

## 9th IWA Odour & VOC/Air Emission Conference 26-27 October 2021 Bilbao, Spain

### ABSTRACT

#### NEW INTERNATIONAL GUIDELINE ON THE ASSESSMENT OF ODOR EXPOSURE USING DISPERSION MODELLING

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A new development on the first worldwide guideline on the assessment of odor exposure by using dispersion modeling is taking its first steps. At this stage, there are many initiatives around the world related to dispersion modeling but there is no specific guideline for odor modeling to our knowledge.

Modeling odors is complex and many of the guidelines on modeling published around the world fall short in treating this vector. Modeling odors often requires to forget about traditional dispersion modeling operating modes and to focus on exposure. Odors are perceived in seconds or minutes, not hours and this is key in calculating its impact on ambient air. Most odor incidents are generated during calm or very low wind speeds which do not facilitate the dispersion of an odor and that makes modeling challenging. Last, but not least, there is a need to investigate the role of Instrumental Odor Monitoring Systems (IOMS) on the evaluation of model performance.

There are also elements that need to be further investigated such as the chemical mechanisms of odors to avoid conservative treatment of odors, perhaps grouping "odor types" by their chemical nature, so that it will be possible in the future to treat differently odors emitted by a WWTP than those produced by a composting facility. This is an initiative promoted by 36 several experts around the globe in the area of modeling odors. The group is led by Mr. Günther Schaubberger and Ms. Jennifer Barclay. First meeting took place in August the 27th 2020 and there are planned monthly meetings. The aim of this paper is to report on the advances being done in this initiative.

Indicate preference of kind of presentation

- Oral Communication
- Poster

Indicate topic of your work for the conference:

- Policy and associated regulations for odour and air quality.
- Odour/VOC measurement, monitoring&sensor technologies.
- Odour/VOC perception, impact, formation and dispersion.
- GHG emissions particulate matter and industrial emissions.
- Source characterization and odour/VOC mapping.

- Odour/VOC abatement, mitigation and neutralization.
- Odour/VOC from waste water, sewer systems and livestock.
- Air emissions and sustainable solutions for waste handling
- Community engagement, social media and citizen action.
- Other (suggest a new topic):

The scientific committee may change the session where authors propose to include their works.