



# Acoustics

for small industry and manufacturing businesses

## Fact Sheet

### Know your risks

A basic risk analysis can help you understanding the likely consequences of noise impacts. For larger industrial or commercial uses that include manufacturing, warehousing or other supply industries, a detailed acoustic report is required.

All noise from industrial, commercial and trade premises is required to comply with EPA Publication 1826. Operators also need to consider the requirements of the [General Environmental Duty under the Environmental Protection Act](#).

### Operating Plant, Loading and Despatch Areas

Applicants and their acoustic reports should consider the following:

- Plant that runs all hours of the day, not just during operating hours
- The siting of plant and whether it is enclosed or outdoors
- Mobile plant such as forklifts, delivery and waste trucks

For mobile plant sources that cannot be controlled on-site, consider limiting the hours for these particular uses to 7am-6pm, unless expert advice indicates that the proposal will comply with the noise limits during other hours.

For fixed plant, the acoustic report will largely depend on the accuracy of information provided so that noise modelling can be relied on. Benchmarking of similar plant noise levels may be required if available.

A detailed acoustic assessment will be required to properly address noise impacts and determine the correct noise limits.

### Cumulative Noise Impacts

Larger industrial and commercial sites are often sited together and it is important for you to understand what impacts are already occurring from other established uses in the area. Cumulative noise impacts from multiple sites may need to be considered as part of your application so the total noise emission from all industry complies with the Environmental Protection Regulations and EPA Publication 1826.



## Understand your zoning and existing conditions

What is an acceptable noise emission from an industrial or commercial use will largely depend on:

- The zone which the applied land is situated
- Surrounding zoning
- Existing background noise at a sensitive use
- Existing cumulative noise impacts from other established industry

An industrial or commercial zone does not mean that there are no noise restrictions and requires specialist advice from a suitably qualified acoustic consultant to determine what is reasonable.

There are other planning scheme requirements that also need to be complied with regard to what activities can occur with specific zoning.

Applicants should consider:

- Whether the site is suitable for the proposed scale and operation
- Residential areas or sensitive properties that may interface with the industrial or commercial zoning
- Worst-case operational scenarios with respect to hours of operation, plant processes and weather conditions that carry the rumble of noise greater distances from the site

## NOISE CONTROL TIPS AND WHAT TO LOOK FOR

- Visit the site to consider the appropriateness of the type and scale of the operation proposed. Be particularly mindful when the property directly interfaces with residential uses
- 24-hour or late-night operation is often difficult to support where a commercial use is adjacent to any sensitive uses
- Enclose noisy plant within the building
- Seek specialist advice from an acoustic consultant and mechanical consultant on how to enclose a plant that requires ventilation
- Install attenuators to ducting and fans that terminate outside and orientate openings away from neighbours
- Screen outdoor plant with heavy cladding that is higher than the noise emission point so as to break line of sight between plant and sensitive neighbours
- Consider access points and routes to site for commercial vehicles and how noise impacts can be minimised, both while vehicles are on and off site
- Be aware of any large screening or building surfaces that might give rise to acoustic reflections and treat surfaces with absorptive acoustic finishes
- Be aware that large untreated factory buildings can give rise to reverberant noise, which increases the overall noise emission, and can be controlled using suitably constructed acoustically absorptive panels fixed to walls and ceilings



## What you should consider in a permit application

Your application should contain clear information on the proposal (or included in the acoustic report) including:

- a. Operating hours sought including hours for plant that operates outside of trading hours.
- b. An acoustic report that includes:
  - i. Identification of all sensitive uses in proximity to the site
  - ii. How noise limits have been established
  - iii. Any noise modelling that has been carried out to assess the proposal, and the basis of the noise information assumed that reflects the proposal
  - iv. Mitigation requirements that need to be constructed or implemented on the site
  - v. Operational controls or conditions that the proposal would need to abide with

## What to expect after you submit your application

After your application is lodged with Council, it may be reviewed to determine if:

- the application documents are satisfactory in relation to addressing noise impacts
- further information is required for specific noise issues or controls to be addressed
- permit conditions need to be considered for the application to be approved

A period of advertising and community response may also impact on whether your application is approved. Concerns regarding noise impacts commonly arise through this process and Council may take these objections into account when making a decision.

If a permit is approved, you should understand that the permit conditions need to be adhered to and that Council carries out investigations to ensure compliance with a permit, which may include conditions to control noise.

There may also be further requirements before your documentation is endorsed under the permit, such as further acoustic information and a requirement for amended plans that are consistent with the recommendations provided in your acoustic report.

