

Interactive comment on “Emissions of volatile organic compounds (VOCs) from concentrated animal feeding operations (CAFOs): chemical compositions and separation of sources” by Bin Yuan et al.

Anonymous Referee #1

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Greetings,

I have enjoyed reading this manuscript, and comparing it to previous publications in the field. Although the aircraft data were regional, the team has been successful discerning the CAFO emissions/VOCs from other sources. And although the road-passage measurements were only conducted once per site, good weather conditions were found (or selected!) and the results convincing. It is nice to see general agreement from the two approaches.

There are several places in the ms where I would suggest careful re-editing to correct

C1

minor mistakes, grammar, and/or clarify. Some examples follow:

line 28 'contributions to in the odor'

line 94 should clarify that measurements were only once per CAFO

line 97 is a run-on sentence

line 128 provide formulas for chemicals at first mention

line 128 'around' is imprecise; 'along the downwind flanks' might be better

line 137 since there was no access to the facilities, 'waste may be largely'

and near here it should be stated that 'waste cleaning time/practices are unknown'

line 147 'spatial distribution based on the variation observed (over a short time span of several minutes) while measuring along the downwind flanks' [I know this is 'wordy', but time variations implies watching a source as it varies over time (e.g. in the course of a day, from day to day, season to season, etc...)]

line 152 (although not known specifically here)

line 166 needs a reference

line 228 state estimated dilution(s), based on distance, and how much it varies across these data sets

lines 263-4 plus or minus how much

line 269 provide wind speed means

line 291 separating

line 316 prior to sampling

line 321 'strong' should be enumerated

lines 331-2 list numbers of each, as best as is known

C2

lines 341-4 grammar hard to follow long sentence

line 346 'measured downwind air to discern VOC...'

Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2016-1148, 2017.