



Tasmania

DEPARTMENT of  
PRIMARY INDUSTRIES,  
WATER *and* ENVIRONMENT

***ENVIRONMENTAL MANAGEMENT AND  
POLLUTION CONTROL (MISCELLANEOUS  
NOISE) REGULATIONS 2004***

**PROPOSED REGULATIONS  
and  
REGULATORY IMPACT STATEMENT**

**January 2004**

**Environment Division  
Department of Primary Industries, Water and Environment  
GPO Box 44, Hobart Tas 7001**

## SUBMISSIONS

Submissions are invited in relation to any aspect of these documents and the accompanying draft Noise Measurement Procedures Manual. Comment is especially invited on the potential costs and benefits of the proposed Regulations for particular industries and other sectors of the community.

Submissions will be considered before the Regulations are made, and copies will be provided to the Subordinate Legislation Committee of the Tasmanian Parliament. Submissions must be in writing and forwarded to:

The Secretary  
Department of Primary Industries, Water and Environment  
GPO Box 44  
Hobart, Tas 7001

Submissions may also be hand delivered at 6<sup>th</sup> floor, 134 Macquarie Street, Hobart.

Submissions must be received by **5.00 p.m., Friday 13 February 2004.**

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# **REGULATORY IMPACT STATEMENT**

**for the**

## ***ENVIRONMENTAL MANAGEMENT AND POLLUTION CONTROL (MISCELLANEOUS NOISE) REGULATIONS 2004***

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## 1. INTRODUCTION

### 1.1 The purpose of this document

This purpose of this regulatory impact statement (RIS) is to explain the proposed *Environmental Management and Pollution Control (Miscellaneous Noise) Regulations 2004* (referred to as the ‘proposed Regulations’) and describe their likely impact on various sectors. A copy of the proposed Regulations accompanies this RIS. A copy of the Noise Measurement Procedures Manual, a document which will be issued under the auspices of the proposed Regulations, is also provided for comment.

### 1.2 Background to the proposed Regulations

The proposed Regulations will replace the former *Environment Protection (Noise) Regulations 1977* (referred to as the ‘1977 Regulations’) and will be similar in scope. The 1977 Regulations contained provisions on ‘neighbourhood’ noise sources such as off-road vehicles, lawn mowers, power tools and heat pumps. The Regulations were generally implemented by local government and Tasmania Police.

It was originally intended that the 1977 Regulations be replaced by a section of the proposed Environment Protection Policy (EPP) on Noise. The 1977 Regulations were reviewed during the development of the Draft EPP and were included as Part 7 of the Draft EPP. The Draft EPP was released for public comment in January 2003 and is currently being assessed by the Environment Protection Policy Review Panel.

The 1977 Regulations were automatically rescinded on 1 January 2004. Their life was extended three times from the sunset date specified in the *Subordinate Legislation Act 1992*, and further extension was not a preferred option. As the EPP was unlikely to be finalised and in operation by January 2004, a decision was taken by the Department of Primary Industries, Water and Environment (DPIWE) to develop the proposed Regulations. Promulgation of the Regulations early in 2004 will ensure that councils and Police continue to have a statutory instrument relating to neighbourhood noise control to enable them to effectively discharge their noise control functions. The proposed Regulations will be made under section 102 of the *Environmental Management and Pollution Control Act 1994* (EMPCA).

The provisions of the proposed Regulations are substantially the same as those of the 1977 Regulations, although some minor changes have been made to update the Regulations and improve their operation. The proposed Regulations *do not* include the more significant new provisions incorporated in Part 7 of the Draft EPP.

The Environment Protection Policy Review Panel will assess Part 7 of the Draft EPP and report on it to the Minister for Primary Industries, Water and Environment as part of the report on the Draft EPP as a whole. The Minister will consider at that time amending the Regulations to give effect to the Panel’s recommendations and removing Part 7 of the EPP before it is made. Alternatively the Regulations may be rescinded in which case Part 7 would remain in the EPP.

### 1.3 Scope of the proposed Regulations

The proposed Regulations deal with neighbourhood noise, the type of noise pollution which generally affects residential and other noise sensitive premises and which originates locally from relatively minor sources. The proposed Regulations do not address noise from major activities such as industry, commerce and infrastructure (except to the extent that the articles covered by the Regulations may be operated in the course of such activities). It is intended that major activities will be covered by the proposed EPP.

The proposed Regulations do not cover several significant noise sources such as barking dogs, aircraft and on-road motor vehicles, which some people may regard as neighbourhood sources. Noise from these sources is controlled through other legislation and regulatory frameworks. Inclusion of provisions on these sources in the Regulations would create needless duplication, and in the case of aircraft the provisions may be unenforceable as they may conflict with Commonwealth legislation.

The Regulations include the following types of provisions:

- noise limits, measured at specified distances and in accordance with the Noise Measurement Procedures Manual;
- permissible hours of operation;
- separation distances from affected premises; and
- offence, penalty and machinery provisions.

Notable changes to provisions in the 1977 Regulations are as follows. The reasons for these changes are described elsewhere in this RIS. Other changes have been made to correct minor errors, to improve readability, to improve administration of provisions, and for legal reasons.

- The *Code of Practice for Sound Pressure Level Measurement* has been replaced by the *Noise Measurement Procedures Manual*. The Regulations allow for departures from the Manual to be authorised or required by the Director.
- Noise limits for conventional off-street vehicles have been updated.
- Point-of-sale provisions, i.e. type approval and supply provisions, have been removed.
- Grandfather<sup>1</sup> provisions for older equipment have been removed in some instances.

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<sup>1</sup> A grandfather provision is one which provides an exemption or a less stringent standard for existing activities or older plant, vehicles, etc.

#### **1.4 Statutory requirement for a regulatory impact statement**

The *Subordinate Legislation Act 1992* requires any additional regulation in the Tasmanian community to yield a net benefit to the community. The Act requires a RIS to be prepared for most new subordinate legislation to demonstrate that it is necessary, that it yields a net benefit to the community and that it is effective and efficient. It requires an analysis of alternative regulatory options, costs and benefits and impacts on competition. The 1977 Regulations have not previously been subject to regulatory impact assessment, and the *Subordinate Legislation Act 1992* requires that any replacement instrument be assessed.

The first few sections of this RIS deal with general aspects of the proposed Regulations and alternatives to them. Further sections provide an explanation of individual provisions, their costs, benefits and competition impact, and alternatives.

#### **1.5 Consultation**

This consultation includes advertisements in daily newspapers and a *Gazette* notice as required by section 5(2)(a) of the *Subordinate Legislation Act 1992*, and a direct mailing to key stakeholders to fulfil the requirements of section 5(2)(b). All comments and submissions received will be appropriately considered in accordance with section 5(2)(c).

#### **1.6 Assessment of costs and benefits**

It is not feasible for DPIWE to quantify costs and benefits for most provisions of the proposed Regulations. Discussion of costs and benefits in this RIS is therefore mostly qualitative, and justification of preferred options is in turn qualitative.

Comment is invited on the potential costs and benefits of the proposed Regulations for particular industries and other sectors of the community. Quantified data is especially sought.

It should be noted that the provisions of the proposed Regulations are essentially the same as equivalent provisions in the 1977 Regulations, and costs and benefits associated with those provisions will not change significantly.

