## **Responses to the Editor's Comments**

(1) Please clean the source code archive (PMCAMx\_v2.0.tar.gz) from any temporary or compiled binary files, which include: 325 \*.o files and several \*.swp/\*.swo files (.trap.f.swp, CMC/.rateslo5.f.swo, CMC/.rxnrate5.f.swp, IO\_bin/.readar.f.swp).

These files have been removed from the archive and re-uploaded to the zenodo site.

(2) Should Carter 1999 be changed to Carter 2000 with additional bibliographic info (as cited, e.g., here: https://intra.engr.ucr.edu/~carter/pubs/,

https://gmd.copernicus.org/articles/10/2397/2017/gmd-10-2397-2017.pdf): Final Report to California Air Resources Board Contract 92-329 and Contract 95-308 ... 2000.

Assuming CiteSeerX repositories are permanent, it seems that an URL can be provided for the above (please check and confirm):

https://citeseerx.ist.psu.edu/doc\_view/pid/71f7566ae19ae551b3d214c0fc54250ebc399743 The Carter reference for the SAPRC mechanism has been updated as suggested.

(3) Please double check the year of CAMx 4.20 documentation reference; it is cited as ENVIRON 2005 elsewhere, e.g.,

on page 297 here: https://books.google.com/books?id=5rISBwAAQBAJ This reference has been updated as suggested.

- (4) Please double check the year of Eyth & Vukovich entry, if it shouldn't be 2015 as here: https://www.epa.gov/sites/default/files/2015-10/documents/2011v6\_2\_2017\_2025\_emismod\_tsd\_aug2015.pdf
  It should be 2015. This has been updated.
- (5) Order of references Zakoura & Pandis 2019 and 2018 should likely be switched in the reference list

This has been fixed in the manuscript.

- (6) Please match case across ENVIRON (in the reference list) and Environ (when citing) This has been fixed in the manuscript.
- (7) Please add DOI for Pan et al. 2017: https://doi.org/10.1016/j.atmosenv.2017.06.026 This has been added to the manuscript.
- (8) Please update bibliographic entry for Tsimpidi et al. 2010 so it refers to final published paper and not pre-review paper

(10.5194/acpd-9-13693-2009 -> https://doi.org/10.5194/acp-10-525-2010) This has been fixed in the manuscript.

(9) The link in U.S. EPA 2002 entry no longer works A new, valid link has been added to the reference.

## **(10)** Typos:

- p4/l116: regards -> regard

- p5/l158: norther -> northern
- p12/1340: seen the -> seen in the
- p13/1382: regards -> regard
- p16/1484: need additional -> need for additional
- p18/l546: application -> application

These typos have all been corrected in the manuscript.

- (11) Please add "USA" to all US institutional addresses in the affiliations This has been added to the author list.
- (12) Please aim at making the Supplement figures essentially readable without interpreting colors by using different types of lines (Figs S1, S2) and symbols (Figs 5, 6, S3, S4)
  Different lines and symbols have been added to Figs S1, S2, 5, and 6. The individual datasets in Figures S3 and S4 have their own axes for interpretability.