

Interactive comment on “Xenon-133 and caesium-137 releases into the atmosphere from the Fukushima Dai-ichi nuclear power plant: determination of the source term, atmospheric dispersion, and deposition” by A. Stohl et al.

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As you refer to our paper, we also estimated the source term by a reverse estimation under the cooperation with the Nuclear Safety Commission of Japan. Our estimation method is based on monitoring data within several 10 to 100 km of the accident site. Meteorological input data and atmospheric dispersion model are also different. Thus, your paper is very interesting for us to make the accuracy of source term high by various methods. I think your final result is affected by initial guess. So, I recommend you to add two sensitivity analysis below. (1) As written in other short comments from Dr.

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Grasso and Dr. Prasser, I also think a large amount of release from the spent fuel pool of Unit 4 is doubtful from the fact of measurement of pool water and video analysis. To respond these comments, you should add one sensitivity analyses in which the release amount from Unit 4 is excluded from initial guess. If final result is the almost same as previous one, it may mean that higher releases occurred from other units. (2) I guess your method can estimate source term even if initial guess is a constant unit release (1 Bq/h). So, if possible, can you try it to eliminate the influence of initial guess on final results?

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