## **2. REASONS FOR THE PROPOSED REGULATIONS**

### **2.1 Noise and the environment**

Noise is a significant environmental issue. While residents and visitors are able to find peace and solitude in many parts of Tasmania, there is evidence that the noise environment is less than satisfactory in other parts. Around half of the 4,000 public environmental complaints received annually by councils and the State government relate to noise<sup>2</sup>.

Whilst it may not have the direct and serious consequences for human health of other types of pollution, there is some evidence that noise may have adverse health and social effects<sup>3,4</sup>. Noise, such as neighbours' loud music, may even force people to move house. Even where the effects are not as dramatic, noise can unreasonably interfere with enjoyment of the environment. There is a prima facie case for government intervention to address at least some aspects of the noise problem. Section 3 of this RIS outlines the noise problem in more detail.

There are numerous sources of noise which may cause nuisance, ranging from a neighbour's lawn mower to a large industrial facility, so the degree and type of government intervention required to remedy noise problems may vary. Section 4 describes alternatives to the proposed Regulations.

### **2.2 Particular reasons for the proposed Regulations**

As stated in section 1.2, the 1977 Regulations were automatically rescinded on 1 January 2004. Local councils and Tasmania Police, the major users of these Regulations, will be seriously hampered in carrying out their noise control responsibilities unless the Regulations are replaced as soon as possible.

The State government's Legislation Review Program has conducted a review of the 1977 Regulations. The Program's report made recommendations on the Regulations which require implementation. The report considered that, in view of the impacts on business or competition, the present restrictions on the operation of specified apparatus and vehicles may be warranted but that controls on the sale of apparatus and vehicles (type approval and supply provisions) should be discontinued.

There are more general reasons for reviewing noise legislation. The World Health Organisation (WHO) has published a report on community noise which expresses concern at the deteriorating noise environment in many countries and urges

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<sup>2</sup> *Development of a Noise Policy for Tasmania: A Public Discussion Paper and Proposal for An Environment Protection Policy December 2000*; Department of Primary Industries, Water and Environment, Hobart, 2000.

<sup>3</sup> *Guidelines for Community Noise*; ed. B. Berglund, T. Lindvall & D. H. Schwela, World Health Organisation, Geneva, 1999 (downloaded from WHO website <http://www.who.int/peh/noise/noiseindex.html> 28 September 2000).

<sup>4</sup> *The Non-Auditory Health Effects of Noise: Report prepared for EnHealth July 2001*; draft prepared by Carroll Health and Environmental Services for Commonwealth Department of Health and Aged Care through NSW Health Department.

governments to take action<sup>5</sup>. A broader review is taking place in the context of developing the Environment Protection Policy (Noise).

Australia has no national regulatory framework for noise control, and national regulations and guidelines cover only a few aspects of the noise environment. In the absence of national provisions the responsibility falls on individual States and Territories to develop standards and regulations where appropriate. The matters covered by the proposed Regulations are not covered by any Commonwealth or national instrument.

### 2.3 Policy objectives

The chief policy objective for the proposed Regulations is to achieve, in conjunction with other legislation, the objectives of EMPCA in relation to Tasmania's acoustic environment (the objectives of EMPCA are set out in Schedule 2 of EMPCA). Particular objectives are as follows.

- To minimise unreasonable interference from noise with human enjoyment of the environment.
- To protect human health in respect of noise impacts, except in relation to health in workplaces<sup>6</sup>.
- To ensure the use of accepted modern technology (AMT)<sup>7</sup> in relation to the noise sources covered by the proposed Regulations.

The objective of ensuring the use of AMT may not actually be fulfilled by the proposed Regulations at this point of time. In view of the impending assessment of Part 7 of the Draft EPP by the EPP Review Panel, it was considered inappropriate to make changes at this point of time to the noise limits specified in the Regulations (the noise limits should reflect AMT). As indicated in section 1.2, the Review Panel may recommend changes in its report.

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<sup>5</sup> See footnote 3.

<sup>6</sup> In respect of workplaces, the *Workplace Health and Safety Act 1995* and the *Workplace Health and Safety Regulations 1998* should be consulted in order to understand obligations and requirements relating to workplace noise. The proposed Regulations will apply to articles covered by the Regulations when used in workplaces, but the objective of this is to prevent unacceptable noise impacts outside of the workplace.

<sup>7</sup> "Accepted modern technology" is defined as technology which has a demonstrated capacity to achieve the relevant specified emission level, or to limit emissions to the lowest practicable level where no emission level is directly specified, in a cost-effective manner.

### **3. ASSESSMENT OF THE NATURE AND EXTENT OF THE PROBLEM**

#### **3.1 Impediments to acoustic environmental quality**

Tasmania, with its relatively small population, sparse major industrial facilities and low traffic levels, has the potential for excellent acoustic environmental quality in terms of ambient noise level. Nonetheless, noise levels of particular sources may be a substantial margin above the background level because of the prevalent low background levels, a very difficult problem to overcome in some situations. Environmental noise surveys are not presently carried out, so there is no certainty regarding the impediments to achieving excellent environmental quality, nor can the noise problem be readily quantified.

Public complaints about noise to the relevant authorities are an indicator of where problems lie. This is because an unsatisfactory acoustic environment often results in annoyance, and annoyance leads to complaints. Based on the results of a survey of public complaints carried out for the first phase of consultation on the proposed EPP<sup>8</sup>, the main impediments to a satisfactory acoustic environment are excessive noise from (in order of significance):

- domestic dogs;
- other domestic sources (parties, workshops, heat pumps, etc);
- secondary industry; and
- motor vehicles/traffic.

A wide range of other sources give rise to public complaints, to a lower degree. Among the more significant are building construction, chainsaws and security alarms.

It is notable that neighbourhood noise sources are very significant in terms of public complaints. The 1977 Regulations dealt with many of the sources which give rise to complaints, and the proposed Regulations will continue this. Further comment on the scope of the proposed Regulations may be found in section 1.3.

#### **3.2 Non-auditory health effects**

International research now suggests that community noise may pose a general public health risk. Population groups most exposed to noise (by virtue of where they live, work and recreate) and those most sensitive to its impacts may face even greater risks. These groups include infants and the young, shift workers, the elderly, the blind, and those suffering hearing impairment, sleep disorders and other physical and mental health conditions. Potential non-auditory health impacts are summarised below<sup>9</sup>.

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<sup>8</sup> See footnote 2.

<sup>9</sup> The information in this section is drawn from the reference in footnote 4. Refer to that reference for original sources of information.

*Speech impairment* Background noise containing sound energies at frequencies similar to those of the spoken voice may mask speech at these and resonant frequencies depending on the characteristics of the noise and location. The inability to understand speech under normal conditions is a social handicap that can result in social isolation and withdrawal. Stress reactions as well as difficulties with concentration, fatigue, lack of self-confidence and decreased working capacity, miscommunication and irritation have been reported. Increasing environmental noise will significantly hamper persons with hearing impairments in their ability to interact with the rest of society.

*Sleep disturbance* Noise may interfere with sleep in a number of ways:

- causing the sleeper to awaken repeatedly, resulting in poor sleep quality as well as other impacts;
- causing sleep to change from heavier to lighter sleep;
- reducing the percentage and total time in rapid eye movement (REM) sleep;
- increasing body movement;
- changed cardiovascular responses; and
- affecting mood and reducing performance the following day.

