

# Submission on Guideline: Dust Emissions

October 2021



## Status of this Submission

This Submission has been prepared through the Municipal Waste Advisory Council (MWAC) for the Western Australian Local Government Association (WALGA). MWAC is a standing committee of WALGA, with delegated authority to represent the Association in all matters relating to solid waste management. MWAC's membership includes the major Regional Councils (waste management) as well as a number of Local Government representatives. This makes MWAC a unique forum through which all the major Local Government waste management organisations cooperate.

This Submission therefore represents the consolidated view of Western Australia Local Government. However, individual Local Governments and Regional Councils may have views that differ from the positions taken here.

*This Submission will be considered by MWAC on Wednesday, 13 October.*

## Introduction

The Western Australian Local Government Association (Association) welcomes the opportunity to comment on the *Draft Guideline: Dust Emissions* (the Draft Guideline) on how the Department interprets and applies the legislation it administers. This Submission comments on the application of the Guideline as it relates to prescribed premises.

## General comments

Prescribed premises which are licenced by the Department of Water and Environmental Regulation (DWER) are currently monitored for fugitive dust emissions under the 2011 Department of Environment and Conservation (DEC) document, *A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities*. This guideline applies to fugitive dust emissions only. For point source emissions applicants are referred to the DWER Draft Guideline: Air Emissions 2019. At an DWER webinar, 13 September 2021, WALGA queried if two different sets of dust guidelines and standards (fugitive and point source) could potentially apply to a prescribed premise such as a C&D facility or brick making facility that processes and stockpiles material on site. DWER confirmed that both fugitive and point source guidelines would apply to the premises. The Association suggests that the guidelines for dust be consolidated, which will simplify and streamline the process for proponents and regulators.

The Draft Guideline applies to new, existing facilities and licence amendments. It should be noted that the guideline states the following:

“The guideline will not generally be used retrospectively, outside the department's normal licensing processes, to reassess existing facilities. However, in situations where there is evidence of unacceptable fugitive dust emission impacts from existing premises, the department may initiate a review of the licence, informed by this guideline, and new controls may be applied through licence conditions”.

At the DWER webinar, the Department clarified that the Draft Guideline will apply to proponents who seek amendments to existing licences. The application of this will potentially put additional conditions on existing prescribed premises.

The site classification assessment chart provided in the DEC 2011 guideline provides a simpler method for assessing fugitive dust impacts from a particular activity. Depending on the total score obtained from the assessment, prescribed premises fall into four classifications with recommended dust management monitoring for each classification.

The categories are:

| Site classification | Score     | Risk                       |
|---------------------|-----------|----------------------------|
| 1                   | Under 199 | Considered negligible risk |
| 2                   | 200-399   | Considered low risk        |
| 3                   | 400-799   | Considered medium risk     |
| 4                   | Over 800  | Considered high risk       |

In the new Draft Guideline applicants will now be required to:

1. Complete a screening analysis which comprises of a detailed questionnaire for new and existing premises
2. The outcome from step 1 refers applicants to a flow diagram to determine if a detailed screening analysis is or is not required
3. Compile information to support the screening analysis.

It appears from the flow diagram, including the Draft Guideline, that the triggers for a detailed analysis are:

- separation distances
- if there is an increase or a change in dust emissions
- where the emissions can't be determined.

The Association is of the view that the Department should maintain the 2011 site classification system for assessing fugitive emissions.

As part of the online consultation the Department requested feedback on whether the screening tool was effective in identifying when low level dust emissions do not require detailed assessment. WALGA considers the screening tool does not provide sufficient clarity to identify when low level dust emission/s do not require a detailed assessment because the guideline states:

“where screening analysis indicates dust, emissions are likely to be low level, the department may still request additional information or a detailed analysis in the following cases:

- Past experience of the department regulating similar premises;
- Known changes of receptor proximity in future; or
- Insufficient supporting information provided to the department.”

Therefore, even if a proponent determines that their facility produces low level dust emissions the Department may still request additional information or detailed analysis and the basis of this determination may not be available to the proponent as they would not know, for example, past experiences of the Department regulating similar premises. This has the potential to put additional conditions on existing facilities.

