

4 June 2020

Chris Bydder
EPA Victoria
Via email: Chris.Bydder@epa.vic.gov.au

Dear Chris,

Re: Comments on the contents of the draft Odour Surveillance Method

On behalf of the Clean Air Society of Australia and New Zealand's Odour Special Interest Group (OSIG) we would like to thank EPA Victoria for taking the time to prepare a draft field odour survey methodology.

Appropriate methods were discussed at length at the CASANZ Odour Workshop in Queenstown Conference in late 2019 and OSIG has been working on a national document in the background, based on the 0-6 VDI scale as voted by the participants.

As the OSIG Chair and Deputy Chair, Andrew and I would like to make the following comments and suggestions based on our experience and feedback we received:

- **Part 1**
 - There are a number of grammatical errors which do not take away from the document as a whole, but can lead to ambiguity with regard to the proposed methods and definitions. For example it would appear that frequency is used in some places where duration would be the correct term.
 - The document would benefit from a decision tree that helps the user select a method.
 - (1.1) Reference should be made to people who meet the butanol scale but can't smell the odour and how these people should not be used. For example, in olfactometry they would be respectively screened out, but this can't occur in the field with two people.
 - It may be relevant under Section 1.1 to record ambient weather, for example, sunny, overcast, cloudy etc.
 - (1.2) The use of a 3 point scale as opposed to a 7 point scale (0-6) moves away from the recognised methods and could lead to a lack of resolution when applied to assessing the effect of pollution controls or buffers. The majority of attendees at the CASANZ workshop in New Zealand voted that a 0-6 scale is better.

- (1.4) The frequency method (Table 2) is somewhat arbitrary.
 - Without recording odour “sniffs” over time, how can this be accurately assigned.
 - The challenge is that odour may be present over a very short period or a longer period, and standing in one location for a short period may miss the actual period. This challenge is present with all methods.
 - It may be prudent to use the term ‘duration’, as frequency in the FIDOL method refers to how often one is exposed, not how long over a period.
- We agree where possible that the field teams should consist of two people.
- **Part 2**
 - (2.2.1)
 - The document would benefit from clarity with regard to the timing of surveys and number.
 - Whilst we agree that timing of surveys is critical, and that they should be performed either randomly or worst case conditions (depending on the aim).
 - Having a suitably qualified odour field survey team close to a site may not be possible as they would have to travel;
 - The number of sampling visits (times) to each site will be dependent on what the aim is.
 - There would be benefit in defining the difference between systematic, stationary and downwind surveillance. At present depending at what point you read the document they can be confused. For example 2.2.1 is Stationary Downwind, but the figure below is Systematic Downwind. We acknowledge that these may be the same.
 - The document assumes full access to areas around a site. Reality is that often even partial access may not be available.
 - Transects – should be systematic with measurement points as evenly spaced as possible. This is especially important for defining a plume shape.
 - The methods requires wind speed and direction at an unobstructed point throughout the survey.
 - Does this require a weather station, if so what does EPA require?
 - Security may be a practical issue and may require another person (3 people).
 - Is this in addition to the measurements at the survey locations?
 - Guidance should be provided with regard to the difference between ground level and 10m heights if relying on BOM data.
 - For odour frequency, see comments above as to how this is determined.

(2.2.2)

- Comment is made with regard to having an allowance for source height. What is EPA's method for this?
- If the boundary of a plume is being measured, does EPA recommend recording data through the plume not just at the outside of the plume, as the plume may be variable and the extent may not be evident?
 - The plume may meander and the edge may not be evident requiring more points.
 - The centreline of the plume would be similar to the method for systematic above.
- The time noted for a round of surveillance (assuming a survey period while on site is 1 round) may underestimate the total time required, especially the minimum of 30 minutes.
- The variation in plume length of 20% would easily occur if the wind speed was a factor of two difference (which can easily occur between days, especially with light winds or different stability classes). By default this means 20 rounds (surveys)?
- The sectors may be better off being 22.5° increments (16) and not 32 separate increments.
- Interpretation
 - This section states the reasons but not how to actually interpret the data.
 - How would EPA analyse the data and draw a conclusion on the acceptability of an odour? For example, what is acceptable?

We would like to take the opportunity to offer to review the next draft version of the document and look forward to seeing it.

Regards,



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