*Annoyance* In guidelines on environmental noise published in 1980, WHO defined annoyance as “a feeling of displeasure evoked by a noise”. Research has shown that people have widely varying reactions to noise. Individual reactions depend on the characteristics of the noise, the noise source and the individual’s attitude to the noise and source. In many instances the individual’s reaction is linked with individual beliefs about the effects the noise may have on them as well as other concerns relating to the source such as safety and air pollution. General characteristics of noise which have been found to generate a higher level of annoyance are increasing intensity, higher frequencies and intermittent, irregular, tonal, pulsing or rhythmic noise.

*Performance and learning* Unexpected noise can distract from social or auditory cues that are important in the workplace and other settings. Studies on school children exposed to excessive noise have shown impacts on memory, reading, motivation, language and speech, annoyance and psychological quality of life. In occupationally exposed populations, tasks requiring auditory signals may be masked or interfered with by noise and this may affect performance. The situation is less clear in regard to non-auditory tasks.

*Hypertension and ischaemic heart disease* Noise, acting as a stressor, is thought to have an impact on the cardiovascular system through certain stress response mechanisms such as the release of cortisol, adrenalin and noradrenalin which have cascade effects including raising blood pressure and increasing vasoconstriction. Studies of people in occupationally exposed situations have demonstrated there is epidemiological evidence to say that sustained exposures to excessive noise over 5 to 30 years has an impact on the cardiovascular system. The evidence from research on the effects of environmental noise on cardiovascular parameters is not yet conclusive. Some studies have indicated a link between noise and hypertension (increased blood pressure), but the results are not conclusive. There seems to be

greater evidence of ischaemic heart disease risk among those exposed to excessive noise levels.

*Other health effects* It appears there is a close relationship between noise sensitivity and the propensity to develop or suffer from psychiatric symptoms, however the relationship between noise exposure and mental health remains unclear. Some research suggests sensitivity to noise and annoyance from noise appears to be related to certain types of mental disorder such as depression. Noise as a stressor may produce a range of effects in addition to the cardiovascular effects mentioned above. It has been reported that sudden or impulsive noise bursts result in stress reactions that included changes in cardiovascular blood pressure and volume, breathing, pulse rate, gastrointestinal motility, endocrine gland excretions and neural activity changes. Psychological effects that have been reported include fear, depression, frustration, irritation, anger, helplessness, sorrow and disappointment. Behavioural examples include aggression, social isolation and substance abuse. Exposure to infrasound or low frequency sound has been found to elicit stress reactions and in some instances resonance responses in vocal cords and internal organs, however additional research is required.

## **4. ALTERNATIVES TO THE PROPOSED REGULATIONS**

### **4.1 Rely on the general provisions of primary legislation**

If the 1977 Regulations are not replaced by another instrument with specific provisions for neighbourhood noise sources, the general provisions of primary legislation could be relied upon to address neighbourhood noise issues on a case-by-case basis. These include the general provisions of EMPCA, in particular section 53 (environmental nuisance offences) and section 44 (environment protection notices). The nuisance provisions of the *Local Government Act 1993* may also be utilised by councils. Noise control conditions relating to specific activities may be included in permits issued under the *Land Use Planning and Approvals Act 1993*. Other approval instruments such as place of assembly licenses and liquor licenses and permits may include noise control conditions.

For sources which have a small potential for nuisance, special regulatory provisions are unnecessary and the general provisions of EMPCA and other legislation should suffice to address occasional problems. Where no nuisance exists then general provisions can remain unutilised, an appropriate response where there is no benefit in government intervention.

For those sources which have significant potential for nuisance, some government intervention beyond primary legislation is necessary to minimise nuisance. A case-by-case approach using the general provisions of EMPCA or other legislation would be administratively and technically inefficient for neighbourhood noise sources, given the very large number of such sources. Appropriate criteria would need to be established and implemented in each and every case. Guidelines could be issued, but it is unlikely that they would be applied consistently by the various councils and the Police. This would result in inequities and inconsistent protection of the acoustic environment.

### **4.2 Provide a more powerful general nuisance provision**

It has been proposed in the course of previous consultation that EMPCA be amended to provide a more powerful general nuisance provision. This would be aimed at providing authorised officers and council officers with greater individual discretion to deem a noise to be an environmental nuisance and take appropriate action. The opinion of an authorised officer or council officer could be deemed sufficient evidence to secure a prosecution, seize items or issue notices.

The advantages of this approach would be negation of the need to take noise measurements in some instances, simplification of procedure where there is doubt about the reasonableness of a complaint and simplification of noise control generally. The greater administrative efficiency may provide significant cost savings.

The main disadvantage of a more powerful general nuisance provision is that it could reduce accountability. It may not be acceptable to many people for an authorised officer or council officer to wield this degree of power, at least not without effective appeal processes (which may reduce or negate the gains in administrative efficiency).

At the very least, authorised officers and council officers would require a greater degree of training in noise assessment, conflict resolution and other matters than they presently receive. It is also likely that inconsistencies and inequities would result.

### **4.3 Self regulation**

Self-regulation is an approach whereby businesses and individuals are given a degree of freedom to determine the means by which they will meet established standards. Because of this freedom, persons may face increased penalties for breaches of generally applicable standards which are specified in legislation. Self-regulation allows for reduced inspections by regulators, with resources being redirected to prosecutions and policy development.

To promote satisfactory environmental performance, businesses may be required to acquire certification to ISO14001 or equivalent quality assurance standards for environmental management systems. Self-regulation will sometimes be supported and steered by government through the provision of guidelines, public education and information and financial incentives.

A variant of self-regulation is co-regulation, whereby there is formal provision for cooperative decision making between regulatory authorities and businesses or individuals on environmental standards or case-specific requirements.

The advantages of self-regulation include greater freedom of action by businesses and individuals, greater internalisation of costs by polluters, and potential reductions in costs to government. The disadvantages include greater uncertainty, greater likelihood of litigation, substantial expense for quality assurance certification (a particular burden on small business and individuals) and reduction of the regulatory authority role to a strictly reactive one (potentially allowing serious environmental harm or nuisance to occur as a result of negligence or cost cutting).

Self-regulation would not seem to be a practical option for the control of neighbourhood noise sources, because of the very large number of sources and the high probability of breaches occurring, and because of the incapacity of many operators to adequately self-regulate.

### **4.4 Economic mechanisms**

There is a recent trend to structure environmental regulation so as to provide economic incentives to polluters to reduce pollution, to allocate pollution abatement resources more efficiently and to properly reflect the 'polluter pays' principle. The two main instruments for achieving this are emission charges and tradeable emission permits.

Emission charges place a tax on each unit of pollution or on each unit produced above a certain threshold, to provide an incentive to reduce the total amount of pollution in a cost-effective manner.

Tradeable emission permits attempt to create a market by establishing and enforcing pollution property rights through a permit quota system. A regulatory authority

determines the aggregate emission level and issues permits which will achieve the desired aggregate level. Ownership of permits allows an industrial operator to emit pollution to the extent of the permits held. Expansion necessitates the purchase of additional permits or implementation of better pollution control, and surplus permits may be sold.

The advantages of economic mechanisms are:

- they are self-regulatory to a degree, allowing polluters to determine the type and extent of pollution control in a cost-efficient manner;
- they allow the regulator to manipulate the level of pollution by changing the emission charges or the aggregate emission levels; and
- there can be a strong incentive for polluters to take advantage of the latest available abatement technology or to develop their own.

