

Standard Conditions Manual

Odour

Disclaimer

The information in this Standard Conditions Manual is, according to the Auckland Council's best efforts, accurate at the time of publication. Auckland Council makes every reasonable effort to keep it current and accurate. However, users of the Conditions Manual are advised that:

- *Although the conditions are "standardised", in the sense that they should be applied consistently where they are required, this does not mean that they should all be applied in every instance. Applicants need to consider the nature of the activity, and the characteristics of the site and its surroundings in considering whether to apply each and every condition.*
- *The standard conditions should be used with caution as a starting point from which appropriate conditions for the individual consent should be drafted to align with the requirements of ss108, 108AA and 220 of the Resource Management Act 1991.*
- *Further guidance as to whether to apply the conditions are included in the guidance notes that accompanies each condition.*
- *Users should take specific advice from qualified professional people before undertaking any action as a result of information obtained in this Standard Conditions Manual.*
- *Auckland Council does not accept any responsibility for, or liability whatsoever whether in contract, tort, equity or otherwise (including negligence) arising from the use of, or reliance on, this Standard Conditions Manual. This includes, without limitation, any liability arising from any error, or inadequacy, deficiency, flaw in or omission from the information provided.*

Introduction

The purpose of these odour conditions is to control obnoxious and offensive odours being discharged from a site where resource consent has been granted for development or an activity.

These conditions relate to land use consents that do not require an air discharge consent. (e.g. small batch coffee roasters or rural activities such as goat farms)

Which conditions should I use?

An odour is a sensation resulting from the reception of a stimulus by the olfactory sensory system. The way the human response to an odour is evaluated depends on the particular sensory property that is being measured, including the intensity, detectability, character and hedonic tone of the odour. The combined effect of these properties is related to the annoyance that may be caused by the odour.

The prevention of objectionable or offensive odour from a site can be achieved in a variety of ways, either by:

- compliance with procedures set out in a management plan or industry code of practice which aims to ensure adverse effects are minimised;
- conditions requiring no offensive or objectionable odour beyond the boundary (or a buffer area);
- operating conditions to prevent odour effects (e.g. technology such as scrubbers which remove odour causing contaminants);
- conditions that reduce an odour being objectionable or offensive by receptor sensitivity, such as the requirement for community consultation, community liaison plans, conditions requiring odour causing works to be time limited (to outside hours that neighbours will be outdoors) conditions to require works to stop as a result of complaints; and
- review conditions (to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage).

This section of the conditions manual covers only those conditions where odour is controlled within the boundary, or where a system failure and stop work is required.

Please use the management plan conditions where your intention is to control odour through a management plan or code of practice regime. Also speak to the Council Contamination, Air and Noise Team for more advice. For example:

The consent holder must comply as far as practicable in the management of the piggery with the code of practice for pig farming published by the Pork Industry

Board (November 1990) save for such modifications as indicated by these conditions. (*Morgan v Banks Peninsula DC (EnvC) C177/99*)

or

The operation must be in accordance with the Composting Management Plan dated August 1994 attached to and forming part of this consent. (*Meadow Mushrooms Ltd v Selwyn DC (PT) C83/94*)

For operational conditions consult a Council Contamination, Air and Noise specialist. For example:

That the effluent storage system is operated in such a manner as to ensure that anaerobic conditions do not exist in that system. Prior to the consent holder commencing the activity authorised by this consent:

- a. The effluent treatment system must be inspected by a qualified consultant (the identity of whom is acceptable to the council) engaged at the expense of the consent holder;
- b. The consultant must provide a certificate that confirms that the system has been engineered and constructed so as to ensure efficiency of operation and that emission of offensive odour is minimised; and
- c. The consultant must also confirm in his certificate that, on inspection, the effluent holding tank appears sound and not liable to leakage.

Effluent is:

- d. to be directed to areas of the property in such a way as to avoid or to mitigate adverse odour effects on neighbouring properties;
- e. to be spread in a way that does not:
 - i. enter or contaminate stock water races
 - ii. run off the consent holders land.

(*Morgan v Banks Peninsula DC (EnvC) C177/99*)

For review conditions please see standard condition 5.

The level of annoyance caused by an odour is measured as a function of the FIDOL factors, which are Frequency, Intensity, Duration, Offensiveness and Location (see Good Practice Guide for Assessing and Managing Odour in New Zealand MfE 2003).

Frequency indicates how often a person is exposed to an odour. Even a nice odour can be perceived as a nuisance if exposure is too frequent. At low concentrations a rapidly fluctuating odour can be more noticeable than a steady background odour, therefore a high frequency may be an aggravating factor.

Intensity indicates the strength of the odour; it is related to the logarithm of the odour concentration (Steven's law)¹.

