

Approved Methods for the Measurement and Analysis of Environmental Noise: Technical Note

The NSW Environment Protection Authority (EPA) has published a draft *Approved Methods for the Measurement and Analysis of Environmental Noise in NSW* ('Approved Methods') for consultation.

The draft Approved Methods has been prepared to set out the EPA's requirements for the measurement and analysis of environmental noise in NSW. When finalised, it may be referenced by the EPA in statutory instruments, such as environment protection licences (for example, in circumstances where the measurement and analysis of environmental noise is required to demonstrate compliance with a regulatory requirement relating to noise pollution).

Overview

The draft Approved Methods sets out minimum requirements and good-practice methods for the measurement and analysis of environmental noise. It defines the procedure(s) for determining compliance with noise conditions and can be required under instruments such as:

- an environment protection licence
- a notice issued under the Protection of the Environment Operations Act 1997 (POEO) by the EPA
- an instrument such as a planning consent issued by another government organisation.

Applying the procedures in the Approved Methods will ensure that acoustic data associated with EPAregulated activities or premises will be measured and analysed consistently and presented in a transparent manner to ensure the findings are credible, based on clear evidence, and can be relied upon by the EPA for regulatory decision-making.

The draft Approved Methods differs from the *Approved Methods for Testing Noise Emissions*. This latter document specifies the test procedures for establishing maximum noise levels for equipment labelling and methods to determine compliance with prescribed noise limits for articles defined in the Protection of the Environment (Noise Control) Regulation 2017.

Why is the Approved Methods needed?

As the primary environmental regulator in New South Wales, the EPA administers the POEO Act to protect, restore and enhance the quality of the environment.

The EPA is responsible for regulating the premises and activities defined in Schedule 1 of the POEO Act. It does this by issuing environment protection licences with enforceable conditions such as noise limits, pollution-prevention requirements, pollution-reduction programs and audits.

EPA policies and guidelines such as the *Noise Policy for Industry* (NPfI) and the *Interim Construction Noise Guideline* (ICNG) describe methods to assess and manage noise impacts. These policies are typically applied at the development consent stage and/or when an environment protection licence is being applied for, to assess the extent of any noise impact and identify 'feasible' and 'reasonable' mitigation to manage noise impacts. The EPA considers the outcome of these assessments, including any recommended mitigation measures (such as noise limits, time-of-use restrictions, engineering controls and community engagement to manage noise) when setting conditions in environment protection licences. Around 20% of the (approximately) 4,500 licences issued by the EPA have conditions to manage noise. These conditions typically include:

- noise limits absolute limits and/or limits relative to the background noise level that must be met at defined locations and time periods
- restrictions on when and/or where a defined noise-making activity can operate
- requirements for audits to demonstrate compliance with conditions to manage noise
- performance reporting requirements, such as periodically assessing compliance and reporting outcomes and/or in response to noise complaints.

However, some environment protection licences do not define the requirements on the methods that the licensee must use to measure and analyse environmental noise for the purpose of evaluating compliance with statutory noise requirements. This can lead to regulatory and reputational risks for licensees, affect community and industry confidence in the performance of the EPA, and fail to deliver improved environmental outcomes. The EPA also seeks to streamline and simplify licences where there are opportunities to do so.

The draft Approved Methods serves to address this gap and allow for simplification of licences in the future by consolidating technical advice on the measurement and analysis of environmental noise applicable to EPA-regulated activities or premises.