The disadvantages of economic mechanisms, generally speaking, are:

- potential for emission charges to be set too low, with polluters preferring to pay the charge rather than control the pollution;
- potential for emission charges to be set too high, with polluters being forced to reduce production because of the high marginal cost of production or in extreme cases to cease production;
- complexity of planning and implementation;
- the need for high level, costly, detailed and difficult to obtain information on pollution sources and ambient pollution levels (regulatory costs are usually much higher than for conventional regulation); and
- the tendency for point source emissions to be concentrated among a few sources, particularly major industries, causing localised pollution problems;
- in the case of tradeable permits, the necessity for a viable market.

As far as can be determined, pollution taxes and tradeable permit schemes have been used exclusively for the reduction of air and water pollution and nowhere have they been applied to the reduction of noise pollution (with the exception of an aircraft noise emission charge scheme at British airports).

It is doubtful that it would be feasible to apply economic mechanisms to the control of noise in Tasmania at present. Because of the highly variable nature of noise emissions and transmission, continuous or frequent monitoring of sources and averaging in accordance with specified formulas would be necessary. A large amount of research would be required to determine the relative contributions of the various sources. This may be an expensive, lengthy and ground-breaking exercise, with no guarantee of success.

This approach is particularly inappropriate for the minor neighbourhood sources which are the subject of the proposed Regulations, operated as they are by a very large number of private households and small businesses. Localised noise pollution would be particularly severe in some situations, and the cost of taxes or permits may have unacceptable social or economic consequences. Administration costs for regulatory authorities would be extremely high, given the very large number of

sources that would need to be registered and monitored and the relative difficulty of gaining access to them.

#### **4.5 Conclusion**

On the basis of the discussion above, it is recommended that continued provision be made for specific, mandatory and directly enforceable standards. The two statutory options are Regulations made under section 102 of EMPCA and regulatory provisions in an EPP, either of which would serve to meet the policy objectives.

In view of the timeframe for development of the EPP (Noise), it is concluded that a set of Regulations made under section 102 of EMPCA is the best option. Refer to section 1.2 for a discussion of the relationship between the proposed Regulations and the EPP (Noise).

## **5. IMPLEMENTATION OF THE REGULATIONS**

The provisions of the Regulations will be implemented and enforced in accordance with responsibilities generally defined in EMPCA. EMPCA requires councils to use their ‘best endeavours’ to prevent or control pollution in relation to activities which are not level 2 or level 3 activities as defined by EMPCA. The neighbourhood noise sources covered by the proposed Regulations are generally not associated with level 2 or level 3 activities, so local government will be primarily responsible for their implementation, as was the case with the 1977 Regulations. Some doubt has existed about the power of council officers to enforce provisions relating to motor vessels, but recent legal advice indicates that they have such power under EMPCA.

Tasmania Police have played a role in implementing the 1977 Regulations outside of normal business hours, providing a first response to complaints and investigating and enforcing particular provisions such as those for recreational vehicles. Police officers are authorised officers under EMPCA. This practice is expected to continue under the proposed Regulations.

DPIWE has provided technical assistance to councils in some cases where enforcement of noise limit provisions has been necessary.

## 6. INDIVIDUAL PROVISIONS WITH MINOR CHANGES

### 6.1 Explanation of minor changes

The provisions in the proposed Regulations are essentially the same as those in the 1977 Regulations. Table 1 summarises the provisions transferred from the 1977 Regulations and explains minor changes to them (changes which are not expected to have a significant adverse impact on any sector). It should be noted that the order of regulations has been changed somewhat, to improve ease of use.

As the provisions listed in Table 1 have been in force through the 1977 Regulations, in most cases for many years, costs and benefits associated with implementing them are not expected to change.

Table 1 – Provisions transferred from the 1977 Regulations

<b>Proposed Regulation No.</b>	<b>Subject</b>	<b>1977 Regulation No.</b>	<b>Changes and <i>explanation</i></b>
3	Interpretation	3	<ul style="list-style-type: none"> <li>• Some definitions have been amended, deleted and added. <i>To support minor changes made to other provisions, or for clarification.</i></li> <li>• Provision on Australian Standards added. <i>This type of provision is typically included in other legislation and ensures that the most recent edition of a Standard is used where the edition is not specified.</i></li> <li>• Sub-regulations (3) and (4) removed. <i>Sub-regulation (3) is incorporated in regulation 23 of the proposed Regulations. Sub-regulation (4) is an obsolete legal requirement.</i></li> </ul>
4	Use of vehicles or vessels for sport or recreation in off-street areas – prohibition on operation within 500m of domestic premises	8	Exclusion for motor vessels not planing inserted. <i>Existing provision applies onerously to slow-moving speedboats and jet-skis and to fishing dinghies, yachts and the like. Noise nuisance is unlikely below planing speed.</i>
5	Permits for operation of individual off-street vehicles within 500m of domestic premises	8B	<ul style="list-style-type: none"> <li>• Provision for Director to include conditions in a permit or to refuse to grant a permit inserted. <i>To clear up doubt about the administration of the permit system.</i></li> <li>• Fee of \$100 changed to 100 fee units. <i>To enable easier revision of the fee through omnibus legislation.</i></li> </ul>

6	Vehicles or vessels at recreational facilities – exemptions	-	New regulation to enable exemption permits to be issued for operation of vehicles or vessels at recreational facilities (eg. go-kart tracks) located within 500m of domestic premises. <i>Permits for such facilities were previously issued under regulation 8A, which was a legally doubtful practice.</i>
7	Vehicles or vessels at recreational facilities – permits	-	Ditto.
8	Racing events and aquatic events – exemptions and noise limits	8A(1), (1A), (5) & (6)	Terminology changes. <i>To clarify the subject of the regulation, for legal reasons.</i>
9	Racing events and aquatic events – permits	8A(2), (3), (4)	<ul style="list-style-type: none"> <li>• Terminology changes. <i>To clarify the subject of the regulation, for legal reasons.</i></li> <li>• Conditions that may be included in a permit more closely specified. <i>Clarification required for legal reasons.</i></li> <li>• Fee of \$200 changed to 200 fee units. <i>To enable easier revision of the fee through omnibus legislation.</i></li> </ul>
10	Chainsaws – prohibition on operation within 300m of domestic premises	16(2)	Exemption removed for chainsaw use within 300m of domestic premises where the occupier of premises owns the land on which the chainsaw is being used. <i>Provides greater protection for occupiers of affected premises, particularly where the land on which the chainsaw is being used has been leased with no lease conditions relating to chainsaw use.</i>
11	Permits for operation of chainsaws within 500m of domestic premises	16(3)	Permit application and approval procedures inserted. <i>To provide the necessary administrative guidance and to align this permit provision with others in the Regulations.</i>
12	Motor vehicles in off-street areas – noise limits	7	<ul style="list-style-type: none"> <li>• Noise limits and vehicle categories in the associated Schedule have been updated. <i>To align the limits and categories with national standards for on-road vehicles.</i></li> <li>• 77 dB(A) drive-by limit for vehicles deleted. <i>New national drive-by noise limits are shortly to be introduced. The Regulations will be amended to incorporate them in due course.</i></li> </ul>

