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Interactive Comment

Interactive comment on "Modelling the impact of sub-grid scale emission variability on upper-air concentration" by S. Galmarini et al.

S. Galmarini et al.

Received and published: 8 November 2007

Reply to reviewer 3

We thank the reviewer for his positive and constructive comment on the paper. All editorial comments are included in the final version of the manuscript. Regarding specific comments:

1- We would rather stick to this definition that is not strictly scientific but allows to distinguish between the 'air' in the model where emission takes place and the 'air above it' where the concentration is calculated. We have tried to reduce its use in the text where more appropriate and specific concepts are expected.

2- This is true, however the method developed shows that the same concept can be applied at elevated levels provided that: a- the mesoscale model resolves it and not



everything falls within the first grid cell in the vertical b- a correlation is established with the closest levels of the model in exactly the same fashion This is particularly important in the case of chimneys or point releases for which the grid variance is very large.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 12289, 2007.

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Interactive Comment

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