Dear Editor Egorova,

Thank you very much for handling our manuscript. We have addressed the comment and incorporated it in the revised manuscript.

Thank you for your consideration.

Sincerely,

Lin Zhang, Ruize Sun, Xiao Lu et al.

[Comment] During the revisions, you included a link to the HEMCO modules Git repository in the section on code and data availability, which does not comply with GMD's "Code and Data Policy": https://www.geoscientific-model-development.net/policies/code_and_data_policy.html. Git repositories are not acceptable for scientific publication. Only after you address this issue, your manuscript can be published in GMD.

[Response] We thank the editor for pointing out this issue. We have now archived the exact version of the HEMCO modules used in this study in a permanent public repository that provides a DOI:

"Code availability. The GEOS-Chem model is maintained at the Harvard Atmospheric Chemistry Modelling group, which can be obtained at https://doi.org/10.5281/zenodo.7271960 (last access: 1 April 2025). The HEMCO modules used in this paper is permanently archived at https://zenodo.org/records/18862941 (Sun, 2026b). The BCC-GEOS-Chem v2.0 code can be accessed at a DOI repository https://zenodo.org/records/18448688 (Sun, 2026a), and model outputs for 2012–2014 are available at https://zenodo.org/records/16734757 (Sun, 2025). All source code and data can also be accessed by contacting the corresponding authors Lin Zhang (zhanglg@pku.edu.cn)."