13	Mobile machinery – noise limits	9	<ul style="list-style-type: none"> <li>• Terminology and wording changes. <i>To clarify the regulation, for legal reasons.</i></li> <li>• Existing regulation split into two separate regulations. <i>To clarify the regulation, for ease of use.</i></li> </ul>
14	Fork-lift trucks and industrial motor vehicles – noise limits	9	Existing regulation split into two separate regulations. <i>To clarify the regulation, for ease of use.</i>
15	Motor vessels – noise limit	10	<ul style="list-style-type: none"> <li>• Noise limit to be measured when vessel is driven. <i>To clear up doubt; reflects present practice.</i></li> <li>• Warning device noise excluded from noise limit. <i>To clear up doubt; reflects present practice.</i></li> <li>• See also section 7.</li> </ul>
16	Outboard motors – noise limit	12	<ul style="list-style-type: none"> <li>• ‘Grandfather’ provision removed. <i>Provision was relevant in 1977 but is now outdated. Plant turnover should by now have replaced almost all grandfathered plant.</i></li> <li>• Noise limit to be measured when the associated vessel is driven. <i>To clear up doubt; reflects present practice.</i></li> </ul>
17	Portable apparatus (power tools, generators, etc) – noise limits	13	<ul style="list-style-type: none"> <li>• ‘Grandfather’ provisions removed from associated Schedule. <i>Provisions were relevant in 1977 but are now outdated. Plant turnover should by now have replaced almost all grandfathered plant.</i></li> <li>• See also section 7.</li> </ul>
18	Power lawn-mowers – noise limits	15	<ul style="list-style-type: none"> <li>• ‘Grandfather’ provision removed from associated Schedule. <i>Provision was relevant in 1977 but is now outdated. Plant turnover should by now have replaced almost all grandfathered plant.</i></li> <li>• See also section 7.</li> </ul>
19	Chainsaws - noise limits	16(1)	<ul style="list-style-type: none"> <li>• ‘Grandfather’ provisions removed. <i>Provisions were relevant in 1977 but are now outdated. Plant turnover should by now have replaced almost all grandfathered plant.</i></li> <li>• See also section 7.</li> </ul>
20	Air-conditioners (including heat pumps) – noise limits	17A & 17B	Measurement requirements removed, except distance of measurement. <i>Requirements are now specified in the Noise Measurement Procedures Manual.</i>
21	Permissible hours of use for various items	17(1)	Minor rewording. <i>For clarification.</i>

22	Permit for operation of mobile machinery, etc outside permissible hours of use.	17(2)	Permit application and approval procedures inserted. <i>To provide the necessary administrative guidance and to align this permit provision with others in the Regulations.</i>
23	Noise Measurement Procedures Manual – provision for Director to issue, and requirement to use	18	See section 8.
24	Approval to operate non-compliant articles	20	Conditions that may be included in an approval more closely specified. <i>Clarification required for legal reasons.</i>
25	Exclusions for emergencies, safety and essential services	21	<ul style="list-style-type: none"> <li>• Paragraph (b) restricted to emergency situations. <i>As the paragraph stands, plant such as a cooling unit which operates continuously for the safety or security of equipment comes within the scope of the exclusion, which was never intended.</i></li> <li>• Paragraph added to exclude the adequate provision of emergency services by emergency services personnel. <i>This exclusion is in the public interest and is not encompassed by the existing regulation.</i></li> </ul>
26	Infringement notices	22	Offence and penalty provisions removed and similar provisions inserted within each relevant regulation. <i>This is modern legislative drafting practice.</i>

## 6.2 Explanation of transferred provisions – general

The noise limits specified for various articles should be achievable when using AMT (in a few cases there is a grandfather provision for older articles, where a more lenient limit is specified). Compliance with the noise limits may be checked in accordance with the procedures specified in the Noise Measurement Procedures Manual, which requires a certain level of skill, the appropriate instruments and often the cooperation of the operator of the noise source (see further comment under section 8).

The permissible hours of use provisions in regulation 21 and Schedule 8 are based on what are considered to be socially acceptable hours for use of the specified articles (lawn mowers, power tools, etc) in residential areas. A particularly low noise limit applies outside of the specified hours to all articles specified in the Schedule. Compliance with the noise limit would generally mean that noise emissions would be inaudible inside of an adjacent domestic premises. As compliance with the noise limit is difficult, the provision effectively prohibits the use of the articles in urban areas outside of the specified hours. Permissible hours provisions are a very simple and straightforward means of preventing noise nuisance. Provision is made for the Director of Environmental Management to approve the operation of Schedule 2 and

3 vehicles outside of the Schedule 8 permitted hours. This allows special needs (eg. evening use of a crane at a domestic premises) to be addressed.

Separation distances are specified in two regulations. Regulation 4 prohibits the operation of off-street motor vehicles or vessels for pleasure within 500 metres of domestic premises, and regulation 10 prohibits use of chainsaws within 300 metres of domestic premises. Regulation 17 makes a distinction between various apparatus and equipment operated within 50 metres of a domestic or commercial premises, and articles operated further away, by specifying more stringent noise limits for closer operation. These provisions relate to noise sources with exceptionally high potential for nuisance at close range, where the noise levels achievable using AMT are far above what is acceptable to most people (the particular characteristics of noise from the specified articles may also be exceptionally irritating). Again, separation distance provisions are a very simple and straightforward means of preventing noise nuisance. In relation to the separation distances specified in regulations 4 and 10, provision is made for the Director to approve the operation of articles within the specified distances. This allows special needs (eg. occasional motor racing events or tree pruning by chainsaw in an urban area) to be addressed.

### 6.3 Costs and benefits for industry

As the provisions of the proposed Regulations are intended to reflect the use of AMT and are generally consistent with restrictions in other Australian jurisdictions, the provisions represent no special disadvantage in relation to Tasmania as far as the manufacture, sale or operation of articles is concerned.

Some of the provisions may restrict the operation of articles for industrial or commercial purposes or increase the cost of using them. Nonetheless, the provisions provide a general benefit by creating a consistent assessment framework for industrial and commercial users of the articles which are the subject of the provisions. The more significant impacts are listed in Table 2. The costs described are the same as those incurred by the 1977 Regulations, i.e. no increase in costs for industry is anticipated.

Table 2 – Possible impacts on industry of the proposed Regulations

<b>Proposed Regulation No.</b>	<b>Subject</b>	<b>Possible impact</b>
4	Use of vehicles or vessels for sport or recreation in off-street areas – prohibition on operation within 500m of domestic premises	There may be a cost impact for commercially operated racing events and aquatic events or motor recreational facilities proposed to be located within 500m of domestic premises, depending on whether the relevant council is prepared to issue a permit under regulation 7 or 9 and if so the nature of the permit conditions. An identical separation distance was specified in the 1977 Regulations.

