



COMMUNITY FACT SHEET

OFFENSIVE ODOUR

WHAT IS ODOUR?

An odour is perceived when chemicals in gas form stimulate the human olfactory system (your nose).

The human nose has hundreds of receptors, each coded by unique DNA to detect different odours, and therefore accounting for why different people have different sensitivity and reactions to smell. Scientists also suggest that the sense of smell is intimately associated with the formation of memories.

Reactions to odours can be very subjective. A smell may be pleasant to one person and unpleasant to someone else. This can make the objective assessment of odour difficult to achieve.

ODOUR LEGISLATION

EPA is the statutory authority, responsible for administering the *Environment Protection Act 1970*.

Under the Act is subordinate legislation, including the *State Environment Protection Policy (Air Quality Management) (SEPP)*, which sets out the framework used to protect the air environment from air pollution, including odour.

Legislative requirements are interpreted into operational conditions through a licence. All licences issued by EPA to industries include the following statement to protect the air environment and prevent a breach of s41(1) of the Act:

Odours offensive to the senses of human beings must not be discharged beyond the boundaries of the premises.

The legislation does not restrict the emission of odour beyond the boundaries of the premises, only odour that is offensive or adversely affects local amenity or aesthetic enjoyment (beneficial uses set out in the SEPP) of the air environment.

To this end, a discharge of offensive odour from premises that is not impacting on humans is unlikely to be a breach of section 41(1) of the Act or breach of standard licence or notice conditions.

EPA acts to protect the most sensitive receptors to odour in the environment. Sensitive receptors include homes, schools, public space adjacent to a residential area and hospitals, or places where a person's regular daily life might be affected by odour.

Sensitive receptors do not include public open space or places of work. EPA will normally only investigate community reports of offensive odour at sensitive receptors, but reports at non-sensitive receptors that

identify health effects from an odour will also be investigated.

WHAT IS OFFENSIVE ODOUR?

The Environment Protection Act does not define the term 'offensive to the senses of human beings'. The SEPP expands the concept of beneficial uses to include impacts to local amenity or aesthetic enjoyment.

People experience odours differently, so only the individual being affected can claim that the odour is offensive (affecting their amenity or aesthetic enjoyment). EPA can, therefore, only trigger an investigation into an odour complaint when odour is reported by a community member as being offensive.

Offensive odour affects the general life, health and wellbeing of an individual as a result of the intensity, character, frequency and duration of the odour.

The basis for acting against offensive odours may vary according to where the odour occurs. As an example, the normal agricultural odours present in a rural environment may not be considered offensive in an open paddock, but may be considered offensive in a residential area.

In order for EPA to take action on offensive odour, the odour must be verified and sourced by an environment protection officer who is accredited to assess odour and take statements from reporters. Human noses are the most sensitive instrument available to measure odour.

WHERE DO ODOURS COME FROM?

Odour can come from many different sources, but EPA becomes involved when offensive odour is generated from industrial and commercial premises.

Odour from domestic sources and some smaller commercial premises, such as shops and restaurants, should be referred to local council officers.

The strength and intensity of an odour depends heavily on the prevailing weather conditions and will vary with small changes in wind speed and direction.

At night or during colder months, atmospheric mixing is reduced and air close to the earth is trapped by a layer of colder air. In these conditions odours travel further and do not readily disperse.

During hot weather sites that generate odour, such as abattoirs or composters, may produce more odour due to the faster decay of material.

Wind can carry odours a long way from their source and sometimes disperse the odour before it can be investigated.

HOW YOU MIGHT BE AFFECTED

Odoriferous gases most commonly become an issue because of their nuisance value. It is rare that adverse health effects arise from exposure to odour.

However, when odours are persistent or strong, they can have a significant effect on the lifestyle, mental health and amenity of residents. Calls to EPA's pollution watchline show odour to be among the most disruptive issue individuals and local communities face.

REPORTING ODOUR

EPA relies on the community to report pollution incidents by phoning EPA's Pollution Watch Line on 9695 2777 or 1800 444 004.

EPA performs routine odour monitoring in particular areas, but community reports are the most effective way of detecting odour presence.

When an odour report is made, EPA collects information from the odour reporter to assist with the investigation.

Information collected will include:

- name and address of reporter
- time of detection of odour
- location of the odour
- character and strength of odour
- identity and location of alleged source (if known)
- length of time of the impact, and frequency if it has occurred before
- the impact of the odour on the reporter
- wind direction and strength.

EPA encourages the community to report any source of pollution, even odours that are brief or weak. In this way EPA develops better intelligence on the types and patterns of emissions affecting local areas and can use this information to develop proactive improvements with industry.

