

Proposed Approach for the Implementation of Odour-Based Standards and Guidelines

A Summary of Comments ORTECH Intends to Submit to the MOE Relating to the “Proposed Approach for the Implementation of Odour-Based Standards and Guidelines”

- As stated, high intensity/highly offensive contaminants are to be selected for 10-minute odour-based *standards* while less intensive/less offensive contaminants are to be selected for 10-minute odour-based *guidelines*. Traditionally, the MOE has considered guidelines as legally binding once included in a CofA or Control Order. It is not clear in the position paper whether the MOE will treat odour-based standards and guidelines differently in terms of enforcement or Section 9 approvals.
- The MOE definition of the term intensity should be clarified so as not to confuse this with strength or odour concentration (odour units). A more accurate definition would be “intensity refers to an individual’s or group’s perception of odour by ranking into subjective categories such as no odour, slightly identifiable odour, moderately identifiable odour, strongly identifiable odour and extreme/severe odour”. It is worth noting that the level of intensity and/or offensiveness may vary significantly between individuals (i.e. one person may consider contaminant X to have a very intense and/or offensive odour while someone else considers the odour mildly intense and/or offensive).
- The basis for the selection of a 10-minute averaging period for all contaminants should be defined since shorter (e.g. 3 minutes) and/or longer (1 hour) averaging times may be more appropriate for certain contaminants or for certain process conditions such as intermittent or batch emission sources.
- The position paper proposes to select the use of the “best data set” of Odour Detection Thresholds (i.e. the number of dilutions at which 50% of individuals with “normal” sensitivity are able to detect an odour) to establish contaminant specific 10-minute odour-based standards and guidelines. It is recommended that the source of the selected data be documented and updated if necessary to reflect current knowledge about odour panel operating conditions (ORTECH experience has shown that odour detection thresholds for some contaminants may be lower by an order of magnitude or more compared to older published information).
- The proposed definition of a receptor as “a place frequented by humans” needs further clarification. The specific examples that are given (e.g. residences, camping grounds, etc., or other locations specified by the MOE) are quite restricted but a place frequented by humans could be considered to be almost anywhere (as alluded to by the statement “other locations as specified by the Ministry” following the examples). It may be helpful to define locations that will not be considered receptors for odour-based standards and guidelines (e.g. land zoned for industrial use, land zoned for future commercial/residential use but not yet developed, roadways, etc.). The MOE must consider providing a clear and consistent definition of receptors as it applies to odour-based standards and guidelines as well as an olfactometric-based guideline and points of impingement both on and off a facility property.

Proposed Approach for the Implementation of Odour-Based Standards and Guidelines

- It is understood and agreed that regardless of whether the facility meets the odour-based standards and guidelines at the defined receptor, the obligation to comply with Section 14 of the EPA (adverse effect) still exists. However, the MOE needs to develop a clear policy on how complaints are assessed (i.e. including verification) and make this information available to the facility.
- It is worth clarifying that due to the potential effects of mixtures of contaminants, meeting individual odour-based standards and guidelines does not ensure the facility will not have the potential to cause an adverse odour effect. This is important since in reality the majority of industrial facilities do not emit single contaminants.
- The rationale for the selection of the annual 0.15% frequency criteria (i.e. 13 1-hour exceedences are allowed in a given year) should be provided. Also, 13 exceedences in any given year are not consistent with the statement “it is proposed that a maximum 1 modelled exceedence of a 10-minute odour-based standard or guideline (at a specified receptor) every month would be acceptable” (i.e. is the criteria 0.15% for each month or 0.15% for the entire year or both?). It should also be clear that month refers to calendar month.
- The MOE may consider an alternative approach for defining acceptable levels (e.g. 0 exceedences of >10x’s the odour-based standard/guideline are allowed in a year, X exceedences between 5 – 10x’s the odour-based standard/guideline are allowed in a year and X + Y exceedences between 1 – 5x’s the odour-based standard/guideline are allowed in a year). However, similar to above, a clear and transparent basis for selecting the criteria is warranted.
- The MOE should consider defining annual criteria (either based on frequency or levels as discussed above) based on land use (i.e. the frequency criteria would be different for receptors located in industrial zones compared to residential/commercial).
- The MOE always has the option on a case-by-case basis to add more receptors or change the frequency guidelines and “exercise discretion” especially related to surrounding land use and the potential for land use to change over time. These “catch-all” conditions combined with the potential for varying regulator interpretation will lead to ambiguity and uncertainty. This makes it very difficult for facilities to have a reasonable degree of confidence that, upon submission, a Section 9 application for a Certificate of Approval will be approved and whether compliance will be maintained in the future even if no changes are made at the site.
- Applying the 10-minute maximum emission rate for an odour-based contaminant over the entire 1-hour period for use in the advanced models may be overly conservative for some emission sources. The position paper should provide clear guidance on an approach(es) acceptable to the MOE for calculating emission rates for short duration (<1 hour) sources.
- A logic flow chart stepping through the tiered approach will help clarify the proposal.
- The position paper should clearly describe if and when formal MOE notification is required when the modeled 10-minute concentration at a specified receptor is above odour based standards or guidelines.
- It is not clear whether Section 32 of Regulation 419/05 will apply giving facilities the opportunity to apply for relief from the odour-based standards and guidelines.