7	Vehicles or vessels at recreational facilities – permits	The fee of 100 fee units (currently equivalent to \$111) for a permit issued under this regulation, plus the cost involved in making an application, imposes a burden on businesses establishing motor recreational facilities (eg. go-kart tracks). Nonetheless these costs would comprise only a small proportion of the cost of establishment. Payment of a fee was required under the 1977 Regulations.
8	Racing events and aquatic events – exemptions and noise limits	Compliance with the noise limits may add to the cost of staging events or the cost of vehicles and vessels used at events. In respect of motor vehicles the noise limit is that recommended by the Confederation of Australian Motor Sports (CAMS), so it should impose no exceptional burden. For both vehicles and vessels the specified limit is well above that specified under regulations 12 and 15 for conventional vehicles and vessels.
9	Racing events and aquatic events – permits	The fee of 200 fee units (currently equivalent to \$222) for a permit issued under this regulation, plus the cost involved in making an application, imposes a burden on businesses conducting commercial racing and aquatic events. Nonetheless these costs would comprise only a small proportion of the cost of organising a commercial event. Payment of a similar fee was required under the 1977 Regulations.
10	Chainsaws – prohibition on operation within 300m of domestic premises	The separation distance provision may add to the cost of a range of commercial activities. Chainsaws may need to be operated at locations on the site of the activity such that the separation distance will be maintained, which may increase costs. Nonetheless the options of obtaining a permit from the Director or the use of electric chainsaws are available. The conditions in a permit, if granted, may also impose costs. An identical separation distance was specified in the 1977 Regulations.
11	Permits for operation of chainsaws within 500m of domestic premises	The cost involved in making an application imposes a burden on businesses wishing to use chainsaws within 300m of domestic premises. Nonetheless this cost would comprise only a small proportion of business costs. Similar permits were required under the 1977 Regulations. No application fee is payable.
12	Motor vehicles in off-street areas – noise limits	A range of commercial vehicles (eg. delivery trucks) would need to comply with these noise limits when operating on private property. The stationary noise limits are identical to those specified in the <i>Vehicle and Traffic (Vehicle Standards) Regulations 2001</i> for vehicles used on public roads. There is therefore no additional cost impact for vehicles used on both public and private roads. There may be an additional cost for special purpose vehicles used off-road only, but the noise limits are unexceptional and should be readily achievable using AMT.
13	Mobile machinery – noise limits	Compliance with the noise limits specified by this clause may add to the cost of mobile machinery used for various types of construction work and in industrial activities. The noise limits are generally consistent with the typical construction plant noise levels specified in Australian Standard AS 2436, and should be readily achievable using AMT and standard plant. The limits are identical to those specified in the 1977 Regulations.

14	Fork-lift trucks and industrial motor vehicles – noise limits	Compliance with the noise limits specified by this clause may add to the cost of fork-lift trucks and industrial motor vehicles used for industrial activities. The noise limits are generally consistent with the typical construction plant noise levels specified in Australian Standard AS 2436, and should be readily achievable using AMT and standard plant. The limits are identical to those specified in the 1977 Regulations.
15	Motor vessels – noise limit	Compliance with this noise limit may add to the cost of motor vessels used for commercial and industrial purposes. Important examples are: <ul style="list-style-type: none"> <li>• vessels used in marine farming;</li> <li>• freight and passenger vessels using Tasmanian ports;</li> <li>• commercial fishing vessels; and</li> <li>• vessels used in tourism.</li> </ul> The noise limit should be readily achievable using AMT and is identical to that specified in the 1977 Regulations.
16	Outboard motors – noise limit	Compliance with this noise limit may add to the cost of small vessels used for commercial and industrial purposes. An important example is vessels used in marine farming. The noise limit should be readily achievable using AMT and is identical to that specified in the 1977 Regulations.
17	Portable apparatus (power tools, generators, etc) – noise limits	Compliance with the noise limits prescribed by this regulation may add to the cost of apparatus and equipment used for commercial and industrial purposes. The noise limits are generally consistent with the typical equipment noise levels specified in Australian Standard AS 2436, and should be readily achievable using AMT and standard equipment. The limits are identical to those specified in the 1977 Regulations.
18	Power lawn-mowers – noise limits	Compliance with the noise limits prescribed by this regulation may add to the cost of lawn-mowers used for commercial and industrial purposes. An important example is garden maintenance businesses. The limits should be readily achievable using AMT and standard plant. The limits are identical to those specified in the 1977 Regulations.
19	Chainsaws - noise limits	Compliance with the noise limits may add to the cost of chainsaws used for commercial and industrial purposes. The noise limits are identical to those specified in the 1977 Regulations.
20	Air-conditioners (inc. heat pumps) – noise limits	The provisions of this regulation were subject to regulatory impact assessment in 2000 <sup>10</sup> when they were inserted into the 1977 Regulations as SR 2000 No. 186.
21	Permissible hours of use for various items	This regulation applies only to the operation of Schedule 8 articles on domestic premises or on sites where domestic premises are being constructed. The only industry impact would therefore be upon the building construction industry in respect of construction of domestic premises. The provisions would strictly limit the hours during which work may take place in urban areas, thus limiting operational flexibility to a certain extent and increasing costs in some instances. The permissible hours are identical to those specified in the 1977 Regulations.

<sup>10</sup> *Regulatory Impact Statement – Environment Protection (Noise) Amendment Regulations 2000 – Noise Limits for Heat Pumps and Air-conditioners*; Department of Primary Industries, Water and Environment, Hobart, 2000.

22	Permits for operation of mobile machinery, etc outside of permissible hours of use	The cost involved in making an application imposes a burden on builders of domestic premises that wish to operate mobile machinery outside of the permissible hours (eg. where a mobile crane must be used to complete a lengthy task outside of permissible hours). Nonetheless this cost would comprise only a small proportion of the cost of premises construction. No application fee is payable.
23	Noise Measurement Procedures Manual	See section 8.
24	Approval to operate non-compliant articles	The cost involved in making an application imposes a burden on businesses that may need to operate non-compliant articles (eg. a specialised power tool on a construction site). Nonetheless this cost would comprise only a small proportion of the cost of business operation. No application fee is payable.

#### 6.4 Costs and benefits for State government

State government agencies and government business enterprises were subject to the provisions of the 1977 Regulations and would likewise be subject to the proposed Regulations. The most affected are the Department of Infrastructure, Energy & Resources (in respect of road construction and maintenance) and Forestry Tasmania, and their contractors. A wide variety of vehicles and plant are used in roadworks and forestry activities. Maintenance activities of the electricity supply enterprises (Hydro Tasmania, Transend and Aurora) and their contractors, and the water authorities, would be covered by the essential services exemption in regulation 25. Parks & Wildlife Service and some other agencies may be affected by the Regulations when using various items of maintenance and construction equipment. Any costs associated with compliance with the proposed Regulations would ultimately be a cost to the taxpayers of the State, but these costs are not expected to differ from costs of compliance with the 1977 Regulations.

The 1977 Regulations created a small workload for the Environment Division of DPIWE in the provision of advice and technical assistance to local government and other parties, but this is not expected to change under the proposed Regulations.

Tasmania Police incurred costs in the enforcement of the 1977 Regulations (mainly outside of business hours). The following activities may have been required, at associated cost:

- initial receipt and assessment of complaints;
- site visits;
- issue of infringement notices;
- preparing evidence for prosecutions; and
- officer attendances in court.

The above pattern would not change under the proposed Regulations.

The State government derived revenue from the issue by authorised officers (mainly police officers) of environmental infringement notices against breaches of the 1977 Regulations. Revenue was paid into the Environment Protection Fund in accordance with section 71(2) of the Act. There were no prosecutions under the Regulations. Revenue from infringement notices averaged only \$200 per year, and this is not expected to change under the proposed Regulations.

## **6.5 Costs and benefits for local government**

Councils incurred costs in the enforcement of the 1977 Regulations. The following activities may have been required, at associated cost:

- initial receipt and assessment of complaints;
- site visits;
- noise measurements by council officers;
- engagement and briefing of a consultant to take measurements, and evaluation of the consultant's report;
- negotiation with the perpetrator regarding noise abatement measures;
- issue of infringement notices;
- obtaining legal advice on prosecutions;
- preparing evidence for prosecutions; and
- staff attendances in court.

