

Interactive comment on “Modeling and computation of effective emissions: a position paper” by R. Paoli et al.

R. Paoli et al.

paoli@cerfacs.fr

Received and published: 25 June 2011

1) Common response to the three referees. We agree that validation is a critical task for atmospheric models. In addition to validation, verification is another important ingredient to assess the quality of physical models or computational methods as those described here. We added a new section (Sec. 6 in the revised version of the paper) to discuss these problems.

Specific comments

Typos: We corrected the typos and rephrased some sentences.

Page 138: However, in many large line-shaped sources, such as aircraft, ships or motorways, and large point sources, such as big factories of power plants, the emissions

C392

result in local concentrations up to several orders of magnitude larger than background concentrations (Schlager et al., 1997, 2006).

Page 143: We added at the end of Sec. 1 some details about the differences between the methods in (we also added the new Tab. 3 summarizing the main features of each method).

Page 145: ok we mentioned dilution.

Section 4.2: we rephrased; yes “mass” not emissions at line 6, page 154.

Page 158: LES (Large-Eddy Simulation) was introduced at page 144 line 7.

Page 160: we clarified (we mean “leads to ozone production”).

Interactive comment on Geosci. Model Dev. Discuss., 4, 137, 2011.