What's in the Approved Methods

The Approved Methods sets out advice in four main parts as follows:

- **Introduction.** This sets out the objective and role of the draft Approved Methods and describes how it interacts with other noise policies, guidelines, standards and methods.
- **Minimum requirements for measuring and analysing noise.** This includes minimum requirements for instrumentation, the competence of any person(s) undertaking the measurement and/or analysis of environmental noise, and requirements for record keeping. These minimum requirements must be applied when the Approved Methods is used to measure and analyse noise from EPA-regulated premises or activities or as directed by the EPA.
- **Good-practice methods for measuring and analysing noise.** This sets out the general principles that must be considered by a competent person in the context and intended purpose of the measurement. Licensees must keep appropriate records that provide sufficient information for regulatory decision-making purposes as set out in section 4 of the Approved Methods.
- **Record-keeping.** This part sets out the minimum record keeping requirements that will provide sufficient information and evidence to support and justify any conclusions or recommendations arising from the measurement and analysis of environmental noise when reviewed by a competent person. This will ensure EPA confidence in the noise measurement and/or analysis procedures for regulatory decision-making purposes.

When does the Approved Methods apply?

The Approved Methods must be used by licensees and other persons regulated by the EPA when required to do so. This is typically the case where an environment protection licence or other statutory instrument references the Approved Methods, or where the EPA directs that the Approved Methods be used. The main users of the Approved Methods will be licensees and the acoustic consultants they appoint to carry out their statutory monitoring requirements.

The Approved Methods does not replace the general advice on the measurement and analysis of environmental noise described in standards such as Australian Standards 1055: 2018 *Acoustics* – *description and measurement of environmental noise* (AS 1055), or the specific requirements for the measurement and analysis of environmental noise in EPA noise polices and guidelines. Rather, the Approved Methods sets out minimum technical and reporting requirements and good-practice methods for the measurement and analysis of acoustic data associated with EPA-regulated activities. It is

consistent with current EPA requirements, accepted industry practice and standards including AS1055. As such, it does not place any new requirements on licensees and other regulated stakeholders, but provides clarity about the EPA's minimum expectations for noise monitoring.

Applying the Approved Methods

The Approved Methods requires that the measurement and analysis of environmental noise must be undertaken by a 'competent person' (defined in the Approved Methods). This is because noise emissions and noise measurements can be affected by many different factors, which must all be considered. Where necessary, adjustments must be made to ensure that the reported noise level is representative of noise emissions from the source of interest.

The Approved Methods require detailed reporting of the measurement method, prevailing conditions, and any adjustments made to a measurement (with clear supporting evidence), so that the measurement can be relied upon by the EPA for regulatory decision-making. This is consistent with the matters that the EPA must take into consideration in its licensing function as set out in Section 45 of the POEO Act; specifically:

- 45 (c) "the pollution caused or likely to be caused by the carrying out of the activity or work concerned and the likely impact of that pollution on the environment"; and
- 45 d) "the practical measures that could be taken:
 - (i) to prevent, control, abate or mitigate that pollution, and
 - (ii) to protect the environment from harm as a result of that pollution".

This broadly means that the EPA requires sufficient evidence to understand the extent of any noise impact, and (where appropriate) how it will be managed. The Approved Methods helps to achieve this aim by setting out minimum requirements and good-practice methods for the measurement and analysis of environmental noise.

Conclusion

The Approved Methods aims to ensure that acoustic data associated with EPA-regulated activities or premises is credible and consistent, is presented in a clear and transparent manner, and can be relied on for regulatory decision making. It does this by setting out minimum requirements, describing good-practice methods and procedures for specific circumstances, and standardising reporting requirements.

The Approved Methods requires a competent person to carry out noise monitoring, exercising all appropriate skill and experience to apply the methods and procedures to account for (and report) the variables that can affect environmental noise.

The use of the Approved Methods will provide increased certainty for communities that the measurement and analysis of environmental noise reflects good practice and leads to improved environmental outcomes, and greater certainty and consistency in requirements for the regulated community.

The EPA intends to finalise the Approved Methods in the first half of 2021 after taking into account submissions received during the public consultation period. It is intended the document will then be published in the NSW Government Gazette and published on the NSW legislation website by July 2021.

To view the draft documents and the Frequently Asked Questions, and to have your say on the proposed changes, visit the EPA <u>Have your say</u> portal.

NSW Environment Protection Authority

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