The above pattern would not change under the proposed Regulations.

Investigation of possible breaches of the proposed Regulations will generally be complaints driven, as it was with the 1977 Regulations. Local government currently receives an average of around 530 noise complaints per year involving sources covered by the 1977 Regulations. The cost of investigating a typical noise complaint is in the range \$100-600 (although in a few exceptional cases it may be far higher)<sup>11</sup>. Assuming an average cost of \$350 per complaint, total cost to councils of investigating and resolving complaints would be around \$185,500 per year. This is not expected to change under the proposed Regulations.

Councils derived negligible revenue from the issue of environmental infringement notices against breaches of the 1977 Regulations, and Councils rarely prosecuted breaches of the Regulations. Revenue from this source is not expected to change.

## **6.6 Costs and benefits for the community**

The obvious benefit to the community from the 1977 Regulations, which would continue under the proposed Regulations, was substantially improved environmental amenity and protection of health. The provisions provide a clear standard on what is expected in regard to noise emissions from the use of articles, which has both a regulatory value and a public education value.

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<sup>11</sup> From cost estimates provided by five councils (personal communications).

On the other hand, the provisions represent a social cost to the community by restricting the operation of articles. For example regulation 21 requires that power tools must not be used on a domestic premises after 6.00 pm on any day unless the noise emissions are quite low at any neighbouring residence, a requirement which is difficult to achieve in an urban situation (the same requirement existed under the 1977 Regulations). This strictly limits the use of power tools in home workshops and the hours during which home repairs or renovations may take place. Another common example is the recreational use of trail bikes within 500 metres of domestic premises, which is generally prohibited by regulation 4. There are also economic costs incurred by the noise limit provisions, because of the increased cost of articles which comply with the specified levels. As the noise limits represent AMT they should not be difficult to comply with using standard articles.

The permit fees payable under regulations 5 and 9 would impose a minor burden on private individuals or community groups that wish to obtain a permit operate motor vehicles or vessels for sport or recreation within 500 metres of domestic premises or to conduct a motor racing or aquatic event within 500 metres of domestic premises. The fees are not particularly large, however.

## 6.7 Restrictions on competition

The provisions of the 1977 Regulations have not seriously affected the viability of any business, as far as is known, and the situation will not change under the proposed Regulations. Nonetheless there may be adverse competition effects in some instances, which are described in Table 3.

Table 3 – Possible restrictions on competition

<b>Proposed Regulation no.</b>	<b>Subject</b>	<b>Possible restriction on competition</b>
4	Use of vehicles or vessels for sport or recreation in off-street areas – prohibition on operation within 500m of domestic premises	Cost impact of the separation distance for vehicles/vessels used commercially for racing, amusement or tourism purposes would create a market entry restriction and a competitive conduct restriction by adversely affecting competition with other forms of entertainment and tourism. It may also favour those businesses that are able to more easily meet the separation distance provision. The provision for issue of exemption permits in regulations 7 and 9 would ameliorate these effects to some extent.
10	Chainsaws – prohibition on operation within 300m of domestic premises	The separation distance provision could create a market entry restriction and a competitive conduct restriction by favouring those businesses that are able to more easily meet the separation distance provision (eg. those which are located on large sites), however the provision for issue of exemption permits would ameliorate this effect to some extent.

12	Vehicles in off-street areas – noise limits	In the case of special purpose vehicles only used off-road and commercially for amusement or tourism purposes, the cost of compliance would impose a market entry restriction and a competitive conduct restriction by adversely affecting competition with other forms of entertainment and tourism. Grandfather provisions for older vehicles would marginally favour businesses using them and present a market entry and competitive conduct restriction for businesses using newer vehicles, all other things being equal.
13	Mobile machinery – noise limits	Grandfather provisions for older plant would marginally favour businesses using them and present a market entry and competitive conduct restriction for businesses using newer vehicles, all other things being equal.
14	Fork-lift trucks and industrial motor vehicles – noise limits	Ditto.
15	Motor vessels – noise limit	Grandfather provisions for older vessels would marginally favour businesses using them and present a market entry and competitive conduct restriction for businesses using newer vehicles, all other things being equal.
16	Outboard motors – noise limit	No significant impact on competition.
17	Portable apparatus (power tools, generators, etc) – noise limits	Ditto.
18	Power lawn-mowers – noise limits	Ditto.
19	Chainsaws - noise limits	Ditto.
20	Air-conditioners (including heat pumps) – noise limits	The provisions of this regulation were subject to regulatory impact assessment in 2000 <sup>12</sup> when they were inserted into the 1977 Regulations as SR 2000 No. 186.
21	Permissible hours of use for various items	As the provisions apply to sites on which domestic premises are being constructed but not to other building sites, they would disadvantage building companies which solely or primarily build domestic premises. As the 45 dB(A) noise limit is measurable at adjacent domestic premises, the provisions would disadvantage companies building domestic premises in urban areas to a greater extent than companies building in rural areas, all other things being equal.
23	Noise Measurement Procedures Manual	See section 8.

<sup>12</sup> See footnote 10.

## **6.8 Alternatives**

As the provisions considered in this section constitute the bulk of the proposed Regulations, the main alternatives are those described in section 4. A further alternative exists in respect of these provisions, which is to specify different requirements in individual provisions (different noise levels, separation distances or operating hours). In view of the impending assessment of Part 7 of the Draft EPP by the EPP Review Panel, it was considered inappropriate to make major changes to specific requirements of the Regulations at this point of time. As indicated in section 1.2, the Review Panel may recommend changes in its report. Some minor updating has been carried out, as described in section 6.1.

## **6.9 Preferred option**

The preferred option is to transfer the existing provisions listed in Table 1, with minor changes as described, from the 1977 Regulations to the proposed Regulations. This option is considered to have the greatest net public benefit, as the benefits of improved environmental amenity and human health are likely to outweigh the identified costs.

## 7. TYPE APPROVAL AND SUPPLY PROVISIONS

As mentioned in section 2.2, the State government's Legislation Review Program report on the 1977 Regulations considered that, in view of the impacts on business or competition, controls on the sale of apparatus and vehicles should be discontinued. The usefulness of the remaining type approval and supply provisions is questionable, as they have never been enforced. Noise levels often increase after the time of sale due to modification or inadequate maintenance, and the operational noise provisions therefore have greater usefulness. Another relevant factor is the *Mutual Recognition Act 1993*, which mirrors Commonwealth legislation allowing the sale of an article in any Australian jurisdiction as long as it is approved for sale in another jurisdiction. As several other jurisdictions do not have type approval or point-of-sale noise limits applying to the type of articles in question, provisions of this kind in the proposed Regulations may be invalid. For these reasons, the type approval and supply provisions have not been transferred to the proposed Regulations. The provisions not transferred are shown in Table 4.

Table 4 – Supply and type approval provisions not transferred

<b>1977 Regulation No.</b>	<b>Provision not transferred</b>
3(2)	Interpretation of 'supply'
10	'Supply' noise limit for motor vessels
11	Supply and type approval for outboard motors
13	'Supply' noise limit for apparatus & equipment
14	Supply and type approval for power lawn-mowers
15	'Supply' noise limits for power lawn-mowers
16	'Supply' noise limit for chainsaws
19	Type approvals – general provisions

The operational noise limits (regulations 12-20 of the proposed Regulations) have an indirect effect on the standard of new articles, because manufacturers, importers and retailers are unlikely to offer for sale articles that do not comply with the operational limits.

