Thank you for your careful read of the manuscript. We have incorporated all of these suggestions into the final ms. Note that line numbers refer to the document with tracked changes.

I have relatively minor comments on this version of the manuscript. My biggest comment is:

1. Can the authors please emphasize throughout, especially for readers who are less familiar with the performance of the PMS5003 and PurpleAir sensors, that the PAS typically underestimates dust concentrations even before the EPA corrections are applied? The issue lies with limitations of the PMS5003 sensor, which the authors discuss on lines 65-67, and not just the EPA corrections. The EPA corrections make the existing underestimation even worse because they're optimized for the more commonly-observed urban and wildfire smoke pollution events. Can the authors put the raw PurpleAir data back in Figure 1?
Done. I have added the raw PA data back into Figure 1.

Some specific examples of text that I think could be revised to address this concern:
a. Lines 216-217: The authors could revise "…, indicating that both correction equations are significantly under-estimating the true concentrations by a factor of 6 or more." as something like "The raw PAS PM2.5 CF=1 values, the raw PAS PM2.5 CF=Atm values, the PM2.5 concentrations calculated using the Barkjohn 2021 correction, and the PM2.5 concentrations calculated using the new EPA correction all significantly underestimate the true PM2.5 concentrations."
I have added text along these lines (line 219).

b. Lines 228-229: The authors could revise "but they generate a large negative (low) bias for dust events." as "but they exacerbate the negative (low) bias for dust events."
I have added text along these lines (line 234).

c. Lines 243-244: "We show above that the PAS data, for both corrections, are substantially under-reporting PM2.5 concentrations during dust events." This is true, but the raw PAS data are also substantially under-reporting PM2.5 concentrations during dust events, right?
Yes, I have added the text here for greater clarity (line 249).

d. Lines 282-283: "…but for this group the PAS Barkjohn 2021 correction significantly underestimates the regulatory concentrations."
Not sure what is being suggested here.

2. Line 46: There is an extra "(" before "map.purpleair.com"
Corrected.

3. Line 72: I suggest revising "although the exact procedure is not documented by PurpleAir" as "although the exact procedure is not documented by Plantower". The PM1, PM2.5, and PM10 concentrations are reported by the Plantower sensor itself and I doubt that PurpleAir has access to Plantower's algorithms.
I have added Plantower to this sentence, as suggested.(line 73)

4. Line 73: "A number of field and laboratory studies have found that the PMS5003 size distributions are not correct." I think this sentence would be easier for readers to understand if the phrasing was more precise. I suggest revising as "A number of field and laboratory studies have found that the particle number size distributions reported by the PMS5003 are not correct."
Changed. (Line 75)

5. Line 95: "…but biased high compared to regulatory PM2.5 measurements." I suggest rephrasing this as "…but are often biased high compared to regulatory PM2.5 measurements in the United States." I suggest adding this qualifier "often" because, as the authors show in their results, PAS measurements underestimate PM2.5 concentrations for windblown dust. I suggest adding "in the United States" (or "in North America") because most of these studies took place in the U.S. and

results might be different in other parts of the world where PM2.5 concentrations and compositions are different. For example, the PMS5003 sensors are reportedly calibrated using ambient aerosol in Beijing, and they might not underestimate reference PM2.5 measurements there.
Changed. (Line 97-98).

6. Line 203: I think there are some words missing from this sentence. I suggest revising as: "…which provides 1366 hours of data spanning a 3.3-year period."
Changed. (Line 207)

7. Lines 257-259: "For the PAS data, we use the raw values for PM2.5 and PM10, since there are no known correction algorithms for the PM10 data." Did the authors use the CF=1 PM2.5 and PM10 values or the CF=Atm PM2.5 and PM10 values for these calculations? Please specify in the text and in the captions for Figure 3and Figure S6.
Yes, these are CF=1. Changes made (Line 264 and in figure captions).

8. It would be helpful if the authors could add 1:1 lines to the graphs shown in Figures 5, 6, S7, S8, and S9.

Done.

Finally, please note that a few details on the Keeler site were updated with current information from Chris Howard, Great Basin Unified Air Pollution Control District (lines 201-205, highlighted)