The Draft Guideline states “An exemption may also be provided by the department for a detailed analysis if the applicant considers the dust risk to be low even though the separation distance is not met.” However, the guideline does not discuss what information will be required by the Department in such an assessment.

Where the screening analysis may indicate that a detailed analysis of the potential dust impact is required the Draft Guideline lists analysis tools as priority and optional. Priority tools ensure the Department has the minimum information required to fully inform its review process while optional tools allow the applicant to select the most applicable tool for the prescribed premise. Priority and optional tools include:

| Priority tools                   | Description   |
|----------------------------------|---|
| Operational Dust Analysis (ODA)  | An ODA is a document detailing operations at a premises that are likely to emit dust, and how dust emissions are to be managed to minimise offsite dust impacts including: dust controls, monitoring, corrective actions and contingency actions.               |
| Location review                  | A location review considers the sensitive receptor distance, the nature of receptors, local meteorology and topographical features.   |
| Analysis of existing dust levels | This tool involves consideration of existing dust levels in ambient air, which can give an indication of cumulative impacts and the likelihood of an exceedance of dust criteria with contributions from proposed new premises or changes to existing premises. |
| Analysis of dust characteristics | This tool considers the characteristics of dust that can be emitted, including particle size distribution (PSD), composition and colour, which can influence the potential health or amenity impacts  |

| Optional tools                     |  |
|------------------------------------|--|
| Complaints Data                    | Complaints data analysis is the assessment of dust complaints made in the vicinity of existing premises. The department may refer to its internal complaints databases, and other sources of information, when reviewing applications for existing premises.   |
| Community survey/diary studies     | Community telephone or door-to-door surveys and diary studies can provide valuable information regarding the level and extent of dust impacts from existing sources.   |
| Dispersion modelling               | Because of the large uncertainties in estimating fugitive dust emission rates, modelling of fugitive dust emissions is generally not a reliable reflection of risk in a quantitative sense. If undertaken, modelling should be conducted in accordance with the department's Draft Guideline: Air emissions (Section 10 – Detailed analysis) and Air Quality Modelling Guidance Notes. |
| Comparison with similar operations | This tool allows for the performance of similar facilities to be used in support of a new application. It involves gathering information on the extent of impact and source characteristics of a similar operation.  |

The Draft Guideline states that

“The department expects that applications with potentially significant dust impacts will include multiple tools in the detailed analysis, including the use of site-specific data where possible. Each tool has its own strengths and limitations. Consequently, the value of the results of individual tools is enhanced if multiple independent lines of evidence that support each other are provided. Tools that use observational/empirical data are generally of higher value than theoretical approaches. The level of detail provided should be commensurate with the impact potential of the proposed works. When reviewing the dust analysis reports, the department may consider a range of additional factors such as: proposed technology, any complaints recorded by the department (existing premises), the compliance history and annual audit compliance reports (existing premises)”.

This commentary appears to indicate the Department expects applicants to use the majority of the tools listed in the guidelines, which is a potentially significant additional burden on proponents. A more streamlined approach would be to assign a level of risk from negligible to high commensurate to the level of analysis required.

### Further Clarification Required

Further clarification is needed in relation to undertaking modelling. The Draft Guideline: Dust emissions (fugitive) refer applicants to the Draft Guideline: Air Emissions (non-fugitive) which then refers the applicant back to the Draft Guideline: Dust emissions (fugitive).

- The Draft Guideline states “This document only covers the assessment of fugitive dust (dust which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening). *For guidance on point source emissions of dust, please refer to the department's Draft Guideline: Air emissions.*”
- The Draft Guideline further states “If undertaken, modelling should be conducted in accordance with the department's Draft Guideline: Air emissions (Section 10 – Detailed analysis) and Air Quality Modelling Guidance Notes”.
- However, in the Guideline: Air emissions within Section 2: Scope it states that “*Fugitive dust and odour emissions are not discussed in this guideline.* For guidance on these emission types, see Guideline: Odour emissions and *Guideline: dust emissions (under development)*”.