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Interactive Comment

Interactive comment on "Emission scenarios for air quality management and applications at local and regional scales including the effects of the future European emission regulation (2015) for the upper Rhine valley" by J.-L. Ponche and J.-F. Vinuesa

J.-L. Ponche and J.-F. Vinuesa

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We would like to thanks the reviewer #2 for his comments.

A. General comments

Following the referee's suggestion, we will include quantitative figures of the effect of these abatement strategies in the section "Summary and conclusion". Also, as asked by the referee in the specific comments, the first paragraph of section 5 will be removed.

Discussion Paper

B. Specific comments

P8549. The use of alternative fuels has been suggested at the end of the eighties in order to improve urban air quality by reducing combustion-related pollution. Indeed, reformulating the fuel (modification of the chemical composition of the fuel e.g. by lowering of the aromatic fraction, and/or addition of oxygenated compounds, as here the ethyl-tertio-butyl-ether or ETBE) allows the modification of the composition of the emissions due to the road traffic. ETBE is a renewable fuel whereas reformulation only concerns petrol refining process. This point will be clarified in the revised version.

P8550. The emission factors of NOx for the oxygenated fuels are higher that the one of the regular fuel used in this study, but this is not the case for the reformulated fuel.

P8557. In Table 6, we present the percentage of the total daily surface (area of the domain x 24 hours) where ozone levels are exceeding the information European threshold. In the revised version, we will clarify this point and modify the Table 6 and its caption accordingly.

P8558. As mentioned previously, the manuscript will be changed following referee's suggestions.

C. Technical corrections All the technical corrections mentioned by the reviewer will be made in the revised manuscript.

Interactive comment on Atmos. Chem. Phys. Discuss., 4, 8539, 2004.

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