Duration indicates the time length of an odour episode, i.e. how long the concentration remains consecutively above the odour threshold.

Offensiveness is a mixture of odour character and hedonic tone² at a given odour concentration. Some odours are universally considered offensive, such as decaying animal matter or rotten eggs. Other odours may be offensive only to those who suffer unwanted exposure, for example coffee roasting odour.

Location involves the consideration of the type of land use and nature of human activities in the vicinity of an odour source. Particular attention must be paid to sensitive receivers, which include housing, schools, hospitals, commercial premises (such as restaurants, offices, shops etc.) and outdoor recreational space. In some industrial areas council expects that the amenity will be lower and therefore odorous activities are deliberately allowed in these locations.

Please consult the council Contamination, Air and Noise Team for further advice.

¹ Refer to 'Technical Report 24 –Review of Odour Management in New Zealand published by the Ministry for the Environment August 2002' for a discussion of Steven's Law.

² Hedonic tone is the subjective rating of pleasantness or unpleasantness of an odour. This double meaning can be confusing: on the one hand offensiveness is one of the FIDOL factors and can be used in relation to a pleasant odour; on the other hand we use the RMA definition of 'offensive or objectionable odours', where offensive means unpleasant. It may help to remember that the RMA definition has a much broader meaning, which encapsulates the combined effect of all the FIDOL factors. See 'Technical Report 24 –Review of Odour Management in New Zealand published by the Ministry for the Environment August 2002' page 9.

Conditions

Condition 1: Odour control within boundary

For the duration of the consented activity, there must not be any objectionable or offensive odour discharged from the site to the extent that it causes an adverse effect beyond the boundary of the property on which this consent is exercised.

Advice Note:

The Team Leader Compliance Monitoring [specify area] will use the following FIDOL factors to verify whether an odour is offensive and objectionable to the extent that it causes an adverse effect beyond the boundary of the site on which the odour is generated (see also Auckland Unitary Plan Air Quality General Standards E14.6.1.1):

- Frequency – how often an individual is exposed to odour.
- Intensity – the strength of an odour.
- Duration – the length of a particular odour event.
- Offensiveness/character – the character relates to the hedonic tone of the odour, which may be pleasant, neutral or unpleasant.
- Location – the type of land use and nature of human activities in the vicinity of an odour source.

Guidance Note:

This condition can be imposed on consents where there are high risk receptors (e.g. residents, schools etc) and/or there is a low risk that adverse odour may be generated from the activity being consented e.g. isolated rural activities, small batch coffee roasters. Where there is a high risk of obnoxious or offensive odours please consult a Council specialist to assess the application and write site specific conditions. For discussion of FIDOL factors see introduction above.

Condition 2: Procedures for abnormal or accidental emissions

In the event of any failure of the [describe consented activity or facility eg oxidation ponds] that results in any discharge of odour that is in breach of any condition of this consent, the Consent Holder must:

- a. Immediately take all practicable steps to avoid further breach of any condition of consent.

- b. Take immediate steps to remedy and/or mitigate any adverse effects on the environment caused by the discharge of such odour; and
- c. Notify the Team Leader Compliance Monitoring [specify area], within 24 hours after the malfunction of the [describe activity or facility] has been detected; and
- d. If required by the Team Leader Compliance Monitoring [specify area], provide (within 24 hours) a written report detailing: the manner and cause of the malfunction; the nature and extent of the discharge to air; and the steps taken (and when relevant continuing to be taken) to mitigate and/or remedy the effect of the discharge.

Advice Note:

In accordance with condition (XX) in order to manage odour from the site consideration should be given to adopting the following management techniques: [add or delete as necessary]:

- stopping works
- selecting or changing raw materials to reduce the potential for odours to be created
- ensuring odour sources are adequately enclosed and that equipment is accessible for cleaning
- incorporate and monitor process operating conditions such as temperatures and pressures that will minimise odour, and monitor parameters that are important for good performance (e.g. dissolved oxygen in oxidation ponds, pressure drop and gas temperature in a biofilter, and chemical concentration for a chemical scrubber)
- conducting odorous operations during weather conditions that are most favourable for dispersion where no other mitigation option is available (e.g. avoid early morning and evenings, consider wind direction in relation to sensitive areas, avoid hot humid weather).

It is recommended that potential measures are discussed with the council's monitoring officer who will guide you on the most appropriate approach to take. Please contact the Team Leader Compliance Monitoring [specify area] on [monitoring@aucklandcouncil.govt.nz and/or phone number] for more details.

Guidance Note:

This condition can be imposed on consents where there is a medium or high risk that adverse odour may be generated from the activity being consented or where there have been complaints about the activity in the past i.e. shellfish processing plants, oxidation ponds. Please check with a Council specialist as to whether any additional conditions are necessary.