## 8. MEASUREMENT

### 8.1 Explanation of provisions

The proposed Regulations specify noise limits for various sources. It will sometimes be necessary for regulatory authorities to take measurements in the field to check compliance with the noise limits, or less frequently to require the person responsible for a noise source to arrange for measurements to be taken. It is therefore necessary to specify the manner in which measurements are to be taken and the locations and conditions under which it is to be done. Measurements must be accurate, comparable and consistent and instrumentation must comply with the Commonwealth's *National Measurement Act 1960*, so that measurements may be legally defensible in tribunals and courts.

Regulation 23 (which is the equivalent of regulation 18 in the 1977 Regulations) specifies that the Director of Environmental Management is to issue a Noise Measurement Procedures Manual and requires any measurement of noise or noise test for the purposes of the Regulations to be made in accordance with the Manual. The Manual provides interpretation of noise limits specified in the Regulations, specifying such things as the location of microphones used for measurement.

The Manual will perform a similar role to the existing *Code of Practice for Sound Pressure Level Measurement* which is issued by the Director under regulation 3(3) of the 1977 Regulations. The Manual is based on the existing Code but expands upon it to cover additional matters which are likely to be covered by the EPP. It also updates the Code to take into account recent technological developments. Its provisions are drawn from various Australian Standards and similar documents, and from the measurement documents of other jurisdictions. The draft Manual accompanies this RIS. Parts C, D, F and G of the Manual are not relevant to the proposed Regulations and comment on those Parts is not sought.

Sub-regulation 23(6) allows the Director to authorise or require measurements which are not in accordance with the Manual, for a specific purpose. This provision is necessary to cater for unusual and unforeseen situations which arise prior to review and revision of the Manual.

The Manual could be used by any of the following for the purposes of noise measurement:

- scientific/technical officers in DPIWE;
- scientific/technical officers in other government agencies or GBEs
- council environmental health officers;
- scientific/technical officers in industry; and
- acoustical consultants.

## 8.2 Cost-benefit analysis

The Manual will provide an important benefit to the extent that it will provide clear expectations regarding the type and specification of noise measurements required and by ensuring that the resulting measurements will be acceptable to the relevant regulatory authority. For organisations or individuals engaging consultants to undertake measurements there would be greater certainty about the nature of the work required and therefore the costs involved than there would be in the absence of the Manual.

The Measurement Manual would have a considerable cost impact upon any person or organisation making measurements for the purposes of the Regulations, although not beyond the costs presently incurred by doing measurements in the proper manner. Costs are attached to the following:

- purchase, calibration and maintenance of specialised instruments specified in the Manual;
- training in acoustical science and in making measurements and calculations;
- time taken to make multiple measurements where specified in the Manual; and
- time taken to record information and complete the record sheet specified in the Manual.

There is no licensing or accreditation scheme nationally or in Tasmania for persons making noise measurements. There is no requirement to hold a particular qualification or have certain experience. However, it will be necessary to demonstrate that the procedures specified in the Manual have been observed in order to ensure that a noise measurement is sufficiently robust to defend against complaint.

This situation is not new, and applied in respect of measurements made to check compliance with the 1977 Regulations. In practice, nearly all noise measurements in Tasmania that must be legally defensible are made by specialist acoustical consultants, only a few of whom are based in Tasmania. The Environment Division of DPIWE also has scientific officers who are competent to make noise measurements, which the Division does for its own regulatory purposes and occasionally to assist councils.

Industrial companies nearly always engage specialist consultants to undertake noise studies, although a few of the larger companies would have the capacity to employ in-house specialist staff.

Councils are generally unable to afford specialist staff and either call upon DPIWE for assistance or engage consultants. A few councils possess the type of noise instruments specified by the Manual and their environmental health officers sometimes make measurements for indicative purposes in the course of checking compliance with the 1977 Regulations. The Manual specifies slightly relaxed requirements for measurement of small sources at close range, a type of measurement that councils would commonly undertake to check compliance with the proposed Regulations. Training of council officers in the making of noise

measurements to a standard which is legally defensible is an ongoing issue which needs to be resolved in due course.

### **8.3 Restrictions on competition**

From the foregoing discussion it is clear that the requirements of the Manual may restrict the provision of noise measurement services to specialist consultants with access to appropriate equipment, except where an organisation can afford to engage specialist in-house staff. Although a formal licensing requirement is not specified there would effectively be a restriction on market entry, but this represents little change from the existing situation. The alternative of in-house measurement would be enhanced by the availability of a TAFE or similar training course in noise measurement within Tasmania. DPIWE is currently investigating this option. More organisations, both government and private, could afford to train their scientific and technical staff in noise measurement if a local course were available, and the pool of competent consultants could also be widened.

### **8.4 Alternatives**

Alternatives to the introduction of the regulation 23 provisions are:

- not include the provisions;
- include advisory provisions, i.e. do not mandate the use of the Manual;
- call up Australian Standards and other guidelines rather than specify procedures in the Manual;
- adopt the measurement procedures of another jurisdiction; and
- specify simpler procedures in the Manual.

The existing Code of Practice expired along with the 1977 Regulations on 1 January 2004. If the regulation 23 provisions are not included, there will be no guidance on how to make measurements for the purposes of the Regulations. Measurements may be legally indefensible. There may be insufficient quality control and lack of comparability of measurements made at different times or by different persons.

Advisory provisions could result in measurements which are less accurate, consistent and legally defensible than measurements made in accordance with mandatory provisions.

The provisions of Australian Standards and foreign and international equivalents are typically expressed in advisory and sometimes ambiguous language which may be open to various interpretations. Standards also commonly offer several choices in a particular matter. Australian Standards are increasingly avoiding the specification of key technical parameters and instead specifying that the requirements of the responsible regulatory authority are to be followed. If a Standard or similar document were called up by the Regulations, it may be necessary to provide interpretation of a number of matters within the Standard. By specifying procedures directly in the Manual these difficulties are avoided.

Whilst there are technical similarities between the noise measurement procedures of each jurisdiction, each is tailored to the noise regulations, guidelines or policy of the jurisdiction. There are also some minor technical differences resulting from differing local approaches to measurement. It is therefore impractical to simply adopt the noise measurement procedures of another jurisdiction in their entirety. Procedures have, however, been drawn from other jurisdictions in respect of particular matters.

Simpler procedures would lessen the requirement for specialist staff or consultants to undertake noise measurements, but would lead to less accuracy and comparability in measurements. It would also be out of step with practice in other jurisdictions and inconsistent with the recommendations of the relevant Australian Standards. This may result in regulatory authorities opting for tighter noise limits than those in the Regulations, to provide a 'safety' margin. Furthermore, conflict could arise where a party chose to make more complex and accurate measurements than those specified in the Manual in order to challenge measurements made in accordance with the Manual.

### **8.5 Preferred option**

The preferred option is to adopt the provisions specified in regulation 23, i.e. mandatory application of the provisions of the Noise Measurement Procedures Manual. It is considered that this option has the greatest net public benefit, as the benefits of providing a consistent framework for the measurement of noise are likely to outweigh the identified costs.

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POLLUTION CONTROL (MISCELLANEOUS  
NOISE) REGULATIONS 2004***