HOW DOES EPA INVESTIGATE OFFENSIVE ODOUR?

EPA prioritises its response to odour investigations according to the severity of the odour being reported, the likelihood of making a positive verification of the odour source, the number of reports received from sensitive receptors and the availability of accredited investigators.

All investigations require accredited EPA assessors. An accredited EPA assessor will confirm with the reporter that the odour present is the odour being reported.

Verification of the odour takes into account:

- the intensity of the odour
- the character of the odour and whether it is likely to cause offence
- the duration and persistence of the odour (for example, it fills the house or living area including outdoor areas, or it prevents opening of windows on a hot day).

The officer will then use an investigative process in order to track the odour to its source. This includes performing upwind and downwind assessments, assessing weather conditions and plotting the odour plume.

If EPA is able to locate the odour source, the reporter may be contacted for further details on how the offensiveness affected them, as well as willingness to develop a legal affidavit.

A breach of licence can only be confirmed where an EPA assessor has identified an odour at a sensitive receptor and traced it back to the boundary of licensed premises.

A breach of licence cannot be confirmed just by an EPA officer detecting odour at the site boundary, even though the licence condition states 'no offensive odours beyond the boundary'. This is because the offensiveness of the odour cannot be determined without first proving it has reached a sensitive receptor.

PROSECUTING ODOUR OFFENCES

If EPA can verify the odour, gather supporting evidence from the community member about its offensiveness and track the odour to the source, it can then pursue regulatory action, which will require the participation of the individuals reporting the offensive odour.

EPA will require individuals reporting offensive odour to sign sworn affidavits detailing the dates and precise times of the complaint, why and how the offensiveness of the odour affects their amenity and wellbeing, and more.

Individuals may be requested to attend court to give evidence. When community members are not willing to do this, it makes it difficult to build a successful court case against an odour offence.

EPA recommends that community reporters use a diary to help remember details of ongoing offensive odour incidents. A template is available from EPA.

In determining legal action, EPA will also consider:

- any formal EPA conditions regulating the site
- the frequency of past offensive odour events or the likelihood of future events
- the number of people impacted by offensive odour and the extent of the alleged odour's spread
- prevailing weather conditions.

The investigation and prosecution of offensive odours takes time and not all reports can lead to a prosecution, but the testimony of residents and their willingness to participate in the legal process is essential for EPA to reach successful prosecutions.

PLANNING TO PREVENT ODOUR

Most of the odour incidents reported to EPA are due to existing premises that have not been appropriately designed or located, or where housing has since been built up to an existing industrial site.

Local government administers planning schemes and has a key role in ensuring that planning permit applications for industry are properly assessed.

EPA publication AQ 2/86, *Recommended buffer distances for industrial residual air emissions*, gives guidelines for planning authorities to consider in the planning process. Councils also assess compliance with existing planning permits and can take action to address amenity and health issues.

WHAT CAN COMPANIES DO TO REDUCE ODOUR?

Many industries are progressively improving operations to reduce emissions. EPA expects continuous improvement to contemporary industry standards.

Installation of air emission control equipment, such as biofilters and scrubbers, and reduction of stockpiles can reduce potential odour sources. Some companies undertake odour audits to identify the main odour sources, or odour modelling to test the likely dispersion of odour from their premises. Following such assessments, they will then determine the best means for control. EPA works with such sites to achieve best-practice environmental performance.

BEING PROACTIVE ABOUT ODOUR

EPA's priority is to prevent offensive odour emissions. It will achieve this through effective regulation and working closely with industry to continually improve environmental standards by:

- applying licences to many larger industrial operations to regulate emissions
 - applying enforcement notices to require industries to change practices, install new equipment or conduct monitoring
 - issuing fines when activities can be shown to have breached licences or notices
 - working with industry to engage with their local communities and voluntarily make changes for the good of the environment
 - requiring environment action plans that detail site improvements to minimise off-site impacts
 - providing planning guidance on recommended buffer distances for industrial air emissions
- or
- conducting strategic area and point-source odour monitoring in situations where an ongoing offensive odour issue is alleged.

HOW EPA IS CHANGING LICENCE COMPLIANCE FOR ODOUR

EPA will reform all industry licences by December 2010. This program will require all licence-holders to assess compliance with their licences and report this in a publicly available annual performance statement.

This will see licence-holders also conducting investigations into odour reports they receive directly from the community and implementing improvements.

EPA will continue to audit licence holders periodically, to check their assessment processes. EPA will also still investigate reports of odour from the community that are received by the Pollution Watch Line.