[Insert: name of person or company to whom notice is being addressed*

—ACN if notice is being addressed to a company

—ARBN if relevant

—if trading under a registered business name, 'trading as' <business name>

—full address for addressee of direction.]

Date: *[insert date direction issued]*

Background:

[Set out relevant background information that demonstrates why the direction needs to be issued.]

Noise abatement direction

[Insert authorised person's name], authorised person of *[insert regulatory authority's name]* directs *[name of person or company to whom the direction is being addressed]* to cease causing the emission of offensive noise, or making or contributing to the making of the offensive noise being emitted, from the premises at *[insert address of premises]* ('the premises') by *[specify source e.g. pneumatic drill]* or any other source which is contributing to the offensive noise being emitted from the premises.

For the meaning of 'offensive noise', see the information at the end of this direction.

This direction does not prevent the emission of noise that is not offensive noise.

This direction is issued under section 276 of the *Protection of the Environment Operations Act 1997*.

Expiry

This direction remains in force until [*insert expiry date and time. Note that maximum period is 28 days from the date of issue*.]

Offence

It is an offence against section 277 of the *Protection of The Environment Operations Act 1997* to fail to comply promptly with this direction and to continue to fail to comply with this direction while it is in force, unless you have a reasonable excuse.

Signed *[insert name of authorised officer]*, authorised officer of *[insert name of regulatory authority]*.

Information about this direction

Meaning of 'offensive noise'

'Offensive noise' is defined in the *Protection of the Environment Operations Act 1997* as meaning noise:

a) that, by reason of its level, nature, character or quality, or the time at which it is made, or any other circumstances:

   i) is harmful to (or is likely to be harmful to) a person who is outside the premises from which it is emitted, or

   ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted, or

b) that is of a level, nature, character or quality prescribed by the regulations or that is made at a time, or in other circumstances, prescribed by the regulations.

Penalty for contravening this direction

The maximum penalty that a court may impose on a person (including a corporation) for contravening this direction is $3,300.

Noise Warning (example only)

The actual text of the Noise Warning needs to be individually worded to meet each regulatory authority's own requirements and circumstances. Regulatory authorities should seek their own legal advice on the appropriate wording. **Written warnings are not required—noise warning can be issued verbally or in writing.**

Noise Warning
Protection of the Environment Operations (Noise Control) Regulation 2000

Name: [*Insert full name of person or company to whom the warning is addressed*]

Of: [*Insert full address of person or company to whom warning is being issued*]

Date of issue: [*Insert the date on which the warning is being issued*]

Place of issue: [*Insert the address of the location where the warning is issued*]

Issued by: [*Insert full name of person who is issuing the warning*]

This warning is given for the purposes of the Protection of the Environment Operations (Noise Control) Regulation 2000.

Clause 15 — Use of motor vehicles on residential premises*

Clause 16 — Use of refrigeration units fitted to motor vehicles*

Clause 32 — Use of sound systems on vessels*

Clause 50 — Power tools and equipment*

Clause 51 — Musical instruments and sound equipment*

Clause 52 — Air conditioners*

(**strike out clauses not applicable)*

A person must not cause or permit *[Insert text of clause 15(1), 16(1), 32(1), 51(1), 52(1), as applicable, excluding the maximum penalty information.]*

[Where the alleged contravention is against clause 15, add in the words 'This requirement does not apply to noise emitted from the motor vehicle while it is entering or leaving the premises.']

It is an offence against clause *[insert clause number]* of the Protection of the Environment Operations (Noise Control) Regulation 2000 if you cause or permit the *[insert type of equipment e.g. swimming pool pump]* to be used in that manner within 28 days after this warning was given to you.

The maximum penalty that a court may impose on a corporation for committing this offence is $11,000. The maximum penalty that a court may impose on an individual for committing this